

Appeals Case Management System (ACMS) Deliverable Acceptance

This attached form is the deliverable acceptance form for the Appeals Case Management System (ACMS) Project. The purpose of the form is to have a formal acceptance of contractor deliverables; to ensure deliverables are tracked and all events are recorded; and to ensure a copy of each deliverable and all supporting materials are filed in the project library. Deliverable management is necessary to ensure the state only accepts deliverables that meet contract requirements and contractors are only paid for acceptable deliverables.

The deliverable is submitted for acceptance after the deliverable has been reviewed and approved through various project staff, users and stakeholders to ensure their needs will be met. Thus when this process is invoked, the deliverable should be complete and ready for signature. Reviews of early drafts are encouraged to ensure a smooth and timely final approval review.

Appeals Case Management System (ACMS) Deliverable Acceptance Form Request for Acceptance

Date:	10/28/14
Submitted By:	Rick Murphy
Submitted To:	Manuel Romero
Project:	ACMS

Deliverable Description: The ACMS Requirements Report is a working document that presents the Business Process Model, Business Reference Model, Functional and Non-Functional Requirements.

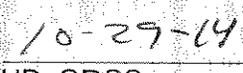
Title of Deliverable: Appeals Case Management System Requirements Report Version 3.0, 10/21/14

Soft Copy Location: DSS Common ACMS

Due Date: 10/30/14

Reviewers (note comments not resolved): None

Approval Signatures and Title:

Approval	Date
 Rick Murphy, ACMS Project Manager	
 Manuel Romero, Chief Administrative Law Judge, SHD, CDSS	

Signature for Pending Acceptance

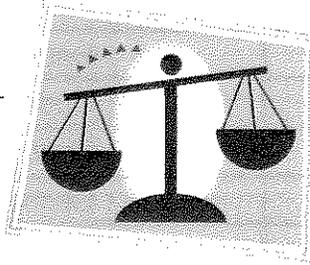
Signature _____ Date _____

Name _____ Title _____

Rejection Comments:



**Office of
Systems
Integration**
"SERVING CALIFORNIA"



Appeals Case Management System Project

Requirements Report

Version 3.0, October 29, 2014

Health and Human Services Agency, Office of Systems Integration

Revision History

REVISION HISTORY			
REVISION/ WORKSITE #	DATE OF RELEASE	OWNER	SUMMARY OF CHANGES
Initial Draft	July 12, 2014		Initial Structure
Section 1. Draft	August 13, 2014		Section 1-3. populated
0.1	August 15, 2014		Updates to content and format
0.2	August 28, 2014		Section 3.2.4 populated
0.3	August 29, 2014		Sections 4-5 populated
0.4	August 29, 2014		Sections 6 and 7 populated
0.5	August 30-31, 2014		Formatting and style edits Consistency fixes.
Draft 1.0	September 1, 2014		Draft 1.0 published.
Draft 1.1	September 29, 2014		Entire Document: <ul style="list-style-type: none"> • Addition of Document Search Component • “Workflow” to “Business Process Management” • PDF adopted as standard for output Other minor changes documented via track changes.
Draft 2.0	October 3, 2014		Draft transmitted for review for approval
Draft 2.1	October 10, 2014		Incorporated formatting edits
Draft 2.2	October 28, 2014		Added one requirement to clarify languages to be supported
Final Draft 3.0	October 29, 2014		Final Draft transmitted for approval

Approvals

NAME	ROLE	DATE
Manuel Romero	Chief Administrative Law Judge CDSS	10/29/2014
Rick Murphy	Project Manager OSI	10/29/2014

CONTENTS

1. INTRODUCTION	7
1.1 PURPOSE	7
1.2 SCOPE	7
1.3 ABBREVIATIONS AND ACRONYMS	8
1.4 REFERENCES	10
2. ACMS PROJECT BACKGROUND	12
2.1 ACMS PROJECT PURPOSE	12
2.2 ACMS PROJECT GOAL AND RELATED OBJECTIVES	13
3. APPROACH TO REQUIREMENTS FOR ACMS SOLICITATION	14
3.1 REQUIREMENTS DEFINITION	14
3.2 APPROACH TO DETERMINING FUNCTIONAL REQUIREMENTS	15
3.2.1 <i>Work Group Identification and Interview Sessions</i>	16
3.2.2 <i>Document and Develop Business Reference Model (BRM)</i>	16
3.2.3 <i>Develop Business Process Model (BPM)</i>	17
3.2.4 <i>Develop a Business Capabilities Framework</i>	18
3.2.5 <i>Representative Detailed Functional and Non-Functional Requirements</i>	19
3.3 APPROACH TO DETERMINING NON-FUNCTIONAL REQUIREMENTS	21
3.3.1 <i>Business Goals, Functional Requirements, and NFRs</i>	22
4. ACMS BUSINESS REQUIREMENTS	24
4.1 FSR-DERIVED BUSINESS REQUIREMENTS	24
4.2 IAPD-DERIVED BUSINESS REQUIREMENTS	27
5. ACMS FUNCTIONAL REQUIREMENTS	37
5.1 USER GROUPS	37
5.2 FUNCTIONAL REQUIREMENTS BY COMPONENT	38
5.2.1 <i>Business Process Management Component Requirements</i>	39
5.2.2 <i>Business Rules Component Requirements</i>	41
5.2.3 <i>Claimant Search Component Requirements</i>	43
5.2.4 <i>New Claimant Component Requirements</i>	44
5.2.5 <i>Appeal Case Search Component Requirements</i>	46
5.2.6 <i>New Appeal Case Component Requirements</i>	47
5.2.7 <i>Route Case Task Requirements</i>	48
5.2.8 <i>Assign Case Task Requirements</i>	49
5.2.9 <i>Update Case Task Requirements</i>	49
5.2.10 <i>Scheduling Component Requirements</i>	50
5.2.11 <i>Schedule Case Task Requirements</i>	56
5.2.12 <i>Notification Template Component Requirements</i>	57

5.2.13	<i>Notification Task Requirements</i>	60
5.2.14	<i>Document Template Component Requirements</i>	61
5.2.15	<i>Add Documents Task Requirements</i>	64
5.2.16	<i>Case Notes Component Requirements</i>	65
5.2.17	<i>Add Notes Task Requirements</i>	66
5.2.18	<i>Case Recording Component Requirements</i>	66
5.2.19	<i>Add Recording Task Requirements</i>	68
5.2.20	<i>Content and Navigation Component Requirements</i>	69
5.2.21	<i>Voice Navigation Component Requirements</i>	71
5.2.22	<i>Reporting Component Requirements</i>	71
5.2.23	<i>Help and Support Component Requirements</i>	73
5.2.24	<i>Security and Access Control Component Requirements</i>	74
5.2.25	<i>Document Search Component Requirements</i>	77
6.	ACMS NON-FUNCTIONAL REQUIREMENTS	78
6.1	USABILITY REQUIREMENTS FOR ACMS.....	78
6.1.1	<i>Usability Background</i>	78
6.1.2	<i>ACMS Usability Requirements by Characteristics</i>	80
6.2	ACMS SYSTEM ARCHITECTURAL CONSIDERATIONS	86
6.2.1	<i>Enterprise Architectural Context</i>	86
6.2.2	<i>ACMS Technical Capabilities</i>	87
6.2.1	<i>Building Blocks for ACMS</i>	90
6.3	ACMS TECHNICAL ARCHITECTURAL REQUIREMENTS	93
6.4	ACMS TECHNICAL REQUIREMENTS BY CHARACTERISTIC.....	97
6.4.1	<i>Performance Requirements</i>	97
6.4.2	<i>Compatibility Requirements</i>	99
6.4.3	<i>Reliability Requirements</i>	100
6.4.4	<i>Security Requirements</i>	101
6.4.5	<i>Maintainability Requirements</i>	104
6.4.6	<i>Portability Requirements</i>	105
7.	APPENDICES	107
7.1	APPENDIX A. DESCRIPTIONS OF TECHNICAL ATTRIBUTES IN TECHNICAL REQUIREMENTS.....	107

List of Figures

FIGURE 3-1 ACMS BUSINESS CAPABILITIES FRAMEWORK.....	19
FIGURE 3-2 ACMS SOLICITATION REQUIREMENTS FRAMEWORK.....	20
FIGURE 3-3 TRACEABILITY OF TECHNICAL CAPABILITIES AND NON-FUNCTIONAL REQUIREMENTS.....	23
FIGURE 6-1 CEAF 2.0 SOA REFERENCE ARCHITECTURE	86
FIGURE 6-2 TECHNICAL CAPABILITIES AND THEIR DEPENDENCIES IN ACMS.....	88
FIGURE 6-3 BUILDING BLOCKS FOR ACMS	90

List of Tables

TABLE 1-1 ABBREVIATIONS AND ACRONYMS USED IN THE DOCUMENT	8
TABLE 1-2 REFERENCES USED IN THE DOCUMENT.....	10
TABLE 1-3 REFERENCES USED IN THE DOCUMENT.....	11
TABLE 3-1 ARCHITECTURAL FEDERAL OR STATE STANDARDS AND GUIDELINES	22
TABLE 4-1 FSR REQUIREMENTS	24
TABLE 4-2 IAPD REQUIREMENTS	27
TABLE 5-1 USER GROUPS IN ACMS.....	37
TABLE 5-2 BUSINESS PROCESS MANAGEMENT COMPONENT REQUIREMENTS.....	39
TABLE 5-3 BUSINESS RULES COMPONENT REQUIREMENTS	41
TABLE 5-4 CLAIMANT SEARCH COMPONENT REQUIREMENTS.....	43
TABLE 5-5 NEW CLAIMANT COMPONENT REQUIREMENTS	45
TABLE 5-6 APPEAL CASE SEARCH COMPONENT REQUIREMENTS	46
TABLE 5-7 NEW APPEAL CASE COMPONENT REQUIREMENTS	47
TABLE 5-8 ROUTE CASE TASK REQUIREMENTS.....	48
TABLE 5-9 ASSIGN CASE TASK REQUIREMENTS	49
TABLE 5-10 UPDATE CASE TASK REQUIREMENTS	49
TABLE 5-11 SCHEDULING COMPONENT REQUIREMENTS	50
TABLE 5-12 SCHEDULE CASE TASK REQUIREMENTS	56
TABLE 5-13 NOTIFICATION TEMPLATE COMPONENT REQUIREMENTS.....	57
TABLE 5-14 NOTIFICATION TASK REQUIREMENTS.....	60
TABLE 5-15 DOCUMENT TEMPLATE COMPONENT REQUIREMENTS.....	61
TABLE 5-16 ADD DOCUMENTS TASK REQUIREMENTS	64
TABLE 5-17 CASE NOTES COMPONENT REQUIREMENTS.....	65
TABLE 5-18 ADD NOTES TASK REQUIREMENTS.....	66
TABLE 5-19 CASE RECORDING COMPONENT REQUIREMENTS.....	67
TABLE 5-20 ADD RECORDING TASK REQUIREMENTS	68
TABLE 5-21 CONTENT AND NAVIGATION COMPONENT REQUIREMENTS.....	69
TABLE 5-22 VOICE NAVIGATION COMPONENT REQUIREMENTS.....	71
TABLE 5-23 REPORTING COMPONENT REQUIREMENTS.....	71
TABLE 5-24 HELP AND SUPPORT COMPONENT REQUIREMENTS	73
TABLE 5-25 SECURITY AND ACCESS CONTROL COMPONENT REQUIREMENTS.....	75
TABLE 5-26 DOCUMENT SEARCH COMPONENT REQUIREMENTS.....	77
TABLE 6-1 USABILITY CHARACTERISTICS DEFINITIONS.....	79

TABLE 6-2 ACMS USABILITY – FITNESS FOR PURPOSE REQUIREMENTS	80
TABLE 6-3 ACMS USABILITY – LEARNABILITY REQUIREMENTS.....	81
TABLE 6-4 ACMS USABILITY – OPERABILITY REQUIREMENTS.....	82
TABLE 6-5 ACMS USABILITY – USER ERROR PROTECTION REQUIREMENTS.....	83
TABLE 6-6 ACMS USABILITY – USER INTERFACE AESTHETICS REQUIREMENTS.....	84
TABLE 6-7 ACMS USABILITY – ACCESSIBILITY REQUIREMENTS	85
TABLE 6-8 GROUPS OF CAPABILITIES FOR ACMS AND REPRESENTATIVE FRS	88
TABLE 6-9 GROUPS OF ACMS FUNCTIONAL REQUIREMENTS.....	91
TABLE 6-10 ACMS ARCHITECTURAL REQUIREMENTS.....	93
TABLE 6-11 ACMS PERFORMANCE REQUIREMENTS	97
TABLE 6-12 ACMS CAPACITY ASSUMPTIONS.....	98
TABLE 6-13 ACMS TRANSACTION TYPES AND THEIR PERFORMANCE GOALS	98
TABLE 6-14 ACMS COMPATIBILITY REQUIREMENTS.....	100
TABLE 6-15 ACMS RELIABILITY REQUIREMENTS.....	101
TABLE 6-16 ACMS SECURITY REQUIREMENTS	102
TABLE 6-17 APPLICABLE INFORMATION SECURITY STANDARDS AND GUIDELINES.....	103
TABLE 6-18 ACMS MAINTAINABILITY REQUIREMENTS	104
TABLE 6-19 ACMS PORTABILITY REQUIREMENTS	105
TABLE 7-1 DESCRIPTIONS OF TECHNICAL ATTRIBUTES IN TECHNICAL REQUIREMENTS.	107

1. INTRODUCTION

1.1 Purpose

The purpose of this document is to provide:

- The scope of requirements elicitation, documentation, and management activities during the ACMS pre-solicitation phase;
- The approach implemented to elicit, document, and manage ACMS functional and non-functional requirements during the pre-solicitation phase;
- The functional and non-functional requirements that provide the requisite level of detail useful for ACMS solicitation purposes.

This document is a work product resulting from tasks 2.1 and 3.1 corresponding to Agreement number 71531186, and described as follows:

- Task 2.1 ACMS Business and Usability Requirements - Collaborate with ACMS subject matter experts and key stakeholders to identify, develop and document business and usability requirements for the replacement ACMS;
- Task 3.1 ACMS Technical Requirements - Collaborate with ACMS subject matter experts and key stakeholders to identify, develop and document system design technical specifications. Specifications shall cover functional, technical and performance requirements for the replacement ACMS.

Given that this document is created in the pre-solicitation phase of the ACMS Project, this document focuses on the functional and non-functional requirements for vendors to satisfy in subsequent ACMS' solution proposals.

This requirement document reflects the services to be provided by Alexan International, Inc. hereinafter referred to as the "Contractor," for the State. This Document is governed by and incorporates by reference the terms and conditions of the MSA-IT number 5137002-107.

1.2 Scope

This document focuses on pre-solicitation activities for ACMS related to identifying and documenting requirements that are relevant for inclusion into corresponding solicitation documents. With that in mind, the scope for this document is defined by the following:

- Contains functional requirements elicited and documented during the pre-solicitation phase that must be included in ACMS solicitation document(s) for vendors to consider as they propose solutions, and necessary for CDSS to consider while evaluating subsequent proposed ACMS solutions
- Contains technical (i.e. Non-functional) requirements elicited during the pre-solicitation phase that must be included in AMCS solicitation document(s) for

vendors to consider as they propose solutions, and necessary for CDSS to consider while evaluating subsequent proposed ACMS solutions

- Contains architectural and technological requirements and preferences as identified by standards applicable to ACMS (including MITA 3.0)
- Does *not* cover the processes that will be developed and used by the project to manage changes to requirements *after* a vendor has been selected
- Provides a representative set of detailed functional and non-functional requirements
- Intended to *only* provide the approach, work effort, and corresponding work products associated with Tasks 2.1 and 3.1 as described in section 1.1 of this document.

1.3 Abbreviations and Acronyms

Table 1-1 Abbreviations and Acronyms used in the Document

Entry	Description
ACMS	Appeals Case Management System
BP	Business Process (BPs when plural)
BPE	Business Process Engine
BPM	Business Process Model
BR	Business Rule (BRs when plural)
BRE	Business Rule Engine
BRM	Business Reference Model
CDSS	Department of Social Services
EA	Enterprise Architecture
FR	Functional Requirement (FRs when plural)
IADP	Implementation Advance Planning Document
IEEE	Institute of Electrical and Electronics Engineers

Entry	Description
IT	Information Technology
NFR	Non-Functional Requirement (NFRs when plural)
OSI	Office of Systems Integration
RA	Reference Architecture (RAs when plural)
RR	Requirements Report (This Document)
RTM	Requirements Traceability Matrix
SDLC	Systems Development Life Cycle

1.4 References

The following table provides a description of references used in the document.

Table 1-2 References used in the Document

ID	Description
TAAR	Technical Approach Analysis Report; see ACMS Project SharePoint Portal
ACMS-BRM	Business Reference Model for ACMS; see ACMS Project SharePoint portal
ACMS-BPM	Business Process Model for ACMS; see ACMS Project SharePoint portal
Process Narrative Flow	The document that narratively describes the inputs, outputs, key process, and key functions represented in the BRM. See the ACMS Project SharePoint Portal
CEAF-RAs	CEAF 2.0 Reference Architectures: http://www.cio.ca.gov/wiki/Enterprise%20Architecture%20Documents.ashx
OSI-BP	OSI's Best Practices website, http://www.bestpractices.cahwnet.gov
Work Group Participants	The document that contains the names and titles of the participants that provided input during requirement elicitation interviews and workgroup sessions. See the ACMS Project SharePoint portal.
MITA	Medicaid Information Technology Architecture – architectural standard required for Federal funding. MITA documentation

Table 1-3 References used in the Document

ID	Description
FSR	Feasibility Study Report is the formally documented output of a feasibility study. Typically summarizes results of the analysis and evaluations conducted to review the proposed solution and investigate project alternatives for the purpose of identifying if the project is really feasible, cost-effective and profitable. It describes and supports the most feasible solution applicable to the project.
Other CA Systems	Other IT system deployed by the State of California.

2. ACMS PROJECT BACKGROUND

2.1 ACMS Project Purpose

It has long been identified that California Department of Social Services State Hearings Division's (SHD) State Hearings System (SHS) no longer meets the business needs of the SHD. Since the initial business requirements were identified and implemented in the system, three decades of business changes have occurred; most notably additional reporting needs, user's needs, information security changes, increased workload demand, and new information tracking requirements. Some of these requirements have been addressed through the development of ad-hoc, downstream applications. However, these applications have not been designed for long term sustainability and the design does not allow for responsive changes to user needs or technology changes, nor does it satisfactorily address information security concerns (such as HIPAA requirements). With these needs in mind, the ACMS Project was formed to replace the antiquated SHS.

The purpose of the ACMS Project is to provide an automated system that will:

- Replace the existing State Hearing System (SHS) currently used to manage state hearings at CDSS. The SHS consists of a mainframe application with 22 ad-hoc applications and numerous manual processes. The new system will be a modern, integrated system making use of current technologies and functionalities while providing a single workflow, including hearings and proposed decisions processes.
- Provide a single integrated case management system which can combine claims/appeals intake, scheduling, tracking, disposition, and reporting functionalities into a single automated business solution.
- Support federal HIPAA requirements.
- Support State of California multi-language requirements.
- Provide future system growth capabilities and interoperability with other statewide California Health and Human Services (CHHS) agencies and applications such as: SAWS, SURGE – DHCS, CalHEERS, HHS and CWS-NS, counties, Covered California.
- Provide the public a portal allowing for on-line hearing requests and to check the status of existing hearings.

2.2 ACMS Project Goal and Related Objectives

The goal for the ACMS Project as documented in the ACMS Project Charter is as follows:

The primary goal of the ACMS Project is to provide an automated solution to support the current and foreseeable business management needs of CDSS hearings and appeals staff, while leveraging existing state systems and improving interoperability, where possible.

The key project objectives are as follows:

- Automate, improve and standardize the appeals and claims communication and business processes between business partners which include Covered California, DHCS, and the 58 California counties.
- Reduce the average life cycle of an open appeals case, from receipt of the hearing request to release of the decision by 14%, from 105 days to 90 days, within one year after implementation.
- Provide the capability to produce 100% of notifications to the public in English and the twelve additional languages (Chinese, Russian, Spanish, Vietnamese, Arabic, Armenian, Cambodian, Farsi, Hmong, Korean, Lao, and Tagalog) required by the *Be Vu et al v. Mitchell and Bolton* lawsuit, within the first month of implementation.
- The three existing sub-system functions identified as “Sound Recording Application”, “Audio Transfer”, and “Auto Upload Log Database”, will be integrated into a single ACMS business solution. The solution will provide 100% of the existing functionality and be made available in ACMS, within 30 days after implementation.
- The amount of time spent by the SHD staff on a monthly basis specifically for the manual calculation and review of penalties due to untimely release of decisions will be reduced from 65 hours to 20 hours, a decrease of 69%, within six months after implementation.
- The three existing sub-system functions identified as “Decision System”, “Decision Archive” and “Decision Release” will be integrated into a single ACMS business solution. The solution will provide 100% of the existing functionality and be made available in ACMS, within 30 days after implementation.
- Enhance the potential to support state-wide interoperability business strategies by using the Medicaid Information Technology Architecture (MITA) and the California Enterprise Architecture Framework (CEAF 2.0) to identify and document business and technical requirements and to therefore better analyze solutions.
- Consolidate the SHD main case management database with 22 downstream systems into one comprehensive case management system

- Provide the capacity for secure interfaces with CalHEERS, SAWS Consortia, DHCS SURGE, and HHS systems.
- Provide online web data input, review, or case status by benefit applicants/recipients, Authorized Representatives (ARs), and other stakeholders.
- Deploy a web-based county dashboard, that provides the capability to view a list of cases scheduled for hearing, view general case status, upload documents to case files, create a Statement of Positions, etc. used to review evidence and decisions, and the ability to withdraw a hearing request upon agreement with claimant, and notify stakeholders.

3. APPROACH TO REQUIREMENTS FOR ACMS SOLICITATION

In order to achieve the ACMS project objectives, the system's requirements must be carefully identified and documented. These requirements will provide a point of reference in order for vendors to successfully propose a system that meets CDSS business needs. As such, the project's definition of requirements, and the approach implemented to elicit and document requirements is described in the following sections.

Furthermore, the approach for technical requirements adopted in the document is based on the Technical Approach Analysis Report for ACMS (further referred to as "TAAR") and on the ISO 25010 standard for evaluation of software product attributes. This approach can be summarized as follows:

- All potential solutions to be considered for ACMS are to be evaluated using a single and consistent set of explicit criteria
- The types of Non-Functional Requirements and evaluation criteria are to be based on recognizable standard or standards
- Although the Architectural Requirements section formulates a blueprint architecture for ACMS, it is presented at the logical level, in a vendor- and product-neutral way, without precluding solutions capable of satisfying stated requirements.

3.1 Requirements Definition

Each individual requirement must be well defined. IEEE Standard 610.12-1990 defines a requirement as:

- a) A condition or capability needed by a user to solve a problem or achieve an objective.
- b) A condition or capability that must be met or possessed by a system or system component to satisfy a contract, standard, specification, or other formally imposed document.
- c) A documented representation of a condition or capability as in definition (a) or (b).

In other words, the individual requirement shall be clear, concise, measurable, and testable. A well-defined set of requirements, per The Institute of Electrical and Electronics Engineers (IEEE) in Std. 1233-1998, will provide specific benefits, such as:

- A basis for agreement between the customer and the suppliers detailing the final expectations of the product
- Reduction in the development effort
- A basis for estimating resource requirements
- A baseline for subsequent verification and validation
- An easier transfer of the final product to users
- A basis for enhancement
- A method for tracing design elements back to requirements

Requirements documentation describes the business need for the project. There are three main levels of requirements represented in this document, they are:

- **Business:** includes business goals, objectives, constraints, blended requirements, and other statements that are important for vendors to consider and respond to narratively in their proposal, but are not testable. As is the case for this project, this type of requirement is often contained in documents like Feasibility Study Reports (FSR) and Implementation Advanced Planning Documents (IAPD).
- **Functional:** includes all the requirements deemed necessary to fully and adequately address the business requirements. These requirements must include all actions which must take place within the system to accept and process the inputs and to process and generate the outputs. This should include the specific requirements for business rules – all the necessary steps in a business process.
- **Non-Functional:** includes required level of service, system performance, security, availability, retention of data, and sizing considerations.

3.2 Approach to Determining Functional Requirements

The approach for ACMS pre-solicitation phase Functional Requirements elicitation, documentation, and the management thereof can be characterized as follows:

- Identify and review ACMS artifacts relevant for functional requirements elicitation (e.g. FSR, IAPD, SHS system documentation, process documentation, etc.).
- Based on the review of existing artifacts, extract relevant information to develop a draft of the Business Reference Model (BRM) (See section 2.2.1 – Document and Develop Business Reference Model, and Figure XX).

- Review the draft BRM with stakeholders and process owners in functional workgroup sessions in order to validate the model.
- Based on the BRM and information gathered during the aforementioned workgroup sessions, develop a draft of the ACMS Business Process Model (BPM) and process flow narrative, and review with stakeholders (See section 2.2.2 – Document and Develop Business Process Model, and Figure XX).
- Develop a Component Model based upon the BRM, BPM, and process flow narrative, and then conduct review sessions with stakeholders.
- Upon completion of the BRM, BPM, process flow narratives, Component Model, and in conjunction with the information collected during SME interviews and workgroup session(s), develop initial draft of representative detailed functional requirements in a manner that provides traceability to the BRM.
- Perform a final review of BRM, BPM, process flow narrative, Component Model, requirements documentation, and other associated requirements work products with stakeholders and subject matter experts for completeness and accuracy.
- Close the pre-solicitation phase for functional requirements elicitation and documentation, publish the ratified set of representative detailed functional requirements, and prepare them for inclusion into solicitation documentation.

3.2.1 Work Group Identification and Interview Sessions

Upon initiation of the project, CDSS and OSI project leadership provided the appropriate internal and external stakeholders, subject matter experts, and other participants the project team should include in process definition, and requirements discovery and elicitation activities for all business, functional and non-functional requirements. Subsequently, a series of work group sessions were scheduled and conducted accordingly. For a complete list of the stakeholders and subject matter experts that provided input during these sessions please see the document on the ACMS project SharePoint site entitled “ACMS Work Group Participants_8-5-2014.xls”.

3.2.2 Document and Develop Business Reference Model (BRM)

In order to construct a logical framework to identify and categorize ACMS business functions, ACMS project developed a Business Reference Model. This model is a high-level representation of the business functions, processes and services which define the SHD business. The BRM is designed to only provide those function and processes down to the “third-level” of detail. Business functions and processes defined in greater detail (below the first “three levels”) were not to be considered for inclusion into the BFM.

A Business Reference Model¹ (BRM) is a taxonomy that can be used to categorize the type of business functions, processes and services performed by the SHD. BRM allows business functions (or lower level business capabilities) and business services to be named or grouped consistently so that the state government functions are described using a functional view rather than an organizational view.

The following are the benefits of BRM¹:

- Provides the “what we do” view of the state enterprise at an aggregated level.
- Improves intra- and inter-agency communication and collaboration through a standardized way of identifying higher level government functions and services.
- Allows the operational costs and proposed project costs to be aggregated and mapped to the budget function classification codes.

Most notably for this project, the BRM provides additional benefits, such as:

- A communication tool to ensure project team members, stakeholders, subject matter experts, process owners, and vendors, share a common understanding of the functional requirements for the ACMS system
- A standardized evaluation tool that CDSS can effectively apply against *any* proposed system.

3.2.3 Develop Business Process Model (BPM)

A *business process* defines a series of activities that start with one or more events, manipulate a set of data, and end with one or more results. A Business Process Model represents the sequential flow and control logic of all of the enterprise’s key business processes. A Business Process Model describes what an organization or business does, including the events that initiate those processes (i.e., the business event) and the results of those processes. It is commonly visualized in the form of business process diagrams using a set of standard notations.

Business Process description or representation in a Business Process Model contains the following items¹:

- The external (e.g., to customers) and internal (e.g., to employees) business service provided through the business process and to whom this service is provided.
- The business event (e.g., telephone call, receipt of an application, initiation of online self-service, completion of a predecessor process, a schedule date) that triggers (starts) the business process.

¹ California Department of Technology, *California Enterprise Architecture Framework, Version 2.0*, August 1, 2013.

- Input information included in the business event and its representation (e.g., a paper form, an electronic message).
- The sequence of steps of the business process. These steps represent the key business activities and/or sub-processes of the business process. These steps are driven by business rules. A business rule is a specific, actionable, testable directive that is under the control of the business and supports a business policy⁴. Business rules describe the operations, definitions, and constraints that apply to an organization. Business rules can apply to people, processes, corporate behavior and computing systems in an organization, and are in place to help the organization achieve its goals.
- Output information (i.e., data in motion) contained in the results of the business process and its representation. It includes the information produced by the business process.
- Shared or stored information (i.e., data at rest) used by the business process steps. A business process may require additional information typically stored in the organization's data stores.
- Predecessors and successors.
- Failure points where a business process may stop before completion.
- The actors, their active roles and the activity conducted by each role.
- Constraints that may affect the performance of the business process.
- A grouping of related business processes into *business functions or lower level business capabilities*.

The ACMS project team developed the ACMS Business Process Model to:

- Ensure project team members, stakeholders, process owners, and prospective vendors share a common understanding of the business processes the ACMS must be designed to support;
- Identify the interactions (i.e. roles and responsibilities) which the ACMS is expected to support within the context of those business processes;
- Provide the future ACMS project team a tool that represents business objectives and therefore helpful for the identification of business rules, user roles, et cetera.

3.2.4 Develop a Business Capabilities Framework

The ACMS Framework is a design tool used to organize the set of functionality identified in the FSR, BRM, BPM, and Process Narrative Workflow during pre-solicitation phase of the ACMS project. The specific form of the Framework was chosen as the minimal logical functional set needed to provide complete coverage of the Appeals Case Management Process. Vendors are expected to address only the functional requirements described within the Framework. Proposals which deviate from the Framework are expected, and will not be penalized, provided the functional

requirements are met. The ACMS Framework is comprised of Functions and Components.

- **Components** consist of functionality which is potentially useful at any time during the life of an Appeals Case and/or from any user interface within the ACMS system. Examples include: Find Claimant, Create Appeal, et cetera.
- **Tasks** consist of functionality which is useful in the context of a sequence of events along a workflow. Components typically have requirements around data/state of the Appeal Case on entry from the preceding event, and specify the route/state of the Appeal Case on exit. Examples include: Assign Case, Update Case, Attach Notes/Files, et cetera.

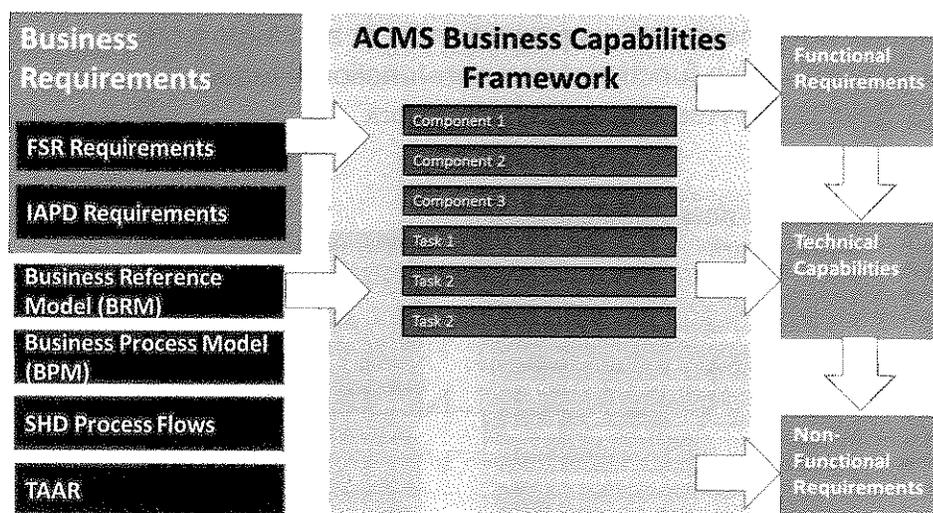


Figure 3-1 ACMS Business Capabilities Framework

The identification of the Components and Tasks that comprise the Business Capabilities Framework provided the foundation necessary to systematically document Representative detailed functional and non-functional requirements.

3.2.5 Representative Detailed Functional and Non-Functional Requirements

The scope for requirements documentation during the pre-solicitation phase was to document representative detailed requirements. Representative detailed requirements are best defined as requirements that provide vendors a clear understanding of the functional and non-functional requirements that prospective solutions must include, without being specific to the point of design or introducing unintended constraints. The more detailed level of specification will generally require a more precise response; therefore, increasing the probability of material deviations or restrict competition. As such, a complete set of detailed requirements was out-of-scope for this document. However, the project team did elicit more detailed requirements, in order to better understand the business processes, the workflows, functions and operational needs of

the SHD. This enabled the team to properly understand the different processes used by the various public assistance programs managed by the SHD. The ACMS project team considers the additional efforts expended to be a “head-start” for the Requirements Analysis and Design Phases of the ACMS development project. Therefore, the detailed requirements elicited during the pre-solicitation phase are stored on the ACMS project SharePoint site under the title “ACMS Workgroup Reqmts ~ Ver 1 1 ~ 08-27-14.xls”.

The important emphasis and consideration for solicitation purposes is for specifications to be reflections of true requirements regardless of the level of detail. As such, representative detailed functional and non-functional requirements were developed for inclusion into the RFP by referencing the existing project artifacts such as the FSR and IAPD, interviewing subject matter experts, and effectively decomposing requirements through the BRM, BPM, Process Narratives, and Business Capabilities Framework. For a graphical representation of how these various project artifacts and tools worked together to produce the representative functional and non-functional requirements see the figure below, “ACMS Solicitation Requirements Framework”.

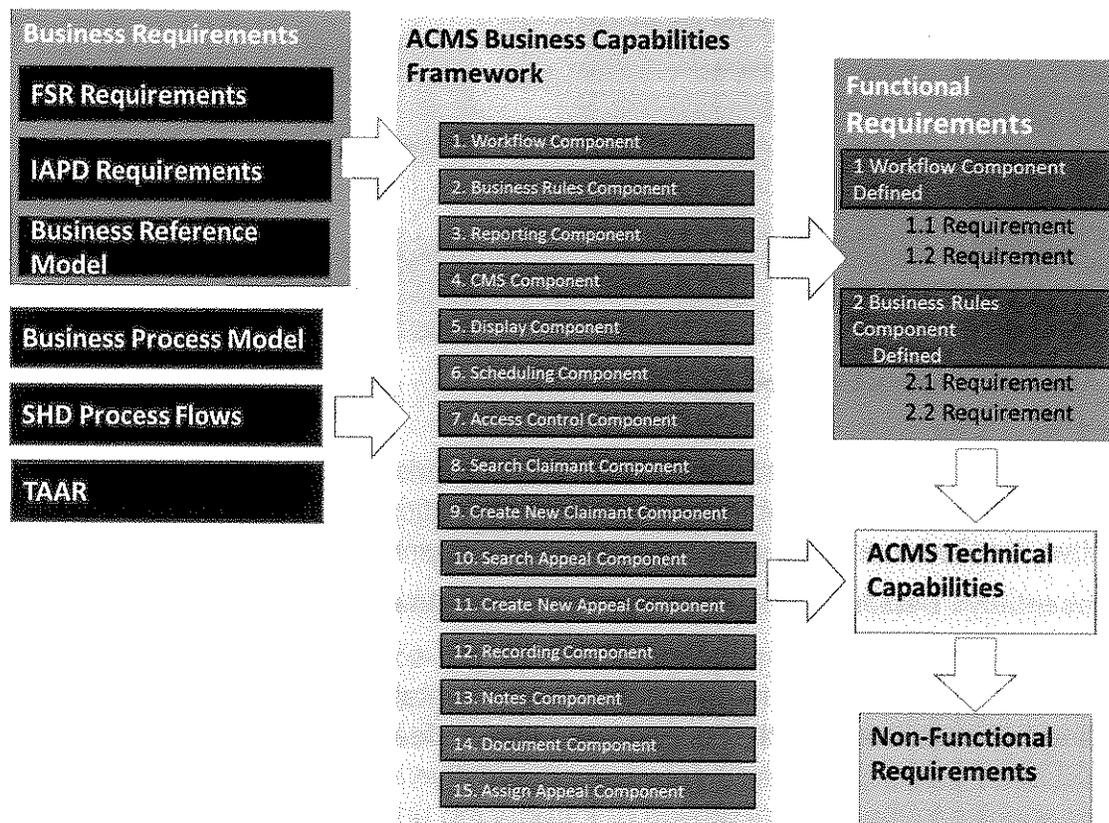


Figure 3-2 ACMS Solicitation Requirements Framework

3.3 Approach to Determining Non-Functional Requirements

The overall approach adopted for Non-Functional Requirements (NFRs) for ACMS can be summarized as follows:

- NFRs are traced to Business Goals and Functional Requirements as described in the document, in the Business Requirements and Functional Requirements sections
- Applicable regulatory constraints and standards are taken into consideration
- The outcomes of a Technical Approach Analysis performed for ACMS also inform the approach.

The approach for elicitation, documentation, and management of NFRs can be characterized as follows:

- Identify and review all ACMS technical/non-functional related artifacts
- Identify and validate basic technical requirements for ACMS, to include the number of concurrent users and expected growth over the next two years, geographical distribution of the users and expectations as to the response times for different categories of transactions; expectations as to availability of the system for interactive use and for batch processing.
- Apply attributes and sub-attributes as specified by the Product Quality Model (ISO/IEC 25010) to identify and document ACMS-specific requirements.
- Based on the ISO/IEC 25010 standard, outline a method for evaluating candidate technical solutions for ACMS. Please refer to the Appendix "ISO 25010 Technical Characteristics" for description of the standard taxonomy.
- Perform a final review of Non-Functional Requirements and corresponding documentation with stakeholders and subject matter experts for completeness and accuracy.
- Identify and describe constraints and potential trade-offs as affecting technical requirements for ACMS.
- Identify and document the Non-Functional requirements, including Usability Requirements and Technical Requirements.
- Upon completion of the Non-Functional requirements elicitation and documentation phase, publish the ratified set of Non-Functional requirements, and prepare Non-Functional requirements for inclusion into solicitation documentation.

3.3.1 Business Goals, Functional Requirements, and NFRs

Non-Functional Requirements for ACMS described in this document are based on a number of inputs:

- Business Requirements and Business Capabilities, discussed in section "".
- Functional Requirements, presented in section "ACMS Non-Functional Requirements"
- Architectural Blueprints, as provided by California Enterprise Architecture Framework (CEAF) 2.0, summarized in section "**Error! Reference source not found.**", and underlying standards, as identified in *Table 3-1 Architectural Federal or State Standards and Guidelines* below.

The following table shows Federal and State standards and guidelines that are applicable to ACMS.

Table 3-1 Architectural Federal or State Standards and Guidelines

Standard or Guideline	Area of Application	Description
CMS	Solicitation, EA	CMS Seven Conditions and Standards (MITS-11-01-v1.0) version 1.0 as of April 2011
FEAF	EA, Provisioning	Federal Enterprise Architecture Framework
MITA 3.0	EA, esp. Business Processes	Medicaid Information Technology Architecture (MITA), version 3.0 as of February 2012
CEAF 2.0	Enterprise Architecture	California Enterprise Architecture Framework, version 2.0 as of November, 2013.

The following figure shows traceability between ACMS Business Goals, Capabilities and Functional Requirements on one hand, and on the other hand Technical Capabilities and Non-Functional Requirements for ACMS.

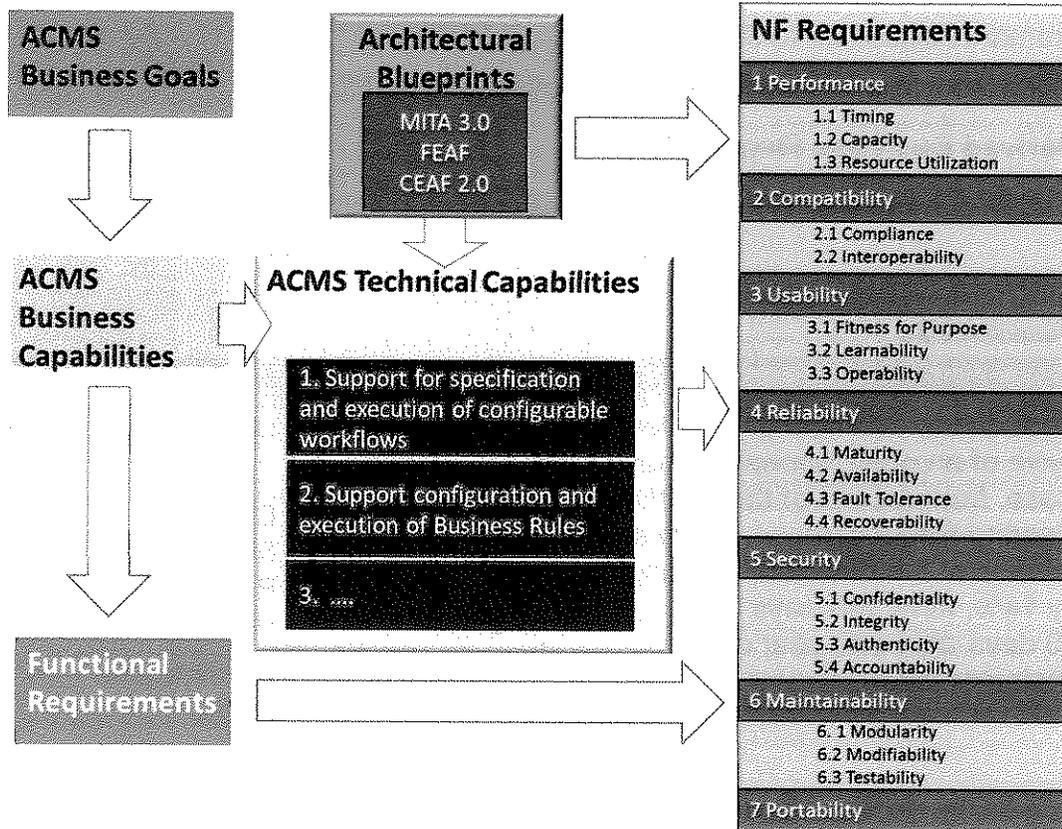


Figure 3-3 Traceability of Technical Capabilities and Non-Functional Requirements

4. ACMS BUSINESS REQUIREMENTS

This section describes Business Requirements for ACMS grouped as follows:

- Requirements traceable to FSR
- Requirements traceable to IAPD

The above requirements are described in the subsections that follow.

4.1 FSR-Derived Business Requirements

The following table summarizes Business Requirements that can be traced to the ACMS FSR.

Table 4-1 FSR Requirements

#	FSR Requirement	Discussion	Framework
FSR-1.0	Reduce the average life cycle of an open Appeals Case, from receipt of the Hearing Request to release of the decision, by 14%, from 105 days to 90 days after one year of implementation.	Desired time reduction may simply result from efficiency gains associated with use of single system. It is also likely that process changes may be needed to achieve this outcome. To support process changes in a timely way, the system will have to be configurable.	Unified System
			Configurable Business Process Management
			Configurable Data
			Configurable User Roles
FSR-2.0	Ensure 100% of notifications to the public are available in English and 12 other languages by first month of implementation.	Requires a highly configurable, template-based document generation system capable of supporting the full set of languages.	Template-based Notification System

FSR-3.0	30 days after implementation the three sub-systems/functions identified as Sound Recording App, Audio Transfer & Upload Log Database, and 100% of the functionality associated with them, will be available in a single consolidated process within the ACMS reducing processing time by 66% and freeing staff to perform other necessary duties.	The needs analysis reveals multiple points along the workflow that are likely to require use of this functionality. The flexibility needed is most likely to result from the ability to access a configurable Recording Function at any point within ACMS.	Configurable Business Process Management
			Recording Task
FSR-4.0	6 months after implementation, reduce the amount of time spent by SHD staff on a monthly basis specifically for the manual calculation and review of penalties due to untimely release of decisions from 65 hours to 20 hours, a decrease of 69%.	Because the workflow and time-to-task data needed to support the reporting must be collected, configurable data and workflow functionality is needed. Because the parameters around the penalties are likely to change, only a configurable reporting system is likely to capture this at deployment and in the future.	Configurable Business Process Management
			Configurable Case Data
			Configurable Reporting

FSR-5.0	6 months after implementation the three sub-systems/functions identified as Decision System, Decision Archive and Decision Release, and 100% of the functionality associated with them, will be available in single consolidated workflow process all within the ACMS reducing the average decision processing time by 33%.	Combination of existing processes into unified workflow generally comes with unanticipated consequences. To fully support both the pre-development anticipated need, and the need revealed post ACMS implementation, a configurable workflow system is needed. In addition, the high likelihood of role changes and the need to control Case and data visibility are likely to require configurable User Groups.	Configurable Business Process Management
			Configurable User Groups

4.2 IAPD-Derived Business Requirements

The following table summarizes Business Requirements that can be traced to the IAPD.

Table 4-2 IAPD Requirements

#	IAPD Requirement
1.1.1	Case Identification Information
	<p>The ACMS will require a number of enhancements to the case information tables to enable SHD staff to efficiently operate. SHD staff requires the ability to search for a case by means of different data sets all from a single screen. Enhancements and additional data fields required include, but are not limited to the following:</p> <ul style="list-style-type: none"> • Program type identification; CalWORKs, CalFresh, Medi-Cal, IHSS, Disability • Subcategories for program identification; medical, dental, Scopes, Z unit • Type of action being appealed; denial, discontinuance, reduction, overpayment • Treatment Authorization Request (TAR) # field • Notice of Action (NOA) # field • Related or companion case linking • Disability Determination Services Division (DDSD) Med-Pack tracking; requested, received, copied, returned to DDSD • AR relationship to claimant field • Interpreter needs
7.1.2	Calendaring of Hearings
	<p>SHD requires a complete revamp of the calendaring process. The limitations of the current SHS requires excessive manual processes and do not provide the flexibility needed to efficiently schedule appeal hearings. Enhancements and additional data fields that are required include the following capabilities:</p> <ul style="list-style-type: none"> • Link companion cases and have them automatically scheduled together • Create a special scheduling requests field that indicates what the special scheduling needs are, including time the case needs to be scheduled and why case is on hold • Schedule cases on an “as needed” basis as long as the hearing date occurs within 10 days

#	IAPD Requirement
	<ul style="list-style-type: none"> • Delete or edit a calendar that had been created. Cases previously scheduled on a deleted calendar should automatically be changed to "unscheduled" status • Access calendar and return calendaring functions from a single screen • Create and save calendar templates for future use • Open multiple calendars at once • Schedule all hearing types, phone, in person, remote, video, all in one calendar • Spread out the hearings by case worker so that the case worker assigned does not have overlapping hearings • Close or lock calendars on demand and not have to wait until the next day • Set priority for scheduling from un-calendared case listing • Display interpreter needs for cases and simultaneously schedule interpreters • Allow for mass updating of hearings in a calendar • Show calendar slot vacancies in each time slot • Provide real time updates to hearing calendars, for instance when cases are withdrawn or postponed, the hearing calendar is automatically updated and all counties are notified
7.1.3	Case Event Tracking
	<p>SHD requires that the ACMS have the ability to track all events associated with a case. In order to comply with HIPAA, we must be able to provide an audit trail with the following information:</p> <ul style="list-style-type: none"> • Who accessed a case file • The date and time the file was accessed • What information was available for viewing (this can be done by providing the access level of the individual accessing the file) • What information was added, deleted or changed • Screen Recording • Track time spent on each page/screen • Generate reports with the above information upon request by claimant

7.1.4	Case Narrative Screen
	<p>The following enhancements to case narratives are required:</p> <ul style="list-style-type: none"> • Autocorrect/spell check function • Ability for the creator of a narrative to edit or append • The number of characters for each narrative needs to be expanded to allow for greater detailed notes • The number of narratives that can be added to a case must not be limited
7.1.5	Case Document Archive
	<p>The ACMS will need to allow access to full case file data for 48 months after the release date of the decision. In the current environment, access to the full case data is not retained on back up media beyond 90 days after the decision release date due to constraints of tape storage. This has proven to be inadequate as many claimants will request information and details for past cases beyond the 90 day window.</p>
7.1.6	Public Intake / Access Integration
	<p>The ACMS will address a number of enhancements needed to improve the public intake process.</p> <p>In the current environment the online Appeals Hearing Request form that is available to the public cannot link and feed directly to the mainframe application, HWDC. The process requires that a hard copy of the information collected through the online form be printed out and then manually entered into the State Hearings System by SHD Customer Service support staff. The support staff must then scan the hard-copy print out into a PDF and forward the document to the County that issued the Notice of Action on which an appeal is being requested. Additionally, in the current environment the public does not have access to look up their appeal case via secure internet connection and check the status of the case, update contact information, upload documents relevant to the hearing. This not only increases the risk of manual errors, but causes a delay in the appeals hearing process. Enhancements and additional data fields that are required and will be addressed in ACMS include the following:</p> <ul style="list-style-type: none"> • Direct interface to the ACMS intake process for the claimants, Authorized Representatives and county workers • Confirmation that a new case has been created at the end of the intake process • Acknowledgement of the new case number and details sent to the claimant, Authorized Representatives and the county
7.1.7	Notification Letters
	<p>SHD has currently identified over 130 notification letters currently in use. These letters do not meet current business requirements of being available</p>

	<p>in all languages required by the Be Vu et al v. Mitchell and Bolton lawsuit and Federal Regulations 7 CFR 272.4 (b). Further, it has been identified that these letters do not contain sufficient information regarding the rights of the claimants. Current system limitations prohibit CDSS from being able to modify letter content to meet current requirements to satisfy legislation and stakeholder requests.</p>
7.1.8	<p>Letter Templates</p>
	<p>SHD requires the ability to create and edit templates to over 130 letters used in the appeals process. Currently, many of the letters within the SHS are incorrect due to changes in regulations and the inability for edits, updates and changes to the current system.</p>
7.1.9	<p>ALJ Dashboard</p>
	<p>The creation of a new function will allow the Administrative Law Judges and Presiding Law Judges to review cases that they have been assigned. Some of the functionality of this dashboard will include:</p> <ul style="list-style-type: none"> • Direct access to the list of cases assigned • Ability to: <ul style="list-style-type: none"> ○ Review the status of their cases ○ Upload documents to their cases ○ Directly retrieve documents from case files prior to, during and after a hearing ○ Make notes to the electronic case file during a hearing • Review and comment on pending case file lists
7.1.10	<p>County User Dashboard</p>
	<p>The creation of a new user interface where authorized County staff with access and appropriate security levels will be able to log in to the ACMS. Some of the functionality of this dashboard will be the ability to:</p> <ul style="list-style-type: none"> • View list of cases scheduled for upcoming hearing dates • View list of cases not scheduled for hearing • Upload documents to cases files, such as Statement of Positions • Download documents for review, such as items of evidence and decisions • Withdraw hearings and notify SHD, Claimant and ARs

7.1.1 1	Timeline Triggers
	SHD requires the ability to make changes to the timeline triggers used in appeals hearing process. Currently, many of the penalty calculations within the SHS are incorrect due to changes in regulations and the inability for updates to the current SHS.
7.1.1 2	Reporting
	<p>Following is a partial list of reports currently available:</p> <ol style="list-style-type: none"> 1. Monthly Issue Code Report 2. Monthly Non-Adopted Decision (NAD) Timeliness Report 3. Scheduled Cases Report 4. Monthly Cases Heard by Regions and ALJs 5. Monthly Decision Timeliness Report 6. Monthly Written Decision Timeliness 7. Monthly Granted Decision Timeliness 8. Monthly Outcomes of Decisions Released 9. King and Ball Court Reports 10. Monthly 30 Plus Days Over Release Date Cases Report 11. Monthly Decisions Released by ALJ 12. Monthly Aid Category Filings by Counties 13. Monthly DHB Filings by Regions & By Counties 14. Monthly 50 Plus Days Over Adjusted Filing Date and Unscheduled Cases Report 15. Quarterly Totals by County 16. Quarterly Activity Report 17. Quarterly Medi-Cal Activity Report <p>Examples of additional reports that have been identified as needed include:</p> <ul style="list-style-type: none"> • Reports providing the number of cases with untimely decisions on a monthly basis with details as to days late, ALJ assigned to case, and decision rendered • Reports providing a breakdown of penalties by program with case details • Reports providing a breakdown of case volume broken out by Program and County <p>Additional reporting needs will be identified through development. Further, the system must be scalable with the ability for SHD to add additional reporting requirements as needed to ensure future flexibility.</p>

<p>7.1.1 3</p>	<p>Security and Confidentiality</p>
	<p>Due to HIPAA requirements SHD requires that specific role-based security levels be put in place tied to user types. Case data must be limited to “need to know” basis defined by HIPAA.</p> <ul style="list-style-type: none"> • The new system will limit cases viewed or editable to only those users "on a need to know" basis. HIPAA requires only need to know access. SHD has identified 24 specific User Types and has defined the access level that has been identified as being required for each of these user types. • The process ID must be specific to the person logged into the system. Eliminate the current environment where any processor code is entered in order to process data inside the system after one is logged in. This allows the misuse of any processor code by any individual. • Event tracking will provide an audit trail for all actions processed for a case. This will record date, time, processor ID and action every time a case is accessed. • The system needs to limit display of a Social Security Number (SSN) to the last four digits. At no time will the full SSN be visible to a person accessing a case file. • Personal health information / data access will be restricted to individuals based on their role / user type and on a need-to-know.
<p>7.1.1 4</p>	<p>Authorized Representative Management / Dashboard</p>
	<p>Authorized Representatives (ARs) are divided into two groups; professional and non-professional ARs. Non-professional ARs consist of family or community members that are assisting the claimant at the claimant’s request. The non-professional AR will generally only be associated with a single case or linked companion cases.</p> <p>Professional ARs are those agencies that represent the claimants through professional legal aid organizations and others. A series of enhancements have been identified as being critical in the development of the new system.</p> <ul style="list-style-type: none"> • The new system will provide for the creation of a new user interface where Professional Authorized Representatives that have been granted access and appropriate security levels will be able to log in to the ACMS. Some of the functionality of this dashboard will include the ability to Log in and see a listing of all cases and review cases status all cases for which they are listed • Upload documents for attachment to the case file • Download documents, such as State of Position (SOP), from the case file that they have been granted access to through their AR

	<p>authorization</p> <ul style="list-style-type: none"> • Request expedited hearings, postponements and withdrawals • Add additional contact information fields and types; email, multiple phone numbers and mailing addresses <p>Security levels for all parties accessing the new ACMS will be at role-based, security levels where only need-to-know data will be available to a predefined user classification. Authorized Reps will only be able to view cases they are currently the active AR for and will only be able to view HIPAA compliant data involving the specific case.</p>
<p>7.1.1 5</p>	<p>Public Resource</p>
	<p>On the Public Intake menu links to information pertinent to the claimants and the State Hearing processes are critically necessary. Some of these links will be:</p> <ul style="list-style-type: none"> • Hearing Terms • Hearing Sites • Contact SHD • Before Your Hearing • At Your Hearing • After Your Hearing
<p>7.1.1 6</p>	<p>Management Monitoring, Tracking and Performance Measurement</p>
	<p>SHD requires the development of a Management Reporting module that will provide SHD with the capability to timely and accurately provide detailed reporting to Department, Agency, other state and federal departments. This module will allow SHD management to monitor the production and flow of work processes for the division to ensure timelines and mitigate penalties; and allow for accurate and timely reporting of case management data and of SHD performance metrics to all stakeholders, including but not limited to:</p> <ul style="list-style-type: none"> • Caseload Intake by county and program type • Caseload calendared and to be calendared • Caseload hearings held by county and program type • Caseload decisions issued by county and program type • Caseload timeliness reporting • Pending Caseload (cases heard awaiting decision) • Unscheduled Risk Cases (cases at risk of being untimely and receiving penalties) • Average Cases Heard

	<ul style="list-style-type: none"> • Average Cases Adopted • Total Number of intake, cases heard and cases adopted • Workforce and hearing capacity • Metrics on Case Intake, Case Outcomes, Cases Heard, Cases Withdrawn, Decisions Adopted • Metrics on Re-hearings • Penalties Paid for Late Decisions
7.1.1 7	Ad Hoc Report Generation
	<p>In addition to the Management Reporting module and prescribed scheduled reports, SHD requires the development of a more complete Ad Hoc reporting system. Following is a list of requirements for the Ad Hoc reporting module:</p> <ul style="list-style-type: none"> • Create, modify and save report templates from a single screen • Design a report with the criteria being any of the data fields used in the ACMS • Ad Hoc query reporting must be available for export in various formats; Excel, Word, Crystal Report, PDF, Text (tab delimited)
7.1.1 8	Case/Document Retention
	<p>SHD requires that electronic case files be maintained in the ACMS for 48 months after the release date of the decision. All documents associated with the case that have been uploaded and linked to the case file need to be accessible to users based on the user's security authorization. The following is a list of some of the documents that SHD has identified as likely to be attached to case files:</p> <ul style="list-style-type: none"> • Statement of Position • Decisions • Hearing Requests • Authorized Representative authorizations • Evidentiary documents • Med-pack files (medical information provided by Disability Determination Services Division)

7.1.1 9	ALJ Resource Library
	<p>Linkages are required for often used resources such as:</p> <ul style="list-style-type: none"> • Regulations used for hearings • Procedural documents • Decision templates <p>These links should remain accessible to the ALJ on their dashboards.</p>
7.1.2 0	Interactive Voice Response Capabilities
	<p>IVR capabilities are consistent with the federal "No Wrong Door" ACA policy. The following is an initial list of functions already identified that will allow:</p> <ul style="list-style-type: none"> • Callers to check on the status of their case • SHD staff to run an automated calling queue to claimants prior to a case hearing • SHD to attach recordings of phone and remote hearings directly to a case file • SHD staff, claimants, Authorized Representatives and County staff to update case information, requesting postponements and requesting withdrawals
7.1.2 1	Home Page Links
	<p>ACMS will require links to the following sites and information that is currently available through the CDSS SHD internet page:</p> <ul style="list-style-type: none"> • Paraphrased Regulations • SHD Training Bureau • Authorized Representative form • Hearing General Information • Contact SHD • Hearing Locations • Publications • Forms
7.1.2 2	Interfaces
	<p>ACMS will require interface capability for the exchange of data between Health Care Insurance Exchanges and Social Service Program determination systems including:</p>

	<ul style="list-style-type: none"> • SAWS Consortia • SURGE – DHCS (system maintained at DHCS with information that SHD uses to review cases, determine case classifications and validity of appeal requests). • CalHEERS • CHHSA <p>From a technology standpoint, the ACMS will be able to function (as a Case Management System) without the planned interfaces. Although the interfaces provide optimization, they are not necessary for the operability of the system.</p>
<p>7.1.2 3</p>	<p>Client Case Management Account</p>
	<p>ACMS will require electronic case management capabilities for clients seeking fair hearings. The Client Case Management Account will be managed by State Hearings Division staff. This web-based system will allow claimants the ability to:</p> <ul style="list-style-type: none"> • Log in securely • Request a fair hearing • Request special accommodations for hearing • Upload and download documents such as items of evidence and Statements of Position for the hearing • Access case specific documents submitted by counties and the state and received via interface with SAWS, CalHEERS, and DHCS' SURGE system • Submit requests for hearing changes • Check the status of a case online • Access laws, regulations and policies relevant to their case <p>Providing claimants online, real-time access to their case information will increase case timeliness and mitigate penalties paid for late hearing decisions by:</p> <ul style="list-style-type: none"> • Fewer hearing delays • Significant reduction in staff time responding to calls from claimants for case status information. • Better informed claimants which increase the likelihood for prehearing resolution of disputes without need for hearing • Better prepared claimants which allows for more efficient use of the hearing to focus on issues in dispute.

5. ACMS FUNCTIONAL REQUIREMENTS

This section discusses Functional Requirements for ACMS by identifying user groups (actors or roles) for ACMS.

5.1 User Groups

The ACMS is intended as a centralized system for use by all the individuals who touch an Appeal Case across its appeal lifetime. The set of ACMS roles described below are representative of the range which will need to be configured at system release, and should not be considered to be comprehensive. The following table describes the user groups identified for ACMS.

Table 5-1 User Groups in ACMS

Group	Label	Description
Administration Users	AU	This group includes all Users who are tasked with maintaining ACMS functionality within the configuration.
Administrative Law Judge Users	AJ	This group includes all Judges who review, hear and make decisions on claims (cases).
Authorized Representative Users	AR	This group includes all people who have legal authorization to represent the claimant; this can be a family member, relative, or an attorney.
Claimant Users	CL	This group includes all individuals appealing the decision of a county or State Agency to deny or reduce benefits.
Configuration Users	CU	This group includes all Users who have authority to modify the ACMS system configuration.
County Appeals Representative Users	CR	This group includes all County Staff assigned to validate and manage the Appeal. Note: They are somewhat similar to the attorney for the county.
Customer Service Users	CS	This group includes all SHD staff members who input the Appeal and validate the application's information, using State rules for filing a valid appeal.
Interpreter Vendor Users	IV	This group includes vendors who provide interpreters for use in the Appeals process.
Scheduler Users	SH	This group includes all SHD and county Staff members responsible for managing the scheduling of all cases (location, modality, special needs, recording devices, etc.).
Supervisor Users	SU	This group includes all SHD Staff responsible for supervision of other SHD staff.
Support Staff	SS	This group includes all SHD Staff responsible for

Group	Label	Description
Users		reviewing and processing new Appeals. The review includes checks for completeness and jurisdiction (bifurcation and administrative dismissal). They build and ensure the case file is ready for the ALJ to use at the hearing. Note: They also coordinate new appeals with the CAR, AR and the applicable Responsible Agency, as needed.
Appeals Representatives	AR	DHCS, Covered California and SHD program appeals review staff. Acting on behalf of the Director of their respective department to review proposed decisions.

5.2 Functional Requirements by Component

Functional Requirements for ACMS have been grouped by functional component or task, as follows:

1. Requirements for Business Process Management Component
2. Requirements for Business Rules Component
3. Requirements for Claimant Search Component
4. Requirements for New Claimant Component
5. Requirements for Appeal Case Search Component
6. Requirements for New Appeal Case Component
7. Requirements for Route Case Task
8. Requirements for Assign Case Task
9. Requirements for Update Case Task
10. Requirements for Scheduling Component
11. Requirements for Schedule Case Task
12. Requirements for Notification Template Component
13. Requirements for Notification Task
14. Requirements for Document Template Component
15. Requirements for Add Documents Task
16. Requirements for Case Notes Component
17. Requirements for Add Notes Task
18. Requirements for Case Recording Component
19. Requirements for Add Recording Task
20. Requirements for Content and Navigation Component
21. Requirements for Voice Navigation Component
22. Requirements for Reporting Component
23. Requirements for Help and Support Component

- 24. Requirements for Security and Access Control Component
- 25. Requirements for Search Component of Digital Content

The subsections that follow provide description of requirements for respective areas.

5.2.1 Business Process Management Component Requirements

The Business Process Management component provides an organizing container for the various Task components used throughout the lifetime of an Appeal Case. The Business Process Management container supports several important functions within ACMS:

- It supports visualization of Task sequence to ease management of Tasks.
- It supports duplication of existing Task sequences as a means of easily creating a new, customized, workflows.
- It supports creation of reports around workflow, such as Task-to-Task processing times.

Table 5-2 Business Process Management Component Requirements

#	Requirement	Users
F.1.1	The ACMS shall support Configuration Users in the creation of new Workflows with unique names.	CU
F.1.2	The ACMS shall support Configuration Users in managing Workflows by providing a Business Process Management Display UI which includes: <ul style="list-style-type: none"> • All configured Workflows in the ACMS system • The status of each Workflow (inactive, active) • Number of Appeal Cases currently associated with a given Workflow. • Visual representation of the relationship of connected Workflows. • Tools for sorting and filtering displayed Workflows. 	CU
F.1.3	All displayed items within the Business Process Management display UI shall be linked to detail UIs for the linked items.	CU
F.1.4	The ACMS shall, in the default Business Process Management display UI, hide all inactive Workflows.	CU
F.1.5	The ACMS shall support Configuration Users in the addition of Components to Workflows. Any added Component shall have a defined position within the sequence of Components associated with the Workflow.	CU

F.1.6	<p>The ACMS shall support Configuration Users in managing Workflow-associated Components by providing a Single Workflow Display UI which includes:</p> <ul style="list-style-type: none"> • The Single Workflow configured name • The associated Components, by name, in their execution sequence. • Configuration status of each Component. • Number of Appeal Cases currently associated with a given Component. 	CU
F.1.7	All displayed items within the Workflow display UI shall be linked to detail/configuration UIs.	CU
F.1.8	The ACMS shall support the Configuration User in management of Workflows by including, within the Workflow display UI, a “Clone Workflow” tool, capable of producing a complete copy of the Workflow and all associated Components. The copy shall be created in an “Inactive” state.	CU
F.1.9	The ACMS shall support Configuration Users in the inactivation/reactivation of existing Workflows which have no active Appeal Cases associated with them.	CU
F.1.10	The ACMS shall support Configuration Users in the removal of Components from a Workflow, provided that there are no active Appeal Cases associated with the Component in question.	CU
F.1.11	<p>The ACMS shall support Configuration Users by providing a pre-configured, default, Workflow named “New Case Workflow” which cannot be set inactive and is available for use as the basis for the configuration of additional workflows, which will initially include:</p> <p>Dismissal Bifurcation Rehearing and others needed to replicate SHD BPM.</p>	CU
F.1.12	<p>The ACMS Business Process Management functionality shall be experienced by non-CU User types in two ways:</p> <ul style="list-style-type: none"> • Through direct experience of Tasks assigned to them. • Through Reporting based on Workflow Tasks and Processes. 	ALL

5.2.2 Business Rules Component Requirements

The Business Rules Component provides for the creation, maintenance and execution of Business Rules used across the ACMS system. Important functions supported include:

- Visualization of complete set of Business Rules used in ACMS.
- Creation of Business Rules.
- Cloning of existing rules to allow development of derivative Rules.
- Inactivation of Business Rules.
- Identification of dependencies present in currently configured Business Rules.
- Documentation of the business need and goals associated with individual Rules.
- Documentation of Unit Functionality Tests associated with the Rule.
- Detailed logging of Rule modification and use.

Table 5-3 Business Rules Component Requirements

#	Requirement	Users
F.2.1	The ACMS shall support Configuration Users by providing an environment for creation, modification, and general management of Business Rules.	CU
F.2.2	The ACMS shall support Configuration Users by providing a Business Rules Management UI which supports visualization of the full set of configured Business Rules.	CU
F.2.3	The ACMS shall support Configuration Users by providing drill-down from listed Business Rules within the Business Rules Management UI to a UI used for single-Rule management.	CU
F.2.4	The ACMS shall support Configuration Users in the creation of Business Rules using pre-programmed Objects, Actions, and Events as building blocks.	CU
F.2.5	System Object attributes available for use by Configuration Users in ACMS Business Rule Conditions shall include, but are not limited to, the following: <ul style="list-style-type: none"> • Claimant User attributes • Appeal Case attributes • Attributes of configured Tasks • Attributes of configured Functions • Hearing attributes 	CU

F.2.6	<p>System Events available for use by Configuration Users in ACMS Business Rules shall include, but are not limited to, the following:</p> <ul style="list-style-type: none"> • Listener-based Events tied to ACMS Claimant or Appeal Case. Example: Update to the Status attribute of an Appeal Case. • Trigger-based Events tied to all Tasks and Functions within ACMS. Example: Completion of an Update Case Task. 	CU
F.2.7	<p>System Actions available for use by Configuration Users in ACMS Business Rules shall include, but are not limited to, the following:</p> <ul style="list-style-type: none"> • Modification of any Claimant User attribute. • Modification of any Appeal Case attribute. • Modification/completion of any configured Task. Example: Case Update Task is timed out based on Business Rule. • Calculation of some value. Example: Determination of due dates for a newly created Appeal Case. 	CU
F.2.8	<p>The ACMS shall support Configuration Users in cloning existing Business Rules as the basis for new rules.</p>	CU
F.2.9	<p>The ACMS shall support Configuration Users by requiring that all saved Business Rules have unique names.</p>	CU
F.2.1 0	<p>The ACMS shall support Configuration Users in creation of a Business Rules management structure, i.e. "folder and subfolder", "tree and branch", etc. as a means of organizing the set of Business Rules.</p>	CU
F.2.1 1	<p>The ACMS shall support Configuration Users by providing a variety of attributes in association with created Business Rules.</p> <p>These attributes to include, but are not limited to:</p> <ul style="list-style-type: none"> • Rule name • Rule status • Rule summary narrative • Rule goals narrative • Rule validation testing plan • Rule creation date • Detailed logging of Rule modification to include: <ul style="list-style-type: none"> ○ User name ○ Item modified 	CU

	<ul style="list-style-type: none"> o Modification made o Modification date/timestamp 	
F.2.1 2	The ACMS shall support Configuration Users in configuration of Business Rules via the general Event/Condition/Action model.	CU
F.2.1 3	The ACMS shall support Configuration Users in Business Rules modification and creation via a release process that includes regression and unit testing to ensure system stability.	CU
F.2.1 4	The ACMS shall support Configuration Users in Business Rules management by preventing creation of functionally identical Rules.	
F.2.1 5	The ACMS shall support Configuration Users in Business Rules management by supporting the deployment of any Rule in conjunction with any ACMS Component or Task designed to use Business Rules, as well as along any Workflow.	
F.2.1 6	The ACMS shall support Configuration Users in Business Rules creation by supporting the concatenation of Business Rules.	
F.2.1 7	The ACMS shall support Configuration Users in using standard ACMS Security and Access-Control to manage Business Rules Component management tools availability.	CU

5.2.3 Claimant Search Component Requirements

The Claimant Search Function serves to support Users in identifying Claimant accounts within the ACMS system. To serve the wide range of User need, this Function must be configurable by User Group along the following dimensions:

- Availability of function within ACMS.
- Provision of customized Search and Result UI.
- Definition of Data to be used as input to Search.
- Definition of validation rules associated with input data.
- Definition of result data displayed in response to search.
- Linking of data points within results set.

Table 5-4 Claimant Search Component Requirements

#	Requirement	Users
F.3.1	The ACMS shall support Configuration Users in designation of which User Groups will have a "Claimant Search" tool available within their System UI.	CU
F.3.2	The ACMS shall support Configuration Users in the designation and design of a UI to be used in Claimant Search.	CU

#	Requirement	Users
F.3.3	The ACMS shall support Configuration Users in creation of multiple Claimant Search UIs, as well as designation of availability to specific User Groups.	CU
F.3.4	The ACMS shall support Configuration Users in designation of data fields used for Claimant Search.	CU
F.3.5	The ACMS shall support Configuration Users in designation of system validation rules to be applied to data submitted within Claimant Search.	CU
F.3.6	The ACMS shall support Configuration Users in designation of UI and search results format displayed in response to submission of Claimant Search.	CU
F.3.7	<p>The ACMS shall support all Users within Claimant Search privileged User Groups in searching for Claimant Users via configured Claimant Search UIs, Validation, and Result Display functionality for their particular User Group.</p> <p>Example: Claimant User accesses ACMS via web portal, chooses to create a new account, initial data entry by Claimant User searches for existing Claimant Account with matching data. When no match is found, Claimant User is seamlessly passed through New Claimant creation process.</p> <p>Example: Staff User uses advanced Claimant Search, entering partial Claimant Information with Boolean modifiers. ACMS returns partial matches sorted by degree of match.</p>	ALL

5.2.4 New Claimant Component Requirements

The New Claimant Component serves to support Users, including Claimant, Authorized Representative, and Staff-type Users in adding a new Claimant account to the ACMS system. To serve the range of User need within the system, this function must be configurable by User Group along the following dimensions:

- Availability of New Claimant function within UI.
- Input data needed for New Claimant creation.
- Validation rules applied to data entered in New Claimant creation.
- Validation messages displayed in response to data entry.
- Design of UI containing New Claimant function.

Table 5-5 New Claimant Component Requirements

#	Requirement	Users
F.4.1	The ACMS shall support Configuration Users in designation of which User Groups will have a "New Claimant" link available within their System UI.	CU
F.4.2	The ACMS shall support Configuration Users in the design of multiple, customized, New Claimant UIs, for availability to specific User Groups.	CU
F.4.3	The ACMS shall support Configuration User in management of Claimant User by provision of a default Data Model to include standard demographic fields, which may include, but are not limited to: <ul style="list-style-type: none"> • First Name • Last Name • SSN • Address • DOB 	CU
F.4.4	The ACMS shall support Configuration Users in expansion of the Claimant User Data Object by the addition of attributes.	CU
F.4.5	The ACMS shall support Configuration Users in designation of the data fields used in New Claimant creation on a per-User Group basis.	CU
F.4.6	The ACMS shall support Configuration Users in designation of validation rules for data submitted within New Claimant creation on a per-User Group basis.	CU
F.4.7	The ACMS shall support Configuration Users in item-by-item designation of system responses to missing/invalid required data within New Claimant creation.	CU
F.4.8	The ACMS shall support Configuration Users in designation of UI and data displayed in response to submission of New Claimant.	CU
F.4.9	The ACMS shall support Claimant Users and Authorized Representative Users in the creation of New Claimant accounts.	CL, AR
F.4.10	The ACMS shall support CL and AR Users in avoiding the creation of duplicate Claimant accounts in the New Claimant process.	CL, AR
F.4.11	The ACMS shall support Staff Users in the creation of New Claimant accounts	Staff
F.4.12	The ACMS shall support SU in identification of existing Claimant accounts, using Claimant Search functionality, within the context of the New Claimant or New Appeal process.	Staff

5.2.5 Appeal Case Search Component Requirements

The Appeal Case Search function serves to support Users in identifying Appeal Cases within the ACMS. To serve the range of User need, this function must be configurable, by User Group, along the following dimensions:

- Availability of function within UI.
- Availability of customized UIs.
- Definition of data used as input to Search.
- Validation rules associated with input data.
- Result data displayed in response to search.
- Linking of data within result UI.

Table 5-6 Appeal Case Search Component Requirements

#	Requirement	Users
F.5.1	The ACMS shall support Configuration Users in designation of which User Groups will have an "Appeal Case Search" tool available within their ACMS Dashboard UI.	CU
F.5.2	The ACMS shall support Configuration Users in the design of a UI to be used in Appeal Case Search.	CU
F.5.3	The ACMS shall support Configuration Users in creation of multiple Appeal Case Search UIs, and the designation of availability to specific User Groups.	CU
F.5.4	The ACMS shall support Configuration Users in designation of data fields used for Appeal Case Search.	CU
F.5.5	The ACMS shall support Configuration Users in designation of system validation rules to be applied to data submitted within Appeal Case Search.	CU
F.5.6	The ACMS shall support Configuration Users in designation of UI and search results format displayed in response to submission of Appeal Case Search.	CU
F.5.7	The ACMS shall support all Users within Appeal Search privileged User Groups in searching for Appeal Cases via configured Appeal Search UIs, Validation, and Result Display functionality for their particular User Group. Example: Claimant User accesses ACMS via web portal, logging into their Claimant Account. CL then chooses to create a new Appeal Case, initial data entry by Claimant User background searches for existing Appeal Case with matching data. When no match is found, Claimant User is seamlessly passed through New Appeal Case creation process. Example: Staff User uses advanced Appeal Case Search, entering partial Case Information with Boolean modifiers. ACMS returns partial matches sorted by degree of match.	ALL

5.2.6 New Appeal Case Component Requirements

The New Appeal Case Component serves to support Users, including Claimant, Authorized Representative, and Staff-type Users in adding a new Appeal Cases to the ACMS system. To serve the range of User need within the system, this function must be configurable by User Group along the following dimensions:

- Availability of New Appeal Case function within UI.
- Input data needed for New Appeal Case creation.
- Validation rules applied to data entered in New Appeal Case creation.
- Validation messages displayed in response to data entry.
- Design of UI containing New Appeal Case function.

Table 5-7 New Appeal Case Component Requirements

#	Requirement	Users
F.6.1	The ACMS shall support Configuration Users in designation of which User Groups will have New Appeal Case functionality available within their ACMS UI.	CU
F.6.2	The ACMS shall support Configuration Users in the design of multiple, customized, New Appeal Case UIs, for availability to specific User Groups.	CU
F.6.3	The ACMS shall support Configuration User in management of Appeal Case by provision of a default Data Model to include fields, which may include, but are not limited to: <ul style="list-style-type: none"> • Claim Type • Program Names • Responsible Agency • Dates of denial • Etc. 	CU
F.6.4	The ACMS shall support Configuration Users in expansion of the Appeal Case Data Object by the addition of attributes.	CU
F.6.5	The ACMS shall support Configuration Users in designation of the data fields used in Appeal Case creation on a per-User Group basis.	CU
F.6.6	The ACMS shall support Configuration Users in designation of validation rules for data submitted within Appeal Case creation on a per-User/Group basis.	CU
F.6.7	The ACMS shall support Configuration Users in item-by-item designation of system responses to missing/invalid required data within Appeal Case creation.	CU

F.6.8	The ACMS shall support Configuration Users in designation of UI and data displayed in response to submission of New Appeal Case.	CU
F.6.9	The ACMS shall support Claimant Users and Authorized Representative Users in the creation of New Appeal Cases.	CL, AR
F.6.10	The ACMS shall support CL and AR Users in avoiding the creation of duplicate Appeal Cases in the New Appeal Case process.	CL, AR
F.6.11	The ACMS shall support Staff Users in the creation of New Appeal Cases	Staff
F.6.12	The ACMS shall support SU in identification of existing Appeal Cases, using Appeal Case Search functionality, within the context of the New Appeal Case process.	Staff

5.2.7 Route Case Task Requirements

The ACMS Route Case Task is encountered by a Case as it moves along a Workflow. When encountered, the Task requires that a User manually route the Case to another Workflow.

This functionality is also available as a purely automated process, by placing a Business Rule configured to route cases along a Workflow.

Table 5-8 Route Case Task Requirements

#	Requirement	Users
F.7.1	The ACMS shall support Configuration Users in the deployment of Route Case Tasks along any configured Workflow within ACMS.	CU
F.7.2	The ACMS shall support Configuration Users in the configuration of Route Case Tasks placed along Workflows within ACMS.	CU
F.7.3	The ACMS shall support Configuration Users in the configuration of Route Case Tasks by indication of one or more destination Workflow for the Task.	CU
F.7.4	The ACMS shall support Configuration Users in the configuration of Route Case Tasks by association of Business Rule conditions with desired routing destinations for the Task.	CU
F.7.5	The ACMS shall support User management of Appeal Cases by using Route Case Tasks to determine movement of Appeal Cases between Workflows. Example: Appeal Case moves along Workflow A and encounters Route Case Task 1. The Customer Service User assigned to the Case, sees that the Case is awaiting completion of Route Case Task and enters the Case in ACMS. Within Case, CS notes that the Case must be scheduled and routes case to Scheduling workflow, satisfying Task conditions and exiting Task.	Staff

5.2.8 Assign Case Task Requirements

The ACMS Assign Case Task is encountered by a Case as it moves along a Workflow. When encountered, the Task requires that a User manually assign the Case to another User or User Group.

This functionality is also available as a purely automated process, by placing a Business Rule configured to assign cases along a Workflow.

Table 5-9 Assign Case Task Requirements

#	Requirement	Users
F.8.1	The ACMS shall support Configuration Users in the deployment of Assign Case Tasks along any configured Workflow within ACMS.	CU
F.8.2	The ACMS shall support Configuration Users in the configuration of Assign Case Tasks placed along Workflows within ACMS.	CU
F.8.3	The ACMS shall support Configuration Users in the configuration of Assign Case Tasks by designating which User(s) and User Groups can be used to satisfy Task conditions.	CU
F.8.4	The ACMS shall support User management of Appeal Cases by using Assign Case Tasks to determine Appeal Cases assignments. Example: Appeal Case moves along Workflow A and encounters Assign Case Task 1. The Customer Service User assigned to the Case, sees that the Case is awaiting completion of Assign Case Task and enters Case. Within Case, CS reviews Case information and assigns Case to User B, satisfying Task conditions and exiting Task.	Staff

5.2.9 Update Case Task Requirements

The ACMS Update Case Task is encountered by a Case as it moves along a Workflow. When encountered, the Task requires that a User manually update some aspect of the Case.

This functionality is also available as a purely automated process, by placing a Business Rule configured to update cases along a Workflow.

Table 5-10 Update Case Task Requirements

#	Requirement	Users
F.9.1	The ACMS shall support Configuration Users in the deployment of Update Case Tasks along any configured Workflow within ACMS.	CU
F.9.2	The ACMS shall support Configuration Users in the configuration of Update Case Tasks placed along Workflows within ACMS.	CU
F.9.3	The ACMS shall support Configuration Users in the configuration of Update Case Tasks by designating which aspects of the Case must	CU

#	Requirement	Users
	be updated to satisfy Task conditions.	
F.9.4	<p>The ACMS shall support User management of Appeal Cases by using Update Case Tasks to prompt manual update of Appeal Cases.</p> <p>Example: Appeal Case moves along Workflow A and encounters Update Case Task 1. The Customer Service User assigned to the Case, sees that the Case is awaiting completion of Update Case Task and enters Case. Within Case, Task directions indicate that the CS must review an aspect of the Case and update a "flag" attribute to "Verified". The CS does so, satisfying Task conditions and exiting Task.</p>	Staff

5.2.10 Scheduling Component Requirements

The ACMS Scheduling Component provides both manual and automated support for the weekly scheduling of more than 4,000 Appeal Case Hearings.

By providing individual and shared calendaring, hearing asset management, and task automation tools, the ACMS Scheduling Component seeks to blend centralized oversight with individual availability control. Major capabilities of the system include:

- Support for Scheduler Users in management and oversight of all aspects of the scheduling process.
- Management of all hearing assets, including; SHD and County Staff, Hearing locations, Translation resources, etc.
- Distributed availability control by individual User, User Group, or by Scheduling User.
- Generation of schedules by multiple means:
 - Manual, with ability to override any and all system constraints.
 - Supported generation, with system providing visual cues to guide construction of schedules.
 - Automated, system-driven generation of schedules based on asset attributes.
- Calendar visibility available across ACMS, managed via the Security and Access Control system.
- Use of Automated Notification Function for formal communication with participants in the Hearing process.

Table 5-11 Scheduling Component Requirements

#	Requirement	Users
F.10.1	<p>The ACMS shall support Configuration Users in the creation of Business Rules around Scheduling Activities, which may include:</p> <ul style="list-style-type: none"> • Scheduling Timers tied to Appeal Case attributes, initiated on 	CU

#	Requirement	Users
	<p>Case creation.</p> <ul style="list-style-type: none"> • Scheduling Event Triggers, which can initiate Appeal Case assignment, or other Task-based assignments. • Scheduling Rules constraints, which can limit Scheduling options based on Appeal Case attributes. • Scheduling Notification Rules, which tie Scheduling Events to Notification Template for use in communicating Scheduling activities to Hearing participants. 	
F.10.2	<p>The ACMS shall support Configuration Users and Administration Users in the creation and maintenance of the complete set of Hearing Assets needed in the scheduling process, to include:</p> <ul style="list-style-type: none"> • Staffing Assets – All ACMS Users involved in scheduled Hearings, either as individuals, or as groups. • Location Assets – Physical, and virtual, locations used to house Hearing activities. • Interpreter Assets – Translation services managed by Interpreter Vendors acting within ACMS. 	CU, AU
F.10.3	<p>The ACMS shall support Administration Users in the creation of Location Assets with default attributes to include:</p> <ul style="list-style-type: none"> • Physical location • Available dates and times • Hearing modalities available • Allowed overbooking rates 	AU
F.10.4	<p>The ACMS shall support Administration Users in the creation or identification of Interpreter Assets with default attributes to include:</p> <ul style="list-style-type: none"> • Available dates and times • Hearing modalities • Languages supported 	
F.10.5	<p>The ACMS shall support Administration Users and Supervisor Users in designating which Users and User Groups are available as Hearing Staffing Assets and may be scheduled into Hearings.</p>	AU, SU
F.10.6	<p>The ACMS shall support Administration Users and Supervisor Users in designating which aspects of the Hearing Staffing Asset profile may be directly modified by Hearing Staff Asset Users and which aspects require Supervisor or Scheduling User intervention to allow modification.</p> <p>Example: A CR User wants to reduce availability in a way which will affect a currently scheduled Hearing, can they do this directly, or do they need</p>	

#	Requirement	Users
	to involve a Scheduling User?	
F.10.7	The ACMS shall support Administration Users in designation of Asset default values which can be modified by Scheduling Users.	
F.10.8	<p>The ACMS shall support Administration Users in designation of Business Rule based limits to Asset attribute modification by Scheduling Users.</p> <p>Example: While a Scheduling User can modify calendar availability of a Location Asset, Business Rules associated with all Location Assets prohibit making any Location Asset available on a State holiday.</p>	
F.10.9	The ACMS shall support Administration Users in assignment to Scheduler Users the ability to create specific instances of a default Configured Asset for ongoing management.	AU
F.10.10	The ACMS shall support Scheduler Users in the management of all scheduling Assets assigned to them.	SH
F.10.11	The ACMS shall support Scheduler Users in modifying Default Asset values which have been made modifiable by the Administrator User. For example; Administration User creates a Default Location Asset with attributes and Business Rule based modification limitations. The Scheduling User then creates a specific Location instance, modifies its availability schedule, and schedules Hearings for that location.	
F.10.12	<p>The ACMS shall support Scheduler Users in the designation of the set of Assets required to schedule a Hearing on the following basis:</p> <ul style="list-style-type: none"> • per-Location Asset • per-Location Asset available Time Period • per-Hearing Modality 	
F.10.13	The ACMS shall have the capability to select resource and asset needs for each location, for each time slot, and for each modality selected.	
F.10.14	The ACMS shall have the capability to schedule physical resources separately from participants, by location, by time slot and by modality.	
F.10.15	<p>The ACMS shall support the Scheduler User in setting identifier flags when special accommodations or facility needs are required.</p> <p>Example: Administration User creates new Location Asset for location X and assigns control to Scheduler User. Scheduler User takes Location X and creates time slots for Monday from 10:00am to 11:00 am. Scheduler User then identifies that Location Time Slot as supporting Wheelchair access, up to three 15-minute hearings per hour, and allowed overbooking of 50%, and adds a Spanish Language Translation Asset. Location Time Slot asset is then available for Case booking.</p>	

F.10.1 6	The ACMS shall support any Staff User who has been designated as a Hearing Staffing Asset (HSA) or has been given access via Security and Access Control, by providing a Hearing Calendar UI which displays all User availability and currently scheduled Hearings.	ALL Staff
F.10.1 7	The ACMS shall support HSA Users in indicating their availability within their HSA Calendar as per: <ul style="list-style-type: none"> • Days they are available or unavailable. • Hearing modalities which they can or cannot support. • Locations at which they are available. 	
F.10.1 8	Any Staff User who is a member of a User Group designated as a Group Hearing Staffing Asset (HSA) shall have access to an individual Hearing Calendar UI, which can be viewed simultaneously with the User Group Calendar UI, to allow visualization of entire-Group coverage of dates and Locations.	
F.10.1 9	The ACMS shall support Scheduler Users in deployment of User Group Hearing Staffing Assets without identification of individual Users in the Group. <small>Example: ALJ Users are managed as an anonymous pool of available Hearing Staffing Assets. The individual AJ Users maintain their own Hearing Calendars, but are not known by name during the Scheduling Process.</small>	
F.10.2 0	The ACMS shall support any User who is scheduled into any Hearing by providing a Scheduling Queue within their User Dashboard UI.	
F.10.2 1	The ACMS shall support all Users by updating Calendars on a real-time basis to reflect all Live Calendar scheduling.	ALL Staff
F.10.2 2	The ACMS shall support Scheduler Users in the creation and maintenance of all Appeal Hearings via use of a set of scheduling tools.	
F.10.2 3	The ACMS shall support Scheduler Users in coordinating scheduling activities by preventing, and alerting users, to attempts at simultaneous manipulation of any Scheduling Asset by more than one Scheduler User.	
F.10.2 4	The ACMS shall support Scheduler Users in the collection/selection of single or multiple Appeal Cases for Scheduling via Appeal or Claimant Search.	

F.10.2 5	<p>The ACMS shall support Scheduler Users in the scheduling of Appeal Cases into Hearings via the provision of a Scheduling UI capable of displaying the following:</p> <ul style="list-style-type: none"> • Individual or multiple Appeal Cases to be scheduled. • Hearing Location Assets • Hearing Staffing Assets • Hearing Interpreter Assets 	
F.10.2 6	<p>The ACMS shall support Scheduler Users in visualizing, within a Scheduling UI, possible scheduling fit between the various Assets by:</p> <ul style="list-style-type: none"> • Allowing Scheduling User to show or hide, and group items on, the various attributes associated with the Assets displayed. • Showing scheduling constraints introduced by Scheduling Business Rules <p>Example: The Scheduling User may choose to show the Claimant Language Requirement Attribute for a set of Appeal Cases, and at the same time show available Hearing Interpreter Assets associated with a set of Hearing Location Assets. In doing so, the Scheduling User can then see which available Locations have the Interpreter capabilities needed for which Appeal Cases.</p> <p>Example: The Scheduling User can see that the Appeal Case Hearing Deadline Business Rule requires that a Case be scheduled in a Calendar period extending only to date X.</p>	
F.10.2 7	<p>The ACMS shall support Scheduler Users in planning and executing scheduling work via a two-step process:</p> <ul style="list-style-type: none"> • Initial placement of Appeal Cases into a Draft Schedule which allows visualization of Case placement during planning. • Finalization of Draft Schedule placement by confirmation of Appeal Case scheduling into the Live Schedule. <p>The Draft or Live status of a scheduled Appeal Case shall be visually evident, and available as a filtering option, in all Calendar UIs.</p>	
F.10.2 8	<p>The ACMS shall support Scheduler Users in managing Scheduling or Appeal Cases by allowing Draft Calendars to be shared for approval by other Users.</p>	
F.10.2 9	<p>The ACMS shall support Scheduler Users in scheduling Appeal Cases by providing a Manual Scheduling mode in which Scheduler Users manually place Appeal Cases within Location Asset time slots.</p>	

F.10.3 0	<p>The ACMS shall support Scheduler Users in manually scheduling Appeal Cases by displaying conflicts created by manual placement, and allowing manual override of conflict.</p> <p>Example: Scheduling User chooses to place Appeal Case in a Location Asset time slot that will cause the Location overbooking limit to be exceeded. ACMS notifies the Scheduling User of the exact conflict, User chooses to override, and Case is scheduled.</p>	
F.10.3 1	<p>The ACMS shall support Scheduler Users in scheduling Appeal Cases by providing a Supported Scheduling mode in which Scheduler Users choose between possible scheduling scenarios based on Scheduling Asset Attributes and Scheduling Business Rules.</p>	
F.10.3 2	<p>The ACMS shall support Scheduler Users in scheduling Appeal Cases by providing an Automated Scheduling mode in which the ACMS system generates Hearing Schedules based on Scheduling Asset Attributes and Scheduling Business Rules.</p>	
F.10.3 3	<p>The ACMS shall support Scheduler Users in scheduling subsets of Appeal Case groups, by allowing Cases which cannot be placed in a calendar to be saved for future scheduling.</p> <p>Example: Scheduler User works to schedule a group of Appeal Cases into the Hearing Calendar using the Supported or Automated process. 10 out of the 50 Cases do not fit well, system allows Scheduler User to place the Cases that fit, and save the ones that do not for future scheduling.</p>	
F.10.3 4	<p>The ACMS shall support Configuration Users in the support of Scheduling activities by allowing Appeal Case Attributes to determine which Scheduling types are available; Manual, Supported, and/or Automatic.</p> <p>Example: All Harris-type cases may only be scheduled manually.</p>	
F.10.3 5	<p>The ACMS shall support Scheduler Users in communicating with Hearing participants around Scheduling activity, via automated or semi-automated generation of Templated Notifications based on configured Business Rules.</p>	SU
F.10.3 6	<p>The ACMS shall support Scheduler Users in controlling User notifications around scheduling activity by providing ability to manually generate or override all Notifications associated with Scheduling.</p>	SU
F.10.3 7	<p>The ACMS shall support Configuration Users in configuring availability of manual generation and override around Scheduling Notifications.</p>	CU

5.2.11 Schedule Case Task Requirements

The ACMS Schedule Case Task is encountered by a Case as it moves along a Workflow. When encountered, the Task requires that a User schedule the Case via one of the ACMS scheduling options.

This functionality is also available as a purely automated process, by placing a Business Rule configured to schedule cases along a Workflow.

Table 5-12 Schedule Case Task Requirements

#	Requirement	Users
F.11.1	The ACMS shall support Configuration Users in the deployment of Schedule Case Tasks along any configured Workflow within ACMS.	CU
F.11.2	The ACMS shall support Configuration Users in the configuration of Schedule Case Tasks placed along Workflows within ACMS.	CU
F.11.3	The ACMS shall support Configuration Users in the configuration of Schedule Case Tasks by designating what type of scheduling (Hearing, Prehearing, etc.) must be completed to satisfy Task conditions.	CU
F.11.4	<p>The ACMS shall support User management of Appeal Cases by using Schedule Case Tasks to prompt manual scheduling of Appeal Cases.</p> <p>Example: Appeal Case moves along Workflow A and encounters Schedule Case Task 1. The Scheduler Service User assigned to the Case, sees that the Case is awaiting scheduling and enters Case. Within Case, Task directions indicate that the SU must schedule a Prehearing. The SU does so, satisfying Task conditions and exiting Task.</p> <p>Example: Appeal Case is currently assigned to Scheduler User A awaiting scheduling. When Case is not scheduled within 30 days of creation, Business Rule updates Case Status to Overdue. Overdue Case then shows at top of Scheduler User A dashboard. Case is also then visible on Supervisor User dashboard and included in the daily Overdue Case Report. At the 35 day overdue point, Business Rule assigns the Schedule Case Task to User B, who then completes it.</p>	SU

5.2.12 Notification Template Component Requirements

The Notification Template Component provides a set of communication templates for use in all aspects of ACMS communication, including, but not limited to:

- System notifications sent to Users at every phase of the Appeals process.
- Formal notifications sent to Claimants and their Authorized Representatives.
- Notifications sent to State Agencies and Program Administrators.

The Notification Template Component allows generation of a formatted message, populated with data from any area of ACMS data, including, but not limited to:

- Claimant User
- Appeal Case
- Linked Appeal Case
- Staff User

Multi-language support is a critical aspect of the Notification Template Component, with Business Rule driven selection of language used. Availability of Templates and Data is controlled by standard ACMS Security and Data-Access configuration.

Table 5-13 Notification Template Component Requirements

#	Requirement	Users
F.12.1	The ACMS shall support Users with configured access, in management of the set of Notification Templates used in all aspects of ACMS communications, via provision of a Notification Template management UI.	Staff
F.12.2	The ACMS shall support Users in management of Notification Templates by providing standard search, filter and sort functionality within the Notification Template Management UI.	Staff
F.12.3	The ACMS shall support Users in creation of Notification Templates by three methods: <ul style="list-style-type: none"> • Cloning an existing Template, to be edited and saved under a new name. • Uploading a formatted Word or PDF document, as basis for Template. • Creating a new Template document entirely within the ACMS WYSIWYG editing environment. 	Staff
F.12.4	The ACMS shall support Users in creation of Notification Templates by providing a WYSIWYG editing environment capable of providing formatting options available in modern word processing applications.	Staff

F.12.5	The ACMS shall support Users in the inline placement of data tags within Templates, to be populated from ACMS data and Business Rule sources at the time of Notification generation.	Staff
F.12.6	The ACMS shall support Users in the management of multiple language versions of a given Template.	Staff
F.12.6.1	The ACMS shall support Templates in the following languages within one month of launch: <ul style="list-style-type: none"> • English • Chinese • Russian • Spanish • Vietnamese • Arabic • Armenian • Cambodian • Farsi • Hmong • Korean • Lao • Tagalog 	
F.12.7	The ACMS shall support Users in the inline placement of electronic signatures and seals within Templates.	Staff
F.12.8	The ACMS shall support Users in selection of one or more modes of Notification Template use, including, but not limited to: <ul style="list-style-type: none"> • In-System Notifications • Email • Telephone calls • Output for Postal Mail 	Staff
F.12.9	The ACMS shall support Users by maintenance of a detailed Notification Template use log, associated with each Appeal Case and Claimant User.	ALL
F.12.10	The ACMS shall support Administrator Users by maintenance of a system-wide Notification Template use log, accessible via dashboard configuration.	AU
F.12.11	The ACMS shall control User access to Notification Template management functionality via the ACMS Security and Access Control system.	ALL

F.12.1 2	The ACMS shall support Configuration Users in configuration of Business Rules which trigger Notification Templates.	CU
F.12.1 3	The ACMS shall support Configuration Users in configuration of Workflow Tasks which trigger Notification Templates.	CU
F.12.1 4	The ACMS shall support User search within all generated Notifications.	ALL

5.2.13 Notification Task Requirements

The Notification Task, prompts assigned User to generate one or more Notifications in association with an Appeal Case. The Task is exited once User has met the configured requirements of Task.

Table 5-14 Notification Task Requirements

#	Requirement	Users
F.13.1	The ACMS shall support Configuration Users in the addition of Notification Tasks to any ACMS Workflow.	CU
F.13.2	The ACMS shall support Configuration Users in the configuration of a Notification Task to require a User to send a Notification in association with an Appeal Case.	CU
F.13.3	The ACMS shall support Configuration Users in designation of the conditions needed to complete a Notification Task, including, but not limited to: <ul style="list-style-type: none"> • Business-Rule driven conditions • Notification Types required • Required Recipients of Notification • Methods of Notification required 	CU
F.13.4	The ACMS shall support Users in completion of Notification Tasks by providing the tools needed to generate and send a Notification within an Appeal Case. Example: Scheduler User is assigned an Appeal Case Notification Task. On entering the Case, the Task instructions indicate that they must send a single email Notification with an attached Document to a Program Office. The SH uses the appropriate Template to generate the Notification, adds the previously generated Document to it, customizes the Notification body text, and sends it via email within the ACMS. With these actions, the Task completes, and the Appeal Case continues to the next step in the Workflow.	Staff

5.2.14 Document Template Component Requirements

Functionality associated with Case Documents Component shall include, but not be limited to:

- Configurator control to allow/exclude specific uploaded files types.
- Management of document categories and requirements associated with Appeal Cases.
- Document visibility and modification controlled by ACMS Security and Access Control Component.
- Document upload management.
- Virus/Trojan scanning of uploaded documents.
- Versioning control and tracking.
- Document conversion to PDF.
- Manual and Business Rule based concatenation of documents.
- Search within Documents.
- Configuration of metadata for Documents
- 508 Compliance validation of uploaded documents

Multi-language support is a critical aspect of the Document Template Component. The ACMS provides an environment which eases collaborative management of the hundreds of Template versions. Availability and use of Document Templates is controlled by standard ACMS Security and Data-Access configuration.

Table 5-15 Document Template Component Requirements

#	Requirement	Users
F.14.1	The ACMS shall support Users with configured access, in management of the set of Document Templates used in all aspects of ACMS legal documentation, via provision of a Document Template Management UI.	Staff
F.14.2	The ACMS shall support Users in management of Document Templates listed within the Document Template Management UI, by providing standard search, filter and sort functionality.	Staff
F.14.3	The ACMS shall support Users in creation of Document Templates via the following methods: <ul style="list-style-type: none"> • Cloning an existing Template, which is then edited and saved under a new name. • Uploading a formatted Word or PDF document, as basis for Template. 	Staff

#	Requirement	Users
	<ul style="list-style-type: none"> Creating a new Template document entirely within the ACMS WYSIWYG editing environment. 	
F.14.4	The ACMS shall support Users in creation of Document Templates by providing a WYSIWYG editing environment capable of supporting the formatting options available in modern word processing applications.	Staff
F.14.5	The ACMS shall support Users with the inline placement of data tags within Document Templates, to be populated from ACMS data and Business Rule sources at the time of Document generation.	Staff
F.14.6	The ACMS shall support Users in dynamic inclusion of Business Rules generated data and content in Document Templates as a means of replicating the currently SHD "Torbert Tool"	Staff
F.14.7	The ACMS shall support Users in the management of multiple language versions of a given Template.	Staff
F.14.8	The ACMS shall support Users with the inline placement of electronic signatures and seals within Templates.	Staff
F.14.9	The ACMS shall support Users in selection of one or more output options for Document Template use, including, but not limited to: <ul style="list-style-type: none"> PDF generation Image file generation Other legally-required output options 	Staff
F.14.10	The ACMS shall support Users by maintenance of a detailed Document Template use log, associated with each Appeal Case and Claimant User.	ALL
F.14.11	The ACMS shall support Administrator Users by maintenance of a system-wide Document Template use log, accessible via dashboard configuration.	AU
F.14.12	The ACMS shall control User access to Document Template management functionality via the ACMS Security and Access Control system.	ALL
F.14.13	The ACMS shall support Configuration Users in configuration of Business Rules which trigger creation of documents using Document Templates.	CU
F.14.14	The ACMS shall support Configuration Users in configuration of Workflow Tasks which use Document Templates.	CU

F.14.1 5	<p>The ACMS shall support Configuration Users in configuration of Section 508 compliance scanning uploaded PDFs. The requirement is associated with Document Type.</p> <p>Example: County User uploads a PDF to a Case as Document Type X. This document type is configured to require Section 508 compliance. On upload, ACMS scans uploaded Document for Section 508 compliance and finds that the PDF is not compliant. System message is displayed to user indicating the noncompliant status of document and providing a link to the complete Section 508 compliance scan report. Document is not added to Case.</p> <p>Example of Section 508 Compliance Scanner: http://www.commonlook.com/CommonLook-PDF</p>	CU
-------------	---	----

5.2.15 Add Documents Task Requirements

The Add Documents Task, prompts assigned User to add one or more electronic documents to an Appeal Case. The Task is exited once User has met the configured requirements of Task.

Table 5-16 Add Documents Task Requirements

#	Requirement	Users
F.15.1	The ACMS shall support Configuration Users in the addition of Add Documents Task to any ACMS Workflow.	CU
F.15.2	The ACMS shall support Configuration Users in the configuration of an Add Documents Task to require a User to add a Document to an Appeal Case via one of the following methods: <ul style="list-style-type: none"> • ACMS Generation of Templated Documents. • Upload of external file as a Document. • Identification of an existing ACMS Document. 	CU
F.15.3	The ACMS shall support Configuration Users in designation of the conditions needed to complete an Add Document Task, including, but not limited to: <ul style="list-style-type: none"> • Business-Rule driven conditions • Document Types required • Numbers of Documents • Document file types 	CU
F.15.4	The ACMS shall support Users in completion of Add Document Tasks by providing the tools needed to upload and accession a document file within an Appeal Case. <p>Example: County Appeals Representative User is assigned an Appeal Case Add Document Task. On entering the Case, the Task instructions indicate that they must add a single "Legal Document X" to the Case. The CR locates the paper file, scans it, and uploads it to ACMS. Once in ACMS the scanned image file is processed and added to the Appeal Case as "Legal Document X", the Task completes, and the Appeal Case continues to the next step in the Workflow.</p> <p>Example: At conclusion of Hearing, the Case moves along the Workflow and encounters an Add Document Task configured to prompt Administrative Law Judge User (AJ) to add the Case Decision. Upon entering the Add Document Task, AJ is provided with a Business Rules selected and populated Templated Document for the Case. The AJ instead chooses to upload their own Decision Letter, produced via use of Torbert Tools in MS Word. As this replacement is permitted by ACMS configuration, the Task completes, and the Appeal Case continues to the next step in the Workflow.</p>	Staff

F.15.5	<p>The ACMS shall support Users in completion of Add Document Tasks by providing the tools needed to generate documents within ACMS and add them to the Appeal Case.</p> <p>Example: Customer Service User is assigned an Appeal Case Add Document Task. On entering the Case, the Task instructions indicate that they must add an Updated Decision Letter to the Case. The CS views the Case document set, finds the Decision Letter, which is out of date, and uses Templated Document tools to refresh it from current data. The CU then identifies the updated Document as being provided to meet the Task requirement, the Task completes, and the Appeal Case continues to the next step in the Workflow.</p>	Staff
--------	--	-------

5.2.16 Case Notes Component Requirements

The ACMS Case Notes Component provides a set of tools used to add and manage Notes associated with a Case, User, Hearing, or Decision.

Table 5-17 Case Notes Component Requirements

#	Requirement	Users
F.16.1	The ACMS shall support all Users by providing the ability to add textual Notes to any User, Case, Hearing, or Decision in the system.	ALL
F.16.2	The ACMS shall support Configuration Users in controlling Notes visibility and editing via the Security and Access Control configuration system.	CU
F.16.3	The ACMS shall support Configuration Users in configuring multiple Notes types, each of which may have visibility and editing controlled via the Security and Access Control configuration system.	CU
F.16.4	<p>The ACMS shall support Configuration Users in configuring Notes attributes, such as "flags" which then can be used to in Business Rules based functionality.</p> <p>Example: Scheduling User adds a Note with an "Urgent" attribute flag to an Appeal Case. Business Rule then routes Case to Scheduling User responsible for flagged Cases.</p>	CU
F.16.5	The ACMS shall support Staff Users by providing the ability to indicate the visibility of Notes added, within the constraints of Security and Access Control configuration provided.	Staff
F.16.6	The ACMS shall support Users in Notes creation by providing a WYSIWYG editing environment capable of multi-language support.	ALL
F.16.7	The ACMS shall support Users in Notes creation by providing an editing environment which supports copy/paste from Word and Internet Browser sources.	ALL

F.16.8	The ACMS shall support Users in Notes creation by providing an editing environment which supports hyperlinking to Cases, Users, Hearings, Documents, Notes, etc.	ALL
F.16.9	The ACMS shall support Users in Notes management by supporting threading within any Notes set.	ALL
F.16.10	The ACMS shall support Users in Notes editing by allowing update of Notes, with logging of changes.	ALL
F.16.11	The ACMS shall support Users in Notes use by supporting import and export of a single Note or multiple Notes by thread or Case.	ALL

5.2.17 Add Notes Task Requirements

The ACMS Add Notes Task is encountered by a Case as it moves along a Workflow. When encountered, the Task requires that a User add one or more Notes to the Case. This functionality is also available as a purely automated process, by placing a Business Rule configured to add notes to a Case along a Workflow.

Table 5-18 Add Notes Task Requirements

#	Requirement	Users
F.17.1	The ACMS shall support Configuration Users in the deployment of Add Notes Tasks along any configured Workflow within ACMS.	CU
F.17.2	The ACMS shall support Configuration Users in the configuration of Add Notes Tasks placed along Workflows within ACMS.	CU
F.17.3	The ACMS shall support Configuration Users in the configuration of Add Notes Tasks by designating what type of Note must be added to satisfy Task conditions.	CU
F.17.4	The ACMS shall support User management of Appeal Cases by using Add Notes Tasks to prompt manual addition of Notes to Appeal Cases. Example: Appeal Case moves along Workflow A and encounters Add Notes Task 1. The County Appeals Representative User (CR) assigned to the Case, sees that the Case is awaiting notes and enters Case. Within Case, Task directions indicate that the SU must add a Note of Type B to the Case. The SU does so, satisfying Task conditions and exiting Task.	Staff

5.2.18 Case Recording Component Requirements

The Case Recording Function provides tools to generate and manage audio and video Recording files in association with an Appeal Case. Case Recording functionality includes, but is not limited to:

- Provision of a recording utility
- Produce recordings meeting legal requirements for documentation

- Provide recording annotation tools
- Integrate with VR Navigation system
- Available within ACMS conference calls
- Provide tools for playing files within ACMS environment
- Provide tools for management of files
- Support import and export of recording files
- Association of metadata with Recordings

Table 5-19 Case Recording Component Requirements

#	Requirement	Users
F.18.1	The ACMS shall support Configuration Users in managing Recording functionality within ACMS by providing a Recording Management UI.	CU
F.18.2	The ACMS shall support Configuration Users in managing Recording functionality within ACMS by controlling access to all aspects of Component via use of ACMS Security and Access Control Component.	CU
F.18.3	The ACMS shall support Configuration Users in managing Recording functionality within ACMS by supporting configuration of Recording Type attributes.	CU
F.18.4	The ACMS shall support Configuration Users in managing Recording functionality within ACMS by supporting configuration to limit User ability to delete and replace recording files within ACMS.	CU
F.18.5	The ACMS shall support Staff Users in producing recording files via one of three methods: <ul style="list-style-type: none"> • Use of an ACMS recording utility available within the ACMS UI. • Use of an IVR system based recording utility available within ACMS conference calls. • Upload of Audio and Video recording files produced by a non-ACMS system. 	Staff
F.18.6	The ACMS shall support Users in satisfying hearing documentation requirements via provision of an ACMS recording utility, which meets standards for legal documentation, and is available within the ACMS environment.	Staff

F.18.7	The ACMS shall support Users in recording hearings via use of the ACMS recording utility which provides standard functionality for production of audio and video recording, including, but not limited to: <ul style="list-style-type: none"> Record audio Record video Annotate recordings Playback of recordings Monitoring of recordings during session Naming of recordings 	Staff
F.18.8	The ACMS shall support Users in using recordings by providing the ability to play back audio and video recordings within the ACMS environment.	ALL
F.18.9	The ACMS shall support Users in using recordings by providing the ability to associate recording files with Appeal Cases.	Staff
F.18.10	The ACMS shall support Users in management of recordings by providing the ability to create folder and subfolder structures to contain recording files in association with Appeal Cases.	Staff
F.18.11	The ACMS shall support Users in management of recordings by providing version tracking of recording files.	Staff
F.18.12	The ACMS shall support Administration Users in management of recording files by providing comprehensive logging of all Recording activity within ACMS.	AU
F.18.13	The ACMS shall support Configuration Users in managing Recording functionality within ACMS by supporting configuration of Recording Metadata attributes which are associated with/embedded within the recording file.	CU

5.2.19 Add Recording Task Requirements

The ACMS Add Recording Task is encountered by a Case as it moves along a Workflow. When encountered, the Task requires that a User add one or more Recordings to the Case.

This functionality is also available as a purely automated process, by placing a Business Rule configured to add recordings to a Case along a Workflow.

Table 5-20 Add Recording Task Requirements

#	Requirement	Users
F.19.1	The ACMS shall support Configuration Users in the deployment of Add Recording Tasks along any configured Workflow within ACMS.	CU

F.19.2	The ACMS shall support Configuration Users in the configuration of Add Recording Tasks placed along Workflows within ACMS.	CU
F.19.3	The ACMS shall support Configuration Users in the configuration of Add Recording Tasks by designating what type of Recording must be added to satisfy Task conditions.	CU
F.19.4	The ACMS shall support User management of Appeal Cases by using Add Recording Tasks to prompt manual addition of Recording to Appeal Cases. Example: Appeal Case moves along Workflow A and encounters Add Recording Task 1. The County Appeals Representative User (CR) assigned to the Case, sees that the Case is awaiting a Recording and enters Case. Within Case, Task directions indicate that the SU must add a Recording of Type B to the Case. The SU does so, satisfying Task conditions and exiting Task.	Staff

5.2.20 Content and Navigation Component Requirements

The ACMS is accessed via a HTML, ADA Section 508-compliant User Interface which serves to provide the widest possible availability and lowest support cost.

The ACMS Content and Navigation System is modeled on the functionality associated with existing systems currently in wide use. A partial feature list includes:

- Management of all content not specific to Users, Cases, Hearings, etc.
- Includes content management tools used to support Staff addition of Text and Media content.
- Supports draft content creation by any User with appropriate permissions.
- Supports defined approval processes which may vary by content area.
- Provides versioning and reversion control for all Content and Navigation.
- Supports Users in Navigation structure and content management.
- Uses the ACMS Security and Access Control system for User access and permission control.
- Supports use of page templates and CSS-based design control.

Table 5-21 Content and Navigation Component Requirements

#	Requirement	Users
F.20.1	The ACMS shall support Configuration Users in designation of which Users and User Groups may access the Content and Navigation Component functionality.	CU
F.20.2	The ACMS shall support Users in management of ACMS content and navigation via a Content and Navigation Management UI.	Staff

F.20.3	The ACMS shall support Users in viewing all ACMS content within the Content and Navigation UI by listed display of Content and Navigation items, with provision of standard search, filtering, and sorting tools.	Staff
F.20.4	The ACMS shall support Users in management of ACMS Content by linking Content items listed in the Content and Navigation Management UI to a WYSIWYG content editing environment.	Staff
F.20.5	The ACMS shall support Users in management of ACMS Content and Navigation by supporting the creation of Content or Navigation item via one of several methods: <ul style="list-style-type: none"> • Duplication of Template • Duplication of existing Content or Navigation • Upload of file as basis for new Content or Navigation • Creation of empty Content or Navigation item 	Staff
F.20.6	The ACMS shall support Users in management of ACMS Navigation by linking Navigation items listed in the Content and Navigation Management UI to a Navigation editing environment.	Staff
F.20.7	The ACMS shall support Users in management of ACMS Content by supporting upload of Image/Media content and inclusion in Content via use of Content editing environment.	Staff
F.20.8	The ACMS shall support Configuration Users in management of ACMS Content by designation of accepted and excluded content file types and sizes.	CU
F.20.9	The ACMS shall support Users in management of ACMS Content and Navigation by providing Virus/Trojan scanning and deletion of any infected uploaded content.	Staff
F.20.10	The ACMS shall support Users in management of ACMS Content by providing Versioning control and tracking for all Content and Navigation.	Staff
F.20.11	The ACMS shall support Users in management of ACMS Content by support of content templates and CSS-based style control.	Staff
F.20.12	The ACMS shall support Users in management of ACMS Content by supporting concatenated Content use.	Staff
F.20.13	The ACMS shall support Configuration and Administration Users in management of ACMS Content and Navigation by supporting definition of Content and Navigation approval processes, which may vary between Content and Navigation areas.	CU, AU
F.20.14	The ACMS shall support Users in management of ACMS Content and Navigation by support for Draft status on creation/modification, and approval via a defined process.	Staff

F.20.1 5	The ACMS shall support Users in management of ACMS Content and Navigation by supporting reversion, even post approval.	Staff
-------------	--	-------

5.2.21 Voice Navigation Component Requirements

The ACMS Voice Navigation Component provides 24/7 access to a subset of system functionality via an Interactive Voice Response (IVR) system. Within ACMS, IVR provides access to ACMS UI content in two critical areas:

- Public-facing information shared with non-validated Users
- Claimant and Authorized Representative accessible information

Within these areas, Users interact with ACMS via telephone, using DMTF or voice responses to prompts as a means of traversing the ACMS Navigation.

In addition to content access via IVR, the ACMS Voice Response Component supports submission of IVR captured recordings.

Table 5-22 Voice Navigation Component Requirements

#	Requirement	Users
F.21.1	The ACMS Voice Navigation Component shall support Configuration Users in configuration of IVR operating.	
F.21.2	The ACMS Voice Navigation Component shall support Configuration Users in identification of a subset of ACMS Content and Navigation Component managed content which will be available via IVR.	

5.2.22 Reporting Component Requirements

The ACMS Reporting Component provides a means to leverage the extensive data collection and configurable functionality of the ACMS to provide insight into key aspects of SHD operations and the Appeals Case lifecycle.

Users of ACMS have access to an extensive library of standard reports, as well as the ability to generate new reports. Beyond report generation, the ACMS Reporting Component is an integral part of the ACMS, with Report output available to other Components and processes.

Table 5-23 Reporting Component Requirements

#	Requirement	Users
F.22.1	The ACMS Reporting Component shall support Configuration Users in the creation, maintenance, and execution of Reports via a Reporting Management UI.	CU
F.22.2	The ACMS Reporting Component shall support Configuration Users in the management of all Reports in the ACMS system by providing a	CU

#	Requirement	Users
	list of Reports, with standard search, filter, and sort tools available within the Reporting Management UI.	
F.22.3	<p>The ACMS Reporting Component shall support Configuration Users in the creation of new Reports by:</p> <ul style="list-style-type: none"> • Cloning of existing Reports to be edited and renamed. • Creation of new, empty, Reports. 	CU
F.22.4	The ACMS Reporting Component shall support Configuration Users in the creation of new Reports by requiring use of unique names for each created Report.	CU
F.22.5	The ACMS Reporting Component shall support Configuration Users in the management of access control to Reports via use of the ACMS Security and Access Control Component.	CU
F.22.6	<p>The ACMS Reporting Component shall support Configuration Users in the configuration of Reports which use Inputs from multiple sources within ACMS, including, but not limited to:</p> <ul style="list-style-type: none"> • Database fields • ACMS Objects • Business Rules 	CU
F.22.7	<p>The ACMS Reporting Component shall support Configuration Users in the configuration of Reports which output to multiple locations and processes within ACMS, including, but not limited to:</p> <ul style="list-style-type: none"> • Workflow Tasks • Templated Notifications • Templated Documents • Content Management <p>Example: A Case Lifetime Tracking Report may be generated following a Decision, and included in the archived Case as an attached Document.</p> <p>Example: A Monthly Case Volume Report may be triggered by a Business Rule and passed to the ACMS Content Management Component for approval and display on the ACMS Public-facing Website.</p>	CU
F.22.8	The ACMS Reporting Component shall support Users by including a set of developed Reports at the time of initial ACMS release. See "Table I – Currently Available Reports" as an example of this group.	ALL
F.22.9	<p>The ACMS Reporting Component shall support Users by supporting a variety of output formats, including, but not limited to:</p> <ul style="list-style-type: none"> • PDF • XML 	ALL

#	Requirement	Users
	<ul style="list-style-type: none"> • XLS • Image formats: PNG, JPG, GIF 	
F.22.1 0	The ACMS Reporting Component shall support Users in scheduling Reports, both as one-time Reports as well as regular, recurring, Reports.	ALL

5.2.23 Help and Support Component Requirements

The ACMS Help and Support Component provides closely integrated Support Ticket and Helpdesk management functionality across the ACMS. This Component serves to assist all system users in working within ACMS as well as supporting continuous improvement in ACMS and the Appeals Process. The ACMS Help and Support System is modeled on the functionality associated with similar systems currently in wide use. A partial feature list includes:

- Integrated, context-specific Help available on every UI in the ACMS.
- One-click Support Ticket generation available in every UI within ACMS.
- Support Ticket generation captures full set of incident data for each submission.
- Support Case status and event logging visible within originating User account.
- Support escalation and workflow management tools.
- Multi-language support across User-facing functionality.

Table 5-24 Help and Support Component Requirements

#	Requirement	Users
F.23.1	The ACMS Help and Support Component shall support Configuration Users in managing Help and Support functionality via a Help and Support Management UI.	CU
F.23.2	The ACMS Help and Support Component shall support Configuration Users in managing Help and Support functionality by supporting access control configuration via the ACMS Security and Access Control Component.	CU
F.23.3	The ACMS Help and Support Component shall support authorized Users in managing Help and Support functionality by providing a list of all configured Help Content within the Help and Support Management UI, along with the standard set of search, filter, and sort tools.	CU, Staff
F.23.4	The ACMS Help and Support Component shall support authorized Users in managing Help and Support functionality by providing a list of Support Tickets within the Help and Support Management UI, along with the standard set of search, filter, and sort tools.	Staff

F.23.5	<p>The ACMS Help and Support Component shall support Configuration Users in managing Help and Support functionality by supporting configuration of Support Ticket functionality to include:</p> <ul style="list-style-type: none"> • Placement of Support Ticket generation links within ACMS Content and Navigation Component managed UIs • Support Ticket Generation UIs • Support Ticket assignment and escalation processes. • Support Ticket tracking and User notification processes. • Support Ticket incident environment data collection. 	CU
F.23.6	<p>The ACMS Help and Support Component shall support Configuration Users in managing Help content creation via ACMS Content and Navigation Component tools.</p>	CU
F.23.7	<p>The ACMS Help and Support Component shall support Configuration Users in managing Help content creation via ACMS Content and Navigation Component tools including Multi-Language support.</p>	CU
F.23.8	<p>The ACMS Help and Support Component shall support Users in searching Help content prior to submission of Support Tickets.</p>	ALL

5.2.24 Security and Access Control Component Requirements

Throughout the ACMS, the use of configured Identity and Access Management / Role Based Security and Access Control is used to closely control User access to information and tools. This control is expressed in the following ways:

- Access to the system for non-authenticated users shall be strictly limited to a defined set of public-facing content only.
- Beyond the limited set of public content, access to all system content and data shall be determined by Access Control configuration at the User and/or User Group level.
- Access control in ACMS is granular enough to support multiple levels of User or User Group privilege around any given data or content, to include:
 - No access or visibility at all.
 - Partial access or visibility (ex: can only see last 4 digits of SSN)
 - Full access or visibility.
 - Ability to update.
- Security and Access Control settings are expressed in Search both in fields available when building a query, the fields available in the result display, and the ability to drill-down within a result set.

In all cases within the ACMS, Security and Access Control settings supersede all other functionality, providing a consistent means of providing the data and content security necessary to support standards such as HIPAA.

The ACMS Security and Access Control functionality includes support for multiple types of User login/validation. This reflects both the different types of functionality that ACMS provides, as well as potential statutory/regulatory requirements that may be in force.

The ACMS Security and Access Control system also includes comprehensive logging of all activity performed within the system. Visibility of the result of this logging is configured, with all actors in the system being prohibited from modifying the log files in any way.

Table 5-25 Security and Access Control Component Requirements

#	Requirement	Users
F.24.1	The ACMS shall support all Users in maintaining compliance with security standards via ACMS adherence to HIPAA requirements.	ALL
F.24.2	The ACMS shall support Configuration Users in management of application security and User access via the Security and Access Control Management UI.	CU
F.24.3	The ACMS shall support Configuration Users in management of Security and Access Control by listing all configured Security and Access Control Policies within the Management UI, with a standard set of search, filter and sort tools.	CU
F.24.4	<p>The ACMS shall support Configuration Users in management of Security and Access Control Policies by supporting the organization of ACMS Data Objects into hierarchies which allow Policy application to broad Data areas, as well as to the granular, sub-contents of an area.</p> <p>Example: Configuration User wants to prohibit User Group E from accessing Claimant demographic data. CU can indicate "no access" to the Claimant Demographics data area, rather than having to select sub-items such as "Address 1", "Address 2" etc. With this set up, future expansions of the data area are automatically included in configured access prohibition.</p>	CU
F.24.5	<p>The ACMS shall support Configuration Users in configuring Security and Access Control policy around all aspects of ACMS, including, but not limited to:</p> <ul style="list-style-type: none"> • All Data Objects • Documents • Notes • Recordings • Messages 	CU

#	Requirement	Users
	<ul style="list-style-type: none"> • All system functionality • All UI content 	
F.24.6	The ACMS shall support Configuration and Administration Users in creation of Security and Access Policy by supporting a variety of levels of access, to include: <ul style="list-style-type: none"> • No access or visibility at all. • Partial access or visibility (ex: can only see last 4 digits of SSN) • Full access or visibility • Ability to update/delete 	CU
F.24.7	The ACMS shall support Configuration and Administration Users in creation of Security and Access Policy by supporting the cloning of existing Policies as a starting point for new Policies.	CU
F.24.8	The ACMS shall support Configuration and Administration Users in creation of Security and Access Policy by supporting the creation on new, blank, Policies.	CU, AU
F.24.9	The ACMS shall support Configuration and Administration Users in management of Security and Access Policy by supporting the concatenation and cascading of Policies.	CU, AU
F.24.10	The ACMS shall support Configuration Users in the creation of User Group specific User Login UIs.	CU
F.24.11	The ACMS shall support Configuration Users in the management of User Login requirements through configuration of User Group specific processes for account validation and username/password recovery.	CU
F.24.12	The ACMS shall support Configuration and Administration Users in management of Security and Access Policy by providing detailed logging of all aspects of Policy creation, modification, and implementation.	CU, AU
F.24.13	The ACMS shall support Administration Users in management of Security and Access Policy by prohibiting deletion or modification log files by any User throughout ACMS.	AU
F.24.14	The ACMS shall support Users in use of the ACMS system by seamless integration into all aspects of ACMS.	ALL

5.2.25 Document Search Component Requirements

The Document Search function serves to support Users in identifying Documents within the ACMS. To serve the range of User need, this function must be configurable, by User Group, along the following dimensions:

- Availability of function within UI.
- Availability of customized UIs.
- Definition of data used as input to Search.
- Validation rules associated with input data.
- Result data displayed in response to search.
- Linking of data within result UI.

Table 5-26 Document Search Component Requirements

#	Requirement	Users
F.25.1	The ACMS shall support Configuration Users in designation of which User Groups will have an "Document Search" tool available within their ACMS Dashboard UI.	CU
F.25.2	The ACMS shall support Configuration Users in the design of a UI to be used in Document Search.	CU
F.25.3	The ACMS shall support Configuration Users in creation of multiple Document Search UIs, and the designation of availability to specific User Groups.	CU
F.25.4	The ACMS shall support Configuration Users in designation of data fields used for Document Search.	CU
F.25.5	The ACMS shall support Configuration Users in designation of system validation rules to be applied to data submitted within Document Search.	CU
F.25.6	The ACMS shall support Configuration Users in designation of UI and search results format displayed in response to submission of Document Search.	CU
F.5.7	<p>The ACMS shall support all Users within Document privileged User Groups in searching for Documents via configured Document UIs, Validation, and Result Display functionality for their particular User Group.</p> <p>Example: Staff User uses advanced Document Search, entering partial Document Metadata Information or Document Content with Boolean modifiers. ACMS returns partial matches sorted by degree of match.</p>	ALL

6. ACMS NON-FUNCTIONAL REQUIREMENTS

This section is devoted to Non-Functional Requirements (NFRs) for ACMS. NFRs are requirements that specify criteria for operation of ACMS as a system, in contrast to ACMS functions or behaviors that have been described in section “ACMS Functional Requirements” above. In this section, NFRs for ACMS are grouped as follows:

- Usability Requirements, including Learnability, Operability, User Error Protection, User Interface Aesthetics, and Accessibility.
- ACMS Technical Capabilities and Architectural Requirements.
- Technical Requirements, including Performance, Compatibility, Reliability, Security, Maintainability, and Portability.

6.1 Usability Requirements for ACMS

This section describes Usability Requirements for ACMS. Following the standard distinction between Functional and Non-Functional Requirements, Usability requirements belong to the latter group.

6.1.1 Usability Background

“Usability” is defined in ISO 25010 as follows:

Usability is degree to which a product or system can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use.

In context of ACMS, the above definition of usability emphasizes the importance of users, their needs and the context in which ACMS is to be used:

- In ACMS, the context of use is given by the following:
 - The domain of the application – case management related to claims about services or their levels, and the process of resolving the claims through legal procedure (hearings)
 - The way of accessing the system: both using intra- and extra-net access
 - The type of user interface – graphical user interface, web browser-based required for non-intranet users and preferred for intranet users.
- Different groups of users have different functional needs and work goals. They may have different understanding of what makes the solution suitable for their needs or usable in context of their specific tasks and responsibilities. The groups of users in ACMS are described in the section 5.1 “User Groups”.
- In ACMS, the main difference in the way of interacting with the system is between Claimants and their Representatives on one hand, and all other user types on the other hand. The former will access the system from Internet and the scope of information accessible to them is limited to some of the information directly relevant to their case, such as status, hearing and disposition

information, rather than all information that is internally available to appropriate users in respective areas. The latter will access the system using Intranet or secure access to the Intranet, with strict enforcement of data access policies.

Usability requirements for ACMS make use of Usability characteristics as defined by the ISO 25010 standard. The standard-provided characteristics are as follows: Appropriateness Recognizability, Operability, Learnability, User Error Protection, User Interface Aesthetics, and Accessibility. These characteristics are described in the following table. The ACMS-applicable requirements for each of the characteristics are identified in the subsection that follows.

Table 6-1 Usability Characteristics Definitions

Attribute	Description
Appropriateness Recognizability	Degree to which users can recognize whether a product or system is appropriate for their needs.
Learnability	Degree to which a product or system can be used by specified users to achieve specified goals of learning to use the product or system with effectiveness, efficiency, freedom from risk and satisfaction in a specified context of use
Operability	Degree to which a product or system has attributes that make it easy to operate and control.
User Error Protection	Degree to which a system protects users against making errors.
User Interface Aesthetics	Degree to which a user interface enables pleasing and satisfying interaction for the user.
Accessibility	Degree to which a product or system can be used by people with the widest range of characteristics and capabilities to achieve a specified goal in a specified context of use.

6.1.2 ACMS Usability Requirements by Characteristics

The following subsections provide usability requirements for ACMS grouped in accordance with the Usability Assessment Model provided by ISO 25010, as described in the previous section.

Note that the term “Graphical User Interface” (GUI) is applicable to all forms of visual representation of data on screen to the user, including web browsers.

1) Appropriateness Recognizability

Appropriateness Recognizability is defined as the degree to which users can recognize whether a product or system is appropriate for their needs. The following table lists requirements relevant for this usability characteristic in ACMS.

Table 6-2 ACMS Usability – Fitness for Purpose Requirements

#	Requirement	Notes
UF.1	Graphical (including Web-based) User Interface in ACMS shall clearly distinguish between information required by the user in the <i>current</i> performed task at hand from all background and non-crucial information.	
UF.2	ACMS shall use clear visual convention to indicate the position of the currently performed task in the overall workflow as being executed by the user.	
UF.3	ACMS shall use clear visual convention to indicate the values of attributes of interest in a work item, such as priority of the case being worked on, or approaching due date.	
UF.4	ACMS shall use hyperlinks to indicate existing connections with other elements of relevant data in order to facilitate navigating to that element.	
UF.5	ACMS shall adopt consistent and clear visual conventions to group together data elements that belong together – such as pages, tabs, or widget groups.	
UF.6	ACMS shall provide for navigating between multiple related screens or web pages without losing information from the original screen or page.	

UF.7	ACMS shall provide a mechanism for pre-populating data in a screen or a web page in cases where the data in question is already available in the user session.	
------	--	--

2) Learnability

Learnability is defined as degree to which a product or system can be used by specified users to achieve specified goals of learning to use the product or system with effectiveness, efficiency, freedom from risk and satisfaction in a specified context of use. The following table lists requirements relevant for this characteristic in ACMS.

Table 6-3 ACMS Usability – Learnability Requirements

#	Requirement	Notes
UL.1	ACMS shall provide contextual On-Line Help to be used by the Users in function of their role and task performed in the system.	
UL.2	ACMS shall provide personalization elements to help novice users understand the meaning of abbreviations, shortcuts and similar conventional marks in the GUI.	
UL.3	ACMS shall provide clear directions as to the accepted format of input data in input fields where user input is validated. These directions should be made accessible as a result of validation error or by explicit action from the user to access them.	
UL.4	ACMS shall provide links between tasks and applicable Reference Material, such as applicable sets of Forms, electronic Manuals, and similar digital resources. This linking shall not be constrained with respect to the type of resource pointed to, provided it is a digital resource.	
UL.5	ACMS shall provide a learning environment with data sufficient to learn the system. The data in this environment shall not violate any HIPAA privacy provisions.	

3) Operability

Operability is defined as degree to which a product or system has attributes that make it easy to operate and control.

The following table lists requirements relevant for this characteristic in ACMS.

Table 6-4 ACMS Usability – Operability Requirements

#	Requirement	Notes
UO.1	ACMS shall use standard set of user interface controls (“widgets”) – at a minimum, editable input fields, labels, group boxes, drop-down boxes, radio buttons and their groups, check buttons and their groups, tables, and sliders.	
UO.2	ACMS shall communicate to the User data items or events of higher priority using a consistent visual convention (such as dedicated color, font, and/or other visual attributes).	
UO.3	ACMS shall require confirmation from the User to perform deletion operations with persistent side-effects, such as removal of an attachment, note, or similar element whose deletion cannot be undone.	
UO.4	In case of operations running longer than the typical user interactions with the system, ACMS shall use clear visual indications to wait.	
UO.5	In case of operations running longer than 10 (ten) seconds, ACMS shall use progress bar or equivalent control to inform the user about progress of their operation.	

4) User Error Protection

User Error Protection is defined as degree to which a system protects users against making errors.

The following table lists requirements relevant for this characteristic in ACMS.

Table 6-5 ACMS Usability – User Error Protection Requirements

#	Requirement	Notes
UE.1	ACMS shall perform <i>basic validation</i> of each element of data input in a way appropriate to their type (e.g., an amount, a date, a social security number, a credit card number, etc.) in the User Interface.	
UE.2	ACMS shall clearly and consistently identify inputs that failed validation, regardless of whether the validation was performed in the client or in the server.	
UE.3	ACMS shall use a consistent convention for communicating input validation errors to the user, such as error messages in a designated part of the screen or equivalent. This convention shall be capable of presenting and navigating through potentially many error messages rather than a single one.	
UE.4	ACMS shall clearly and consistently distinguish between inputs that are mandatory for the user in question in the context of the current operation, from other inputs that are not mandatory.	
UE.5	ACMS shall use a consistent convention for communicating application- or system-wide conditions or errors to the user, in a way visually distinct from UE.3.	
UE.6	ACMS shall support creating defect reports to application support on conditions encountered during operation of the application, with no effort required from the user to identify context or details of the operation in addition to optional user comments.	

5) User Interface Aesthetics

User Interface Aesthetics is defined as degree to which a user interface enables pleasing and satisfying interaction for the user.

The following table lists requirements relevant for this characteristic in ACMS.

Table 6-6 ACMS Usability – User Interface Aesthetics Requirements

#	Requirement	Notes
UI.1	ACMS shall use differences in elements size, position, font, and/or color to communicate to the user relative importance of data elements presented in the user interface.	
UI.2	Consistency of the presentation of the elements in UI.1 shall be enforced in ACMS by a consistent configurable mechanism, such as Cascading Style Sheets (CSS) or equivalent.	
UI.3	The GUI in ACMS shall be designed using colors that do not create fatigue in average user from a working day spent using the application.	
UI.4	ACMS shall provide GUI personalization capabilities to the users, with respect to color scheme, contrast level, font size (within limits that keep the information readable), and similar elements, as dictated by their productivity or similar requirements.	
UI.5	ACMS shall provide to the User automatically updated, limited (up to 10 elements) list of locations they used in the system.	

6) Accessibility

Accessibility is defined as degree to which a product or system can be used by people with the widest range of characteristics and capabilities to achieve a specified goal in a specified context of use.

The following table lists requirements relevant for this characteristic in ACMS.

Table 6-7 ACMS Usability – Accessibility Requirements

#	Requirement	Notes
UA.1	ACMS shall be compliant with section 508 of the Rehabilitation Act.	
UA.2	ACMS shall be compliant with 2010 American Disabilities Act (ADA) Standards for Accessible Design.	
UA.3	ACMS shall be compliant with the Web Content Accessibility Guidelines (WCAG) 2.0 Recommendation published in 2008 by the Web Accessibility Initiative (WAI).	
UA.4	ACMS web portal shall be compliant with the California policy regarding accessibility in Cal Gov. Code 11135.	
UA.5	Digital artifacts created or managed by ACMS, such as forms or notifications, shall meet accessibility standards as listed in UA.1, UA.2, UA.3, and UA.4.	
UA.6	ACMS shall support generation of letters, such as Notices of Decision, in English and (currently) twelve languages other than English. The list of the supported languages can change in the future, and no assumptions should be made as to whether the supported languages use Latin script or not, or in which direction it is written.	
UA.7	ACMS shall provide <i>intranet</i> web pages in English only.	

UA.8	In case of proper names, ACMS shall support entering and reproduction of identifiers containing non-English Latin script letters, as they appear in legal documents of relevant parties.	
------	--	--

6.2 ACMS System Architectural Considerations

6.2.1 Enterprise Architectural Context

Candidate solutions for ACMS must be considered in context of Service Oriented Architecture (SOA) as described by SOA Reference Architecture (RA) published as part of California Enterprise Architecture Framework (CEAF) 2.0. CEAF 2.0 is compatible with MITA 3.0 and FEAF 2.0.

The following figure provides an overview and background for Architectural Requirements identified in this document.

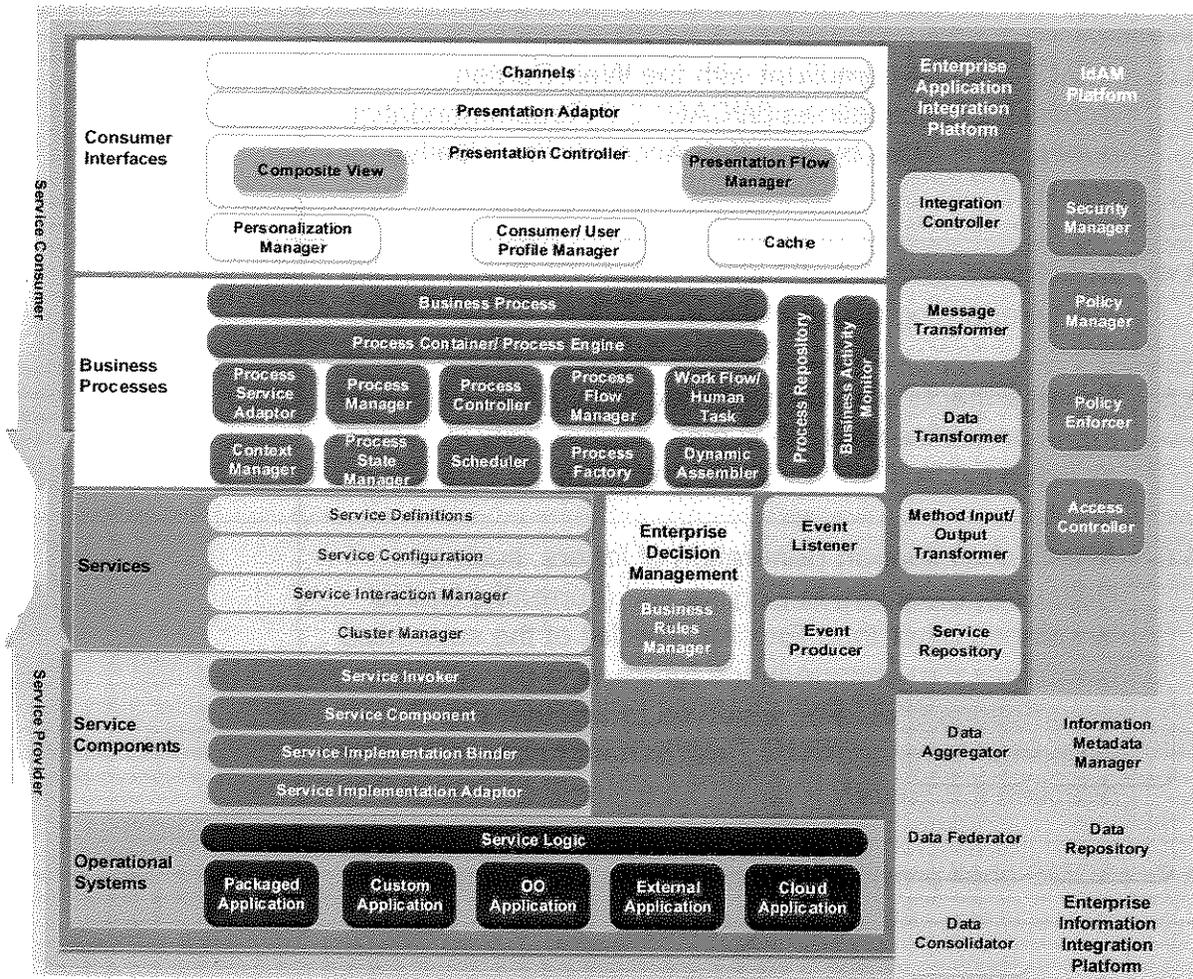


Figure 6-1 CEAF 2.0 SOA Reference Architecture

The above Logical Architecture for SOA has been adopted as the default architectural style in CEAF 2.0. The expected key benefits from adopting it include the following:

- Increased Return on Investment (ROI), by enabling measuring of ROI for automated solutions
- Increased Organizational Agility, or increased ability to respond to change
- Reduced IT Burden – this includes reductions of waste and redundancy, size and operational cost
- Increased Business and Technology Domain Alignment
- Increased Intrinsic Interoperability, or ability to share data in the organization
- Increased Vendor Diversification Options, allowing the organization to pick and choose “best- of-breed” vendor products and technology innovations and use them together within one enterprise.

For details, please refer to Service-Oriented Architecture Reference Architecture, as provided with CEAF 2.0. The document is publicly available from <https://ocio.ca.gov/ea/docs/Service-Oriented-Architecture-SOA-V1.pdf>.

6.2.2 ACMS Technical Capabilities

Business Capabilities and Functional Requirements, as described in sections “ACMS Business Requirements” and “ACMS Functional Requirements”, indicate in turn the need for specific Technical Capabilities, which make practical realization of Business Capabilities feasible.

Technical Capabilities for ACMS can be grouped as follows:

- Business Process (or Workflow-Related) and Business Rules Capabilities
- Security-related Capabilities
- Bi-directional communication Capabilities
- Integration Capabilities
- ACMS-specific Capabilities, including Scheduling Component.

The following figure portrays Technical Capabilities for ACMS and their dependencies.

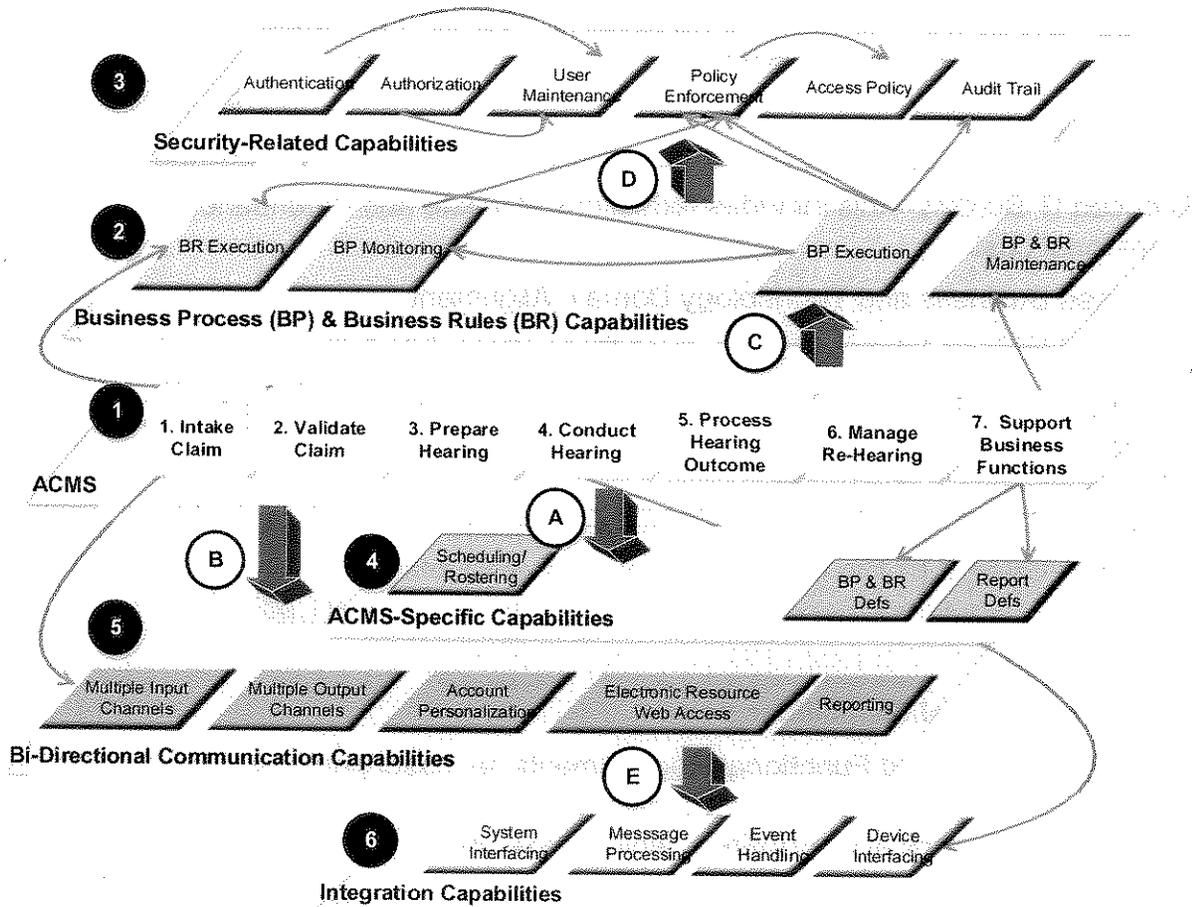


Figure 6-2 Technical Capabilities and Their Dependencies in ACMS

In the above figure, the arrows marked by letters (A to E) indicate dependency relationship between two groups of capabilities. The items identified by digits (1 to 6) are described in the following table.

Note that the order of markers (digits or letters) is not intended to suggest any form of sequence in time.

Table 6-8 Groups of Capabilities for ACMS and Representative FRs

#	Capability Group	Representative Corresponding Functional Requirements
1	ACMS as a whole	Top-Level functional components as specified by the ACMS BRM and BPM

#	Capability Group	Representative Corresponding Functional Requirements
2	Business Process and Business Rules-Related Capabilities	<ul style="list-style-type: none"> ACMS shall use explicit Business Rules when executing Business Processes, including data validations, deciding about flow, or exception handling ACMS shall provide for management of Business Rules, including creating, modifying, and retiring Business Rules ACMS shall allow for declarative definition of sequencing of tasks/operations in order to increase maintainability of the system
3	Security-Related Capabilities	<ul style="list-style-type: none"> ACMS shall provide for identification of all users requesting access to the system ACMS shall protect access to resources and information based on user privileges, including HIPPA-compliant access control
4	ACMS-Specific Capabilities	<ul style="list-style-type: none"> ACMS shall support full lifecycle of Claim-related Information Entities. ACMS shall provide Scheduling and Roster capabilities ACMS shall support ACMS-specific definitions and configurations of workflow, business rules, and reports
5	Bi-Directional Communication Capabilities	<p>ACMS shall support interacting with Claimants using a number of channels, including the following:</p> <ul style="list-style-type: none"> Web Page submission (electronic document(s)) E-mail Letter Phone call Request/meeting with Intake Worker Electronic request from another Application/System
6	Integration Capabilities	<p>ACMS shall support integration and interaction with other application or systems, including electronic transmission of relevant information, in synchronous, asynchronous, or batch modes as appropriate for the given interaction.</p>

6.2.1 Building Blocks for ACMS

Based on the Technical Capabilities (described in section “ACMS Technical Capabilities” above) and taking into account SO Reference Architecture in CEAF 2.0 (referenced in the section “Enterprise Architectural Context”), a blueprint for ACMS logical building blocks can be identified. The blueprint represents overview of logical architectural building blocks for the solution, which means that it is product- and technology-neutral. The following diagram shows identified building blocks for ACMS.

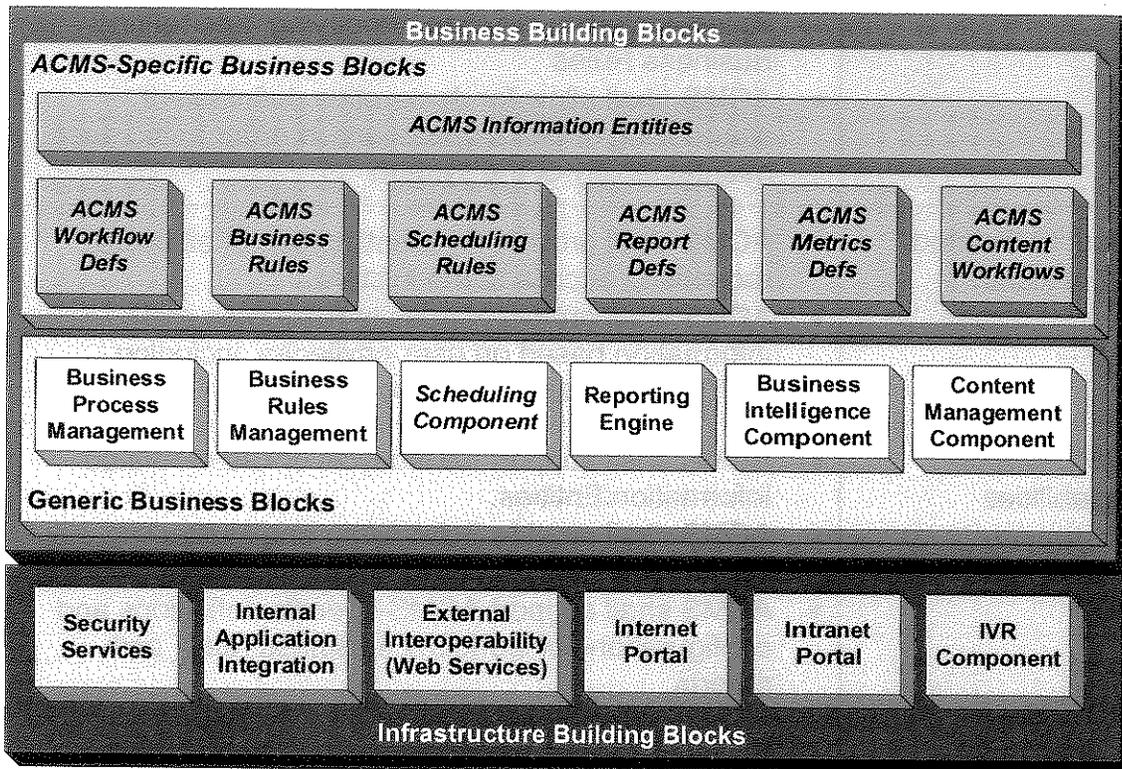


Figure 6-3 Building Blocks for ACMS

The building blocks shown in the above figure are grouped as follows:

- **Infrastructure Building Blocks:** they are required for realization of ACMS Requirements, but they are not necessarily part of the ACMS application proper – for example, Security Services or IVR/Telephony components are typically provided in the target deployment environment rather than as part of ACMS application.
- **Generic Business Building Blocks:** they are required for realization of ACMS Functional Requirements, but they are not required to be aware of or specifically customized to ACMS business domain. Rather, they provide generic business and technical capabilities that can be further customized or configured to reflect specific requirements. For example, Reporting Engine component provides for

generation of pre-defined and ad-hoc reports given report definitions and matching data sources, which are not expected to be ACMS-specific.

- **ACMS-Specific Building Blocks:** they reflect requirements and features specific to ACMS, such as ACMS workflows/business processes definitions, ACMS business rules, ACMS scheduling rules, and similar.

The following table provides a description of the building blocks shown in the above diagram.

Table 6-9 Groups of ACMS Functional Requirements

Building Blocks	Description
AMCS-Specific Business	The group of ACMS-specific building blocks, including the following: <ul style="list-style-type: none"> • Definition of ACMS business processes and workflows • Definition of ACMS business rules (as applied in the processes) • Definition of ACMS-specific scheduling patterns and business rules affecting calendaring and roster (re)generation. • ACMS-specific Information Entities (aka "Object Model")
Generic Business	The group of Generic Business building blocks, including the following: <ul style="list-style-type: none"> • Business Process Engine (capable of executing ACMS business processes) • Business Rule Engine (capable of executing ACMS business rules) • Reporting Engine (capable of producing ACMS-defined reports against ACMS data structures)

Infrastructure	<p>The group of Infrastructure building blocks, including the following:</p> <ul style="list-style-type: none">• Security Services (Identity and Access Management)• External Interoperability (such as Web Services or legacy ETL)• Internal Application Integration (such as ESB-based integration)• Web Portals, for intranet and for internet (may be separated for security reasons)• IVR/Telephony components.
----------------	--

6.3 ACMS Technical Architectural Requirements

The following table describes Technical Architectural Requirements for ACMS.

Table 6-10 ACMS Architectural Requirements

#	Requirement								
TH.1	Architectural Style Requirements for ACMS								
	<table border="1"> <thead> <tr> <th>#</th> <th>Requirement</th> </tr> </thead> <tbody> <tr> <td>TH.1.1</td> <td>ACMS shall be architected in Service Oriented architectural style, in compliance with CEAF 2.0. The overview diagram is provided in Error! Reference source not found.</td> </tr> <tr> <td>TH.1.2</td> <td>ACMS shall be architected using discrete components, each with explicit public API</td> </tr> <tr> <td>TH.1.3</td> <td>All components in ACMS shall be independently testable in unit and regression testing, by using their published APIs.</td> </tr> </tbody> </table>	#	Requirement	TH.1.1	ACMS shall be architected in Service Oriented architectural style, in compliance with CEAF 2.0. The overview diagram is provided in Error! Reference source not found.	TH.1.2	ACMS shall be architected using discrete components, each with explicit public API	TH.1.3	All components in ACMS shall be independently testable in unit and regression testing, by using their published APIs.
#	Requirement								
TH.1.1	ACMS shall be architected in Service Oriented architectural style, in compliance with CEAF 2.0. The overview diagram is provided in Error! Reference source not found.								
TH.1.2	ACMS shall be architected using discrete components, each with explicit public API								
TH.1.3	All components in ACMS shall be independently testable in unit and regression testing, by using their published APIs.								
TH.2	Requirements for Consumer Interfaces Layer in ACMS								
	<table border="1"> <thead> <tr> <th>#</th> <th>Requirement</th> </tr> </thead> <tbody> <tr> <td>TH.2.1</td> <td>ACMS shall provide Presentation Adaptors for multiple <i>input</i> formats and protocols for interactions with human users and other systems, including: <ul style="list-style-type: none"> • HTML form submissions • Email form submissions • PDF form submissions • IVR inputs • Pictures • Audio files </td> </tr> <tr> <td>TH.2.2</td> <td>ACMS shall provide Presentation Adaptors for multiple <i>output</i> formats and protocols for interactions with human users and other systems, including: <ul style="list-style-type: none"> • Web pages • Emails • Document files in standardized formats, such as pdf • IVR outputs • Audio files </td> </tr> <tr> <td>TH.2.3</td> <td>ACMS shall provide Presentation Controller component,</td> </tr> </tbody> </table>	#	Requirement	TH.2.1	ACMS shall provide Presentation Adaptors for multiple <i>input</i> formats and protocols for interactions with human users and other systems, including: <ul style="list-style-type: none"> • HTML form submissions • Email form submissions • PDF form submissions • IVR inputs • Pictures • Audio files 	TH.2.2	ACMS shall provide Presentation Adaptors for multiple <i>output</i> formats and protocols for interactions with human users and other systems, including: <ul style="list-style-type: none"> • Web pages • Emails • Document files in standardized formats, such as pdf • IVR outputs • Audio files 	TH.2.3	ACMS shall provide Presentation Controller component,
#	Requirement								
TH.2.1	ACMS shall provide Presentation Adaptors for multiple <i>input</i> formats and protocols for interactions with human users and other systems, including: <ul style="list-style-type: none"> • HTML form submissions • Email form submissions • PDF form submissions • IVR inputs • Pictures • Audio files 								
TH.2.2	ACMS shall provide Presentation Adaptors for multiple <i>output</i> formats and protocols for interactions with human users and other systems, including: <ul style="list-style-type: none"> • Web pages • Emails • Document files in standardized formats, such as pdf • IVR outputs • Audio files 								
TH.2.3	ACMS shall provide Presentation Controller component,								

#	Requirement														
	capable of managing presentation flow and creating and managing Composite Views.														
TH.2.4	ACMS shall support conversation with users that involves different input and output channels, rather than require limitation to a single channel. For example, Claimants shall be able to interact with ACMS about their Case using any form of interaction available in any sequence allowed by the business process.														
TH.2.5	ACMS shall provide for personalization of presentation for application users.														
TH.2.6	ACMS shall provide for caching of content serviced on-line, including web pages and frequently used digital resources.														
TH.3	Requirements for Business Process Management component in ACMS <table border="1"> <thead> <tr> <th>#</th> <th>Requirement</th> </tr> </thead> <tbody> <tr> <td>TH.3.1</td> <td>ACMS shall use a Business Process Engine (BPE) component, capable of executing Business Process definitions expressed in a standardized domain language.</td> </tr> <tr> <td>TH.3.2</td> <td>The BPE in ACMS shall be capable of retrieving, caching, and executing Business Rules as managed by the Enterprise Decision Management (EDM) component in accordance with the definition of Business Process being executed.</td> </tr> <tr> <td>TH.3.3</td> <td>The BPE in ACMS shall support execution of various types of tasks, including tasks for humans, tasks to be executed by applications or systems, and decision tasks determining the flow of control in the Business Process being executed.</td> </tr> <tr> <td>TH.3.4</td> <td>The BPE in ACMS shall support synchronous and asynchronous execution of tasks.</td> </tr> <tr> <td>TH.3.5</td> <td>The BPE in ACMS shall use a well-specified API for all its functions as required in ACMS.</td> </tr> <tr> <td>TH.3.6</td> <td>The BPE in ACMS shall use a persistent store logically separate from the main transactional data store of ACMS.</td> </tr> </tbody> </table>	#	Requirement	TH.3.1	ACMS shall use a Business Process Engine (BPE) component, capable of executing Business Process definitions expressed in a standardized domain language.	TH.3.2	The BPE in ACMS shall be capable of retrieving, caching, and executing Business Rules as managed by the Enterprise Decision Management (EDM) component in accordance with the definition of Business Process being executed.	TH.3.3	The BPE in ACMS shall support execution of various types of tasks, including tasks for humans, tasks to be executed by applications or systems, and decision tasks determining the flow of control in the Business Process being executed.	TH.3.4	The BPE in ACMS shall support synchronous and asynchronous execution of tasks.	TH.3.5	The BPE in ACMS shall use a well-specified API for all its functions as required in ACMS.	TH.3.6	The BPE in ACMS shall use a persistent store logically separate from the main transactional data store of ACMS.
#	Requirement														
TH.3.1	ACMS shall use a Business Process Engine (BPE) component, capable of executing Business Process definitions expressed in a standardized domain language.														
TH.3.2	The BPE in ACMS shall be capable of retrieving, caching, and executing Business Rules as managed by the Enterprise Decision Management (EDM) component in accordance with the definition of Business Process being executed.														
TH.3.3	The BPE in ACMS shall support execution of various types of tasks, including tasks for humans, tasks to be executed by applications or systems, and decision tasks determining the flow of control in the Business Process being executed.														
TH.3.4	The BPE in ACMS shall support synchronous and asynchronous execution of tasks.														
TH.3.5	The BPE in ACMS shall use a well-specified API for all its functions as required in ACMS.														
TH.3.6	The BPE in ACMS shall use a persistent store logically separate from the main transactional data store of ACMS.														
TH.4	Requirements for Business Rules Management (BRM) Component in ACMS <table border="1"> <thead> <tr> <th>#</th> <th>Requirement</th> </tr> </thead> <tbody> <tr> <td>TH.4.1</td> <td>ACMS shall use a Business Rule Management (BRM) component, capable of storing, retrieving, versioning, and</td> </tr> </tbody> </table>	#	Requirement	TH.4.1	ACMS shall use a Business Rule Management (BRM) component, capable of storing, retrieving, versioning, and										
#	Requirement														
TH.4.1	ACMS shall use a Business Rule Management (BRM) component, capable of storing, retrieving, versioning, and														

#	Requirement								
	testing Business Rules.								
TH.4.2	The BRM in ACMS shall support the Event-Condition-Action (ECA) model of business rules.								
TH.4.3	The BRM in ACMS shall support building of aggregated Conditions from simpler Conditions, without resorting to programming.								
TH.4.4	The BRM in ACMS shall support creation of new Business Rule instances from available Event, Condition, and Action building blocks, without resorting to programming.								
TH.4.5	The BRM in ACMS shall use a well-specified API for all its functions as required in ACMS.								
TH.4.6	The BRM in ACMS shall use a persistent store logically separate from the main transactional data store of ACMS.								
TH.5	Requirements for Component/Application Integration components in ACMS								
	<table border="1"> <thead> <tr> <th>#</th> <th>Requirement</th> </tr> </thead> <tbody> <tr> <td>TH.5.1</td> <td>ACMS shall use a well-defined and robust mechanism for integrating internal components of the solution and for communicating with other applications within the department, such as Service Bus with explicit API and a standardized mechanism for interfacing with it from the implementation stack (such as JMS in case of JVM-based stack)</td> </tr> <tr> <td>TH.5.2</td> <td>ACMS shall use ETL and/or Web Services for interoperability with external applications or systems (outside organizational firewall), depending on the capabilities of the other system and the relevant roadmaps.</td> </tr> <tr> <td>TH.5.3</td> <td>Invoking operations involving external interoperability shall involve in ACMS access control and audit functions.</td> </tr> </tbody> </table>	#	Requirement	TH.5.1	ACMS shall use a well-defined and robust mechanism for integrating internal components of the solution and for communicating with other applications within the department, such as Service Bus with explicit API and a standardized mechanism for interfacing with it from the implementation stack (such as JMS in case of JVM-based stack)	TH.5.2	ACMS shall use ETL and/or Web Services for interoperability with external applications or systems (outside organizational firewall), depending on the capabilities of the other system and the relevant roadmaps.	TH.5.3	Invoking operations involving external interoperability shall involve in ACMS access control and audit functions.
#	Requirement								
TH.5.1	ACMS shall use a well-defined and robust mechanism for integrating internal components of the solution and for communicating with other applications within the department, such as Service Bus with explicit API and a standardized mechanism for interfacing with it from the implementation stack (such as JMS in case of JVM-based stack)								
TH.5.2	ACMS shall use ETL and/or Web Services for interoperability with external applications or systems (outside organizational firewall), depending on the capabilities of the other system and the relevant roadmaps.								
TH.5.3	Invoking operations involving external interoperability shall involve in ACMS access control and audit functions.								
TH.6	Requirements for Security Services in ACMS								
	<table border="1"> <thead> <tr> <th>#</th> <th>Requirement</th> </tr> </thead> <tbody> <tr> <td>TH.6.1</td> <td>ACMS shall use Authentication Services as components separately deployable from the ACMS proper, and preferably interface to the Identity Provider already available in the organization.</td> </tr> <tr> <td>TH.6.2</td> <td>ACMS shall use Authorization Services (and Access Controller) as components separately deployable from the ACMS proper,</td> </tr> </tbody> </table>	#	Requirement	TH.6.1	ACMS shall use Authentication Services as components separately deployable from the ACMS proper, and preferably interface to the Identity Provider already available in the organization.	TH.6.2	ACMS shall use Authorization Services (and Access Controller) as components separately deployable from the ACMS proper,		
#	Requirement								
TH.6.1	ACMS shall use Authentication Services as components separately deployable from the ACMS proper, and preferably interface to the Identity Provider already available in the organization.								
TH.6.2	ACMS shall use Authorization Services (and Access Controller) as components separately deployable from the ACMS proper,								

#	Requirement	
		and preferably interface to relevant infrastructure components already available in the organization.
	TH.6.3	ACMS shall use Access Control to validate execution requests for Business Processes (Workflows) and their parts (Tasks or Activities), rather than solely for perimeter security.
	TH.6.4	ACMS shall hardcode internally no operations for no user role.

6.4 ACMS Technical Requirements by Characteristic

Technical Requirements are broken in this section into the following groups: Performance, Compatibility, Reliability, Security, Maintainability, and Portability requirements. The subsections that follow discuss corresponding group of requirements.

6.4.1 Performance Requirements

Performance requirements identify performance relative to the amount of resources used under stated conditions. In case of ACMS, Performance Requirements are stated in context of capacity assumptions for ACMS (*Table 6-12 ACMS Capacity Assumptions*) and in terms of main ACMS transaction types and their performance goals, as measured from the point of view of the end user on the intranet (*Table 6-13 ACMS Transaction Types and their Performance Goals*). Note that given the variation in quality of external access, specifying performance targets for intranet users is more productive than for external/internet users.

The following table summarizes Performance Requirements for ACMS.

Table 6-11 ACMS Performance Requirements

#	Requirement	Notes
TP.1	ACMS shall satisfy capacity assumptions as described in <i>Table 6-12 ACMS Capacity Assumptions</i>	
TP.2	ACMS shall satisfy end user performance times as described in <i>Table 6-13 ACMS Transaction Types and their Performance Goals</i>	
TP.3	ACMS shall be capable to scale (vertically and/or horizontally) to meet future performance and capacity requirements.	

The following table provides Capacity Assumptions for ACMS.

Table 6-12 ACMS Capacity Assumptions

#	Parameter	Value	Notes
TA.1	Total number of intranet ACMS users	1000	Current estimate from Business
TA.2	Number of internet ACMS users visiting ACMS portal, daily	5000	Initial estimate based on the number of hearing scheduled
TA.3	Number of new Claims, daily	2000	Estimate based on the number of hearing scheduled
TA.4	Number of Hearing scheduled, daily	600	Estimate of current loads
TP.5	Number of Hearing re-scheduled, daily	100	Estimate based on current rates

The table below identifies main types of technical transactions for ACMS and respective percentile performance goals.

Table 6-13 ACMS Transaction Types and their Performance Goals

#	Transaction Type	95 th Percentile Value	99 th Percentile Value	Notes
TT.1	Time to fully render a web page for which information is obtained using Intranet read access to ACMS persistence store	1 sec	2 sec	
TT.2	Time to commit single	1 sec	2 sec	

#	Transaction Type	95 th Percentile Value	99 th Percentile Value	Notes
	table write for end user on Intranet			
TT.3	Time to complete multi-parameter search on non-multimedia data with a result set not bigger than 50 elements	2 sec	3 sec	Intranet
TT.4	Time to complete multi-parameter search on multimedia meta-data	2 sec	5 sec	Intranet; involves searches on data about digital documents, including recordings, but not their content
TT.5	Time to complete substring search on pdf file content	3 sec	5 sec	Intranet
TT.6	Time to generate a single page document to application viewer	2 sec	5 sec	Intranet
TT.7	Time to print of a single page document on a printer	10 sec	30 sec	Intranet, directly connected printer or empty printing queue.

6.4.2 Compatibility Requirements

Compatibility requirements determine degree to which a system or component can exchange information with other products, systems or components, and/or perform its required functions, while sharing the same hardware or software environment. Compatibility requirements usually fall into two groups: co-existence requirements and interoperability requirements.

The following table summarizes Compatibility Requirements for ACMS.

Table 6-14 ACMS Compatibility Requirements

#	Requirement	Notes
TC. 1	Operating System compatibility: ACMS shall be compatible with Windows Server, Linux or AIX operating systems.	
TC. 2	Programming stack compatibility: ACMS shall be compatible with a standard library stack, such as Microsoft's .Net or JVM.	
TC. 3	Web browser compatibility: ACMS shall be compatible with a standard web browser, such as Firefox or Internet Explorer.	
TC. 4	For persisting transactional data, ACMS shall use a Relational Database Management System (RDBMS).	
TC. 5	For interoperability with other systems located behind a firewall, ACMS shall be capable of using standard Web Services, including WSDL, WS-I Basic Profile 2.0, WS-Security, SOAP, XML/XSD	
TC. 7	For interactions with intranet systems and components not requiring a firewall, ACMS shall use applicable standard APIs to messaging middleware, such as JMS in case of JVM-based stack.	

6.4.3 Reliability Requirements

Reliability requirements determine degree to which a system, product or component performs specified functions under specified conditions for a specified period of time. Limitations in reliability are due to faults in requirements, design and implementation, or due to contextual changes. The following table summarizes Reliability Requirements for ACMS.

Table 6-15 ACMS Reliability Requirements

#	Requirement	Notes
TR. 1	Maturity requirement: under normal operating conditions, ACMS shall not produce faults or manifest defects that will make it impossible for any of the groups of ACMS users to perform their functions.	
TR. 2	Intranet Availability requirement: ACMS shall be available, as a minimum, to its intranet users during the working days from 5 am to 7 pm.	
TR. 3	Internet Availability requirement: ACMS shall be available to its internet users every day, with a permissible scheduled maintenance break in availability from 2 am to 4 am.	
TR. 4	Fault Tolerance requirement: ACMS shall be capable to continue performing its functions in presence of isolated hardware faults, such as faults in a single network card, storage device, CPU, RAM, or power supply.	
TR. 5	Recoverability requirement: ACMS shall support resumption of transaction in progress upon fail-over.	
TR. 6	ACMS shall support and comply with State-mandated data backup and restore procedures.	

6.4.4 Security Requirements

Security requirements determine degree to which a product or system protects information and data so that persons or other products or systems have the degree of data access appropriate to their types and levels of authorization. Security requirements include requirements pertaining to Confidentiality, Integrity, Non-Repudiation, Accountability, Compliance with standards and regulations.

The following table summarizes Security Requirements for ACMS.

Table 6-16 ACMS Security Requirements

#	Requirement	Notes
TS. 1	Data Confidentiality: ACMS shall only authorized parties to access information in the system in accordance with security policy.	
TS. 2	Standard and Guidelines Compliance: ACMS shall comply with all standards and guidelines listed in <i>Table 6-17 Applicable Information Security Standards and Guidelines</i>	
TS. 3	Process Integrity: ACMS shall prevent all access to any business processes or its parts (tasks or activities) that are not authorized by the roles of the user or the system requesting that access.	
TS. 4	Non-repudiation: ACMS shall populate audit logs in accordance with security policy, in a way that makes it impossible for a user or a party to repudiate the recorded event.	
TS. 5	Accountability: ACMS shall enable tracing of all audited events in the system to a single source, user or party.	
TS. 6	Authenticity: ACMS shall support user identity corroboration using external (with respect to ACMS) Identity Providers.	

Information Security standards and guidelines applicable to ACMS are listed in the table below.

Table 6-17 Applicable Information Security Standards and Guidelines

Standard or Guideline	Description
CDSS ISP	CDSS Information Security Program
FIPS-140	Security Requirements for Cryptographic Modules (FIPS Publication 140-2).
FIPS-199	Standards for Security Categorization of Federal Information and Information Systems (Federal Information and Processing Standards (FIPS) Publication 199).
FIPS-200	Minimum Security Requirements for Federal Information and Information Systems (FIPS Publication 200).
NIST-800	Recommended Security Controls for Federal Information Systems (National Institute of Standards and Technology (NIST), Special Publication 800-53).
SAM 5300	the state's information security program guide developed by the California Office of Information Security

6.4.5 Maintainability Requirements

Maintainability requirements specify the degree to which a system can be modified by the intended maintainers, typically in response to changing business requirements, technology improvements, or infrastructure modifications.

The following table summarizes Maintainability Requirements for ACMS.

Table 6-18 ACMS Maintainability Requirements

#	Requirement	Notes
TM.1	(Modularity1) ACMS shall be designed to support independently deployable modules that, by interacting one with another using well-defined Application Programming Interfaces (APIs), provide required functionality.	
TM.2	(Modularity2) ACMS' documentation shall include specification of APIs for all modules comprising the solution, automatically generated from the source code using standard applicable tools.	
TM.3	(Modularity3) ACMS' documentation shall include specification of dependencies among solution modules and between the modules and supporting libraries, automatically generated from the binaries or the source code using standard applicable tools.	
TM.4	(Reusability1) ACMS shall be designed for reuse of its components, such that when the component API is used as specified, non-ACMS components can successfully use it.	
TM.5	(Reusability2) ACMS' documentation shall include identification of all components that cannot be reused even when their defined API is correctly invoked.	
TM.6	(Analyzability) ACMS shall be designed to support analyzability of the solution, which makes it possible to assess impact of changes in one of ACMS components	

#	Requirement	Notes
	on remaining components.	
TM.7	(Modifiability1) ACMS shall be designed to support modifiability of the solution, which makes it possible to modify the solution in order to meet new or modified requirements without introducing defects or degrading existing product quality.	
TM.8	(Modifiability2) ACMS shall be designed and constructed to support modifiability of business processes, workflows, and business rules by modification of configuration, without requiring programmatic changes.	
TM.9	(Testability1) ACMS shall be designed and constructed to support mechanized testability of the solution, including unit testing and regression testing.	
TM.10	(Testability2) In case of components supplied with their source code, ACMS shall provide unit tests for these components in source and shall provide for automated execution of the unit tests, including automated measurement of coverage of the testing so executed.	

6.4.6 Portability Requirements

Portability requirements determine the degree of effectiveness and efficiency with which a system, product or component can be transferred from one hardware, software or other operational or usage environment to another. Portability comprises adaptability, installability, and replaceability. The following table summarizes Portability Requirements for ACMS.

Table 6-19 ACMS Portability Requirements

#	Requirement	Notes
TO.1	Operating System portability: ACMS shall be deployable on one or more of the following operating systems: Windows Server, Linux or AIX operating systems.	

#	Requirement	Notes
TO.2	Programming stack adaptability: implementation of ACMS shall be portable within technology ecosystem, such as Microsoft's .Net or JVM, but it is not expected to be portable across technology ecosystems, e.g. from the .Net stack to JVM-based stack.	
TO.3	Web browser portability: ACMS shall be compatible with a standard web browser, such as Firefox or Internet Explorer, as available on the client platform.	
TO.4	Automated Product Installability: ACMS shall be installable in the target environment using automated procedures and without requiring manual interventions during the installation.	
TO.5	Automated Patch Installability: Patches and updates to ACMS shall be installable in the target environment using automated procedures without requiring manual patching.	
TO.6	Cloud Deployability: ACMS shall be deployable to the Cloud, at the IaaS (Infrastructure-as-a-Service) service level at a minimum.	
TO.7	Cloud Replaceability: Before being deployed to the Cloud, ACMS shall provide a valid exist strategy from the target cloud environment.	

7. APPENDICES

7.1 Appendix A. Descriptions of Technical Attributes in Technical Requirements

The following table describes technical attributes used for identification of Technical Requirements. The definitions are adopted from the ISO 25010 standard.

Table 7-1 Descriptions of Technical Attributes in Technical Requirements.

Attribute	Sub-Attribute	Description
Functional Suitability		Degree to which a product or system provides functions that meet stated and implied needs when used under specified conditions
Functional Suitability	<i>Functional Completeness</i>	Degree to which the set of functions covers all the specified tasks and user objectives.
Functional Suitability	<i>Functional Correctness</i>	Degree to which a product or system provides the correct results with the needed Degree of precision
Functional Suitability	<i>Functional Appropriateness</i>	Degree to which the functions facilitate the accomplishment of specified tasks and objectives.
Performance Efficiency		Performance relative to the amount of resources used under stated conditions.
Performance Efficiency	<i>Time behavior</i>	Degree to which the response and processing times and throughput rates of a product or system, when performing its functions, meet requirements.
Performance Efficiency	<i>Resource utilization</i>	Degree to which the amounts and types of resources used by a product or system, when performing its functions, meet requirements.
Performance Efficiency	<i>Capacity</i>	Degree to which the maximum limits of a product or system parameter meet requirements.

Attribute	Sub-Attribute	Description
Compatibility		Degree to which a product, system or component can exchange information with other products, systems or components, and/or perform its required functions, while sharing the same hardware or software environment.
Compatibility	<i>Co-existence</i>	Degree to which a product can perform its required functions efficiently while sharing a common environment and resources with other products, without detrimental impact on any other product
Compatibility	<i>Interoperability</i>	Degree to which two or more systems, products or components can exchange information and use the information that has been exchanged.
Usability		Degree to which a product or system can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use.
Usability	<i>Appropriateness Recognizability</i>	Degree to which users can recognize whether a product or system is appropriate for their needs.
Usability	<i>Learnability</i>	Degree to which a product or system can be used by specified users to achieve specified goals of learning to use the product or system with effectiveness, efficiency, freedom from risk and satisfaction in a specified context of use
Usability	<i>Operability</i>	Degree to which a product or system has attributes that make it easy to operate and control.
Usability	<i>User error protection</i>	Degree to which a system protects users against making errors.
Usability	<i>User interface aesthetics</i>	Degree to which a user interface enables pleasing and satisfying interaction for the user.

Attribute	Sub-Attribute	Description
Usability	Accessibility	Degree to which a product or system can be used by people with the widest range of characteristics and capabilities to achieve a specified goal in a specified context of use.
Reliability		Degree to which a system, product or component performs specified functions under specified conditions for a specified period of time. Limitations in reliability are due to faults in requirements, design and implementation, or due to contextual changes.
Reliability	Maturity	Degree to which a system, product or component meets needs for reliability under normal operation.
Reliability	Availability	Degree to which a system, product or component is operational and accessible when required for use.
Reliability	Fault tolerance	Degree to which a system, product or component operates as intended despite the presence of hardware or software faults.
Reliability	Recoverability	Degree to which, in the event of an interruption or a failure, a product or system can recover the data directly affected and re-establish the desired state of the system.
Security		Degree to which a product or system protects information and data so that persons or other products or systems have the degree of data access appropriate to their types and levels of authorization.
Security	Confidentiality	Degree to which a product or system ensures that data are accessible only to those authorized to have access.

Security	<i>Integrity</i>	Degree to which a system, product or component prevents unauthorized access to, or modification of, computer programs or data.
Security	<i>Non-repudiation</i>	Degree to which actions or events can be proven to have taken place, so that the events or actions cannot be repudiated later.
Security	<i>Accountability</i>	Degree to which the actions of an entity can be traced uniquely to the entity.
Security	<i>Authenticity</i>	Degree to which the identity of a subject or resource can be proved to be the one claimed.
Maintainability		Degree of effectiveness and efficiency with which a product or system can be modified by the intended maintainers.
Maintainability	<i>Modularity</i>	Degree to which a system or computer program is composed of discrete components such that a change to one component has minimal impact on other components.
Maintainability	<i>Reusability</i>	Degree to which an asset can be used in more than one system, or in building other assets.
Maintainability	<i>Analyzability</i>	Degree of effectiveness and efficiency with which it is possible to assess the impact on a product or system of an intended change to one or more of its parts, or to diagnose a product for deficiencies or causes of failures, or to identify parts to be modified.
Maintainability	<i>Modifiability</i>	Degree to which a product or system can be effectively and efficiently modified without introducing defects or degrading existing product quality.

Maintainability	<i>Testability</i>	Degree of effectiveness and efficiency with which test criteria can be established for a system, product or component and tests can be performed to determine whether those criteria have been met.
Portability		Degree of effectiveness and efficiency with which a system, product or component can be transferred from one hardware, software or other operational or usage environment to another.
Portability	<i>Adaptability</i>	Degree to which a product or system can effectively and efficiently be adapted for different or evolving hardware, software or other operational or usage environments.
Portability	<i>Installability</i>	Degree of effectiveness and efficiency with which a product or system can be successfully installed and/or uninstalled in a specified environment.
Portability	<i>Replaceability</i>	Degree to which a product can replace another specified software product for the same purpose in the same environment.

