For instructions on using this template, please see Notes to Author/Template Instructions on page 17. Notes on accessibility: This template has been tested and is best accessible with JAWS 11.0 or higher. For questions about using this template or to request changes to the template, please contact CMS IT Governance (IT\_Governance@cms.hhs.gov).



<Project Name/Acronym>

# Requirements Document

Version X.X

MM/DD/YYYY

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## Introduction

### Purpose

This document provides all requirements that the <project name (acronym)> will be responsible for implementing. This document lists the business requirements, business rules, user requirements, and functional/nonfunctional requirements for the project. It also contains use case scenarios to help clarify the process required for the project.

### Document Management

The requirements in this Requirements Document (RD) shall be traced to the appropriate deliverables in the development and testing phases to ensure that all requirements are properly implemented and tested.

### Intended Audience

The target audience for this RD includes business, technical, governance, and project management stakeholders. Specific users shall include software or system developers and testers.

## Overview

### Business Need

Instructions: Provide a detailed explanation of the business need/issue/problem that the requested project will address, including any legislative mandates, regulations, etc. Include any expected benefits from the investment of organizational resources into the project. Please be sure to indicate clearly relevant deadlines (e.g., statutory deadlines that CMS must meet).

### Goals/Scope

Instructions: Enter a detailed description of the purpose, goals, and scope of the proposed project. Detail expected short-term, long-term, and operational goals and objectives.

Enter a detailed explanation of how the proposed project aligns with, or advances, organizational goals and objectives, and avoids duplication of any enterprise architecture components.

### Measures of Success

Instructions: List the measures of success for the project. See Section 3.1.3 of the CMS Requirements Writer’s Guide for additional guidance.

### Stakeholders

Instructions: Provide a description of the current and/or future stakeholders (e.g., identities of the users, as well as their interactions with the project and their functional user roles). See Section 3.1.4 of the CMS Requirements Writer’s Guide for additional guidance.

### Project Priorities

Instructions: Identify the priority level established by the Business Owner for each of the four product quality dimensions of the project should a choice need to be made. See Section 3.1.7 of the CMS Requirements Writer’s Guide for additional guidance.

There is always an inherent conflict between scope, available budget, schedule, and allowable defects. Table 1 - Project Priorities identifies the project priorities the <Business Owner> established to help the project team determine what is most important, should a choice need to be made.

Table 1 - Project Priorities

| Product Quality Dimension | Priority Level |
| --- | --- |
| Scope (Features) | <High, Medium, or Low> |
| Schedule | <High, Medium, or Low> |
| Defects | <High, Medium, or Low> |
| Resources (Manpower, Budget) | <High, Medium, or Low> |

### Project Diagrams

Instructions: Provide relevant context diagrams for the project/system, which may include: work context diagram, project/system diagram, and any additional diagrams (as necessary).

#### Business Process Models

Instructions: Provide business process model diagram(s) of the underlying business processes the project/system will support.

#### Work Context Diagram

Instructions: Provide a context diagram of the project/system.

The figure below shows the work context diagram for the <project/system>. The work context diagram shows all entities that will have knowledge of the <project/system> and that will interact with it. The direction of the arrows indicates which entity will initiate the event. After an event is initiated, there is usually two-way communication. The work context diagram’s arrows simply show who begins the events.

#### Other Diagrams/Artifacts

Instructions: Provide supporting information regarding the project/system requirements. This information can include screen shots, text to display, etc. (Optional)

## Assumptions/Constraints/Risks

### Assumptions

Instructions: Describe any assumptions or dependencies regarding the requirements. The assumptions can be divided into “General Assumptions”, “Technical Assumptions”, and “Development, Test and Production Assumptions”. If none exist, state: “There were no assumptions identified for this project.” See Section 3.1.5 of the CMS Requirements Writer’s Guide for additional guidance.

The following assumptions guided the identification and development of the requirements stated in this document. These assumptions are intended to promote mutual understanding, partnership, and quality communication between the Centers for Medicare & Medicaid Services (CMS) and the project team.

### Constraints

Instructions: Describe any limitations or constraints that have a significant impact on the requirements or the system design. If none exist, state: “There were no constraints identified for this project.” See Section 3.1.5 of the CMS Requirements Writer’s Guide for additional guidance.

The following constraints exist for this project. These constraints may prevent or restrict reaching the desired results (e.g., satisfying requirements, meeting project goals and priorities, achieving measures of success, etc.) stated in this document.

### Risks

Instructions: Describe any risks associated with the requirements and proposed mitigation strategies. If none exist, state: “There were no risks identified for this project.” See Section 3.1.6 of the CMS Requirements Writer’s Guide for additional guidance.

The following risks can create issues for the project. These risks may create issues that have an uncertain effect on the project which in turn effect achieving the desired results (e.g., satisfying requirements, meeting project goals and priorities, achieving measures of success, etc.) stated in this document.

## Business Requirements & Rules

Instructions: Document the business requirements and business rules for the project. See Section 3.2 of the CMS Requirements Writer’s Guide for guidance.

### Business Process: <Business Process Title>

Instructions: The “Business Process Title” included in the section heading is typically the name of the BPM where these requirements are drawn from. Insert your business requirements and business rules as shown in the examples below. If none exist write: “No business requirements exist for this section.” Business rules should be grouped with their parent requirement.

#### <Stakeholder 1> Business Requirements

Instructions: Document the business requirements that describe the capability required to meet the project/task objective. They do NOT include any reference to the system being built. See Section 3.2, Appendices B, C, and D of the CMS Requirements Writer’s Guide for additional guidance.

The <Stakeholder 1> shall…

##### Business Rule: <Business Rule Goes Here>

Instructions: Document the business rule here as appropriate.

##### Business Rule: <Business Rule Goes Here>

Instructions: Document the business rule here as appropriate.

#### <Stakeholder 2> Business Requirements

The <Stakeholder 1> shall…

##### Business Rule: <Business Rule Goes Here>

Instructions: Document the business rule here as appropriate.

##### Business Rule: <Business Rule Goes Here>

Instructions: Document the business rule here as appropriate.

## Global Requirements

Instructions: Insert any user, functional, and nonfunctional requirements that are applicable across all user domains of interest. Nonfunctional Requirements related to security, privacy, records management, and Section 508 are suitably placed here. Group the requirements by type or with scenarios as applicable (e.g., standards, performance, authentication, etc.). See Sections 3.3.2, 3.3.4, and 4 of the CMS Requirements Writer’s Guide for guidance.

### Global Standards

#### General

The system shall…

#### Design

The system shall…

#### Performance Requirements/Performance Engineering

Instructions: Performance Requirements are mandatory and must include (at a minimum) each business process, SLAs/response times for each process, and transactions per hour per business process. For further information, see Section 2.0 of the CMS Performance Test Plan and Results Template for guidance on defining Performance Requirements.

The system shall…

#### Security

The system shall…

#### Privacy

The system shall…

#### Section 508

The system shall…

#### Records Management

Instructions: Describe where the system’s data will reside and identify any data exchanges that may occur.

Inputs: Identify all data (as well as the format of the data—paper, manual input, electronic data) supplied to the system as well as who/what is supplying the data.

Provide instructions on what happens to the manual/electronic inputs after they are entered into the master file/database and are verified.

Master Files: Provide a detailed description of the data maintained in the system/database.

Provide detailed instructions for the retention and disposition of this data (where will the data be maintained, when will the data be deleted or destroyed).

Outputs: List all reports, data sharing with other agencies/CMS systems, etc.

Provide instructions for how long the reports are needed for agency business and when they should be destroyed/deleted.

Is this system replacing a paper-based records system or an existing electronic system? If electronic, has the migration of the legacy data been addressed?

The system shall…

#### Archiving Requirements

The system shall…

#### Reporting Requirements

The system shall…

#### Other Non-Functional Requirements

The system shall…

## <User 1> User Requirements

Instructions: The user may be a system user, system influencer, another software system, or hardware device that interacts with the system to achieve the goal of the user requirement. See Section 3.3.2 of the CMS Requirements Writer’s Guide for additional guidance. The following subsections should be repeated as necessary and appropriately numbered for all documented user requirements.

### <User Requirement Summary>

Instructions: The “User Requirement Summary” should be a very brief statement of the complete user requirement. For example, if the complete user requirement is “The system shall allow the user to maintain roles”, the user requirement summary statement might be “Maintain Roles”. Definition of the user requirement (UR) should describe the capability required of the project/system to meet the project/task objective. See Section 3.3.2 and Appendices B, C, and D of the CMS Requirements Writer’s Guide for additional guidance.

#### Associated Business Requirement

Instructions: Identify the associated business requirements to this UR.

#### Requirement Source

Instructions: Identify the source of this UR. (Optional)

#### Priority

Instructions: Identify the UR as “High” if it is essential to the end product; “Medium” if it is desirable, but not essential; and “Low” if it is optional. (Optional)

#### Purpose

Instructions: Provide a brief rationale for the UR. (Optional)

#### Requirement Context Diagram

Instructions: Insert a small portion of the BPM or a flow chart that shows the relationship between this UR and any preceding or following URs. (Optional)

#### Event Diagram

Instructions: Insert flowchart(s) that diagram the relationship between this UR and other URs. (Optional)

#### User Level Requirements

Instructions: Insert any functional/nonfunctional requirements that are applicable across all scenarios for this UR. (Optional)

#### <Given Functional Scenario Name>

Instructions: A separate scenario or use case shall be provided for all possible scenarios. The primary scenario is used to describe the expected and most typical flow of events the actor will navigate through. Insert the name of the functional scenario as the heading and provide a brief description. See Section 3.3.3 of the CMS Requirements Writer’s Guide for additional guidance on documenting scenarios.

##### Scenario Flowchart/Use Case Diagram

Instructions: Insert scenario flowchart or use case diagram. (Optional)

##### Precondition

Instructions: Describe what state the system must be in before the scenario/use case can start. (Optional)

##### Trigger

Instructions: Specify the event that results in starting the scenario/use case. (Optional)

##### Expected Result

Instructions: Describe what state the system must be in when the scenario/use case ends. (Optional)

##### Steps

Instructions: Describe the basic steps in the scenario/use case. The basic flow of events is a series of declarative statements describing the steps of a scenario/use case -- the basic activities (i.e., behaviors and interactions) that occur during the dialogue between the actor and the scenario/use case including how and when the scenario/use case ends. (Optional)

“Include Use Case” option: This option allows the current use case to access a set of behaviors defined in another use case (Include Use Case). This option is a good mechanism for capturing and representing common behaviors and/or functionality in one place that can be used by multiple use cases eliminating redundancy within the requirements/design document. Include Use Cases are simply use cases that are referenced within the current use case. The behaviors in the Include Use Case are executed when the Include Use Case step is reached in the basic flow of events. The “Include Use Case” option helps to minimize the number of changes across use cases by isolating common behaviors in a single use case. After the set of behaviors in the Include Use Case has been executed, control is returned back to the next step in the basic flow of events.

For Example, Step 3 of the basic flow of events could be: Include Use Case “Vendor Look Function”, with a brief description of the functionality of the Include Use Case also provided.

“Extension Use Case” option: This option allows the user to use “If” conditional statements in one or more of the steps in the basic flow of events allowing the current use case to access a set of behaviors defined in another use case if certain conditions are met. This use case would perform a series of functions. After the set of functions in the referenced Extension Use Case has been executed, control is returned back to the next step in the basic flow of events.

For Example, Step 5 of the basic flow of events could be: If the order status has been confirmed, execute Extension Use Case “Verification”, with a brief description of the functionality of the Extension Use Case also provided.

Table 2 - <Scenario/Use Case Name> Steps

| Step # | Description |
| --- | --- |
|  | Example: The user … (trigger). This is the first step. |
|  | Example: The system will… |
|  | Example: Include Use case <name>. Describe the functionality of the Include Use Case. |
|  | Example: The system will… |
|  | Example: If the order status has been confirmed, execute Extension Use Case <name>. Describe the functionality of the Extension Use Case. |
|  | Example: The system … Explain how and when the use case ends. This is the last step culminating in the Expected Result. |

##### Scenario/Use Case Functional & Nonfunctional Requirements

Instructions: Document future-tense “shall” statements that describe what must be done in order to satisfy the business or user requirements. Optional pass/fail statements for each requirement may be included for clarity. See Sections 3.3.4, 3.3.5, and Appendices B, C, and D of the CMS Requirements Writer’s Guide for additional guidance.

The system shall…

Pass/Fail Statement:

The system shall…

Pass/Fail Statement:

#### Alternate Scenario/Use Case #1 - <Scenario/Use Case Name>

Instructions: The primary scenario/use case above is the one in which all the steps succeed. The other paths that lead to success are identified as scenarios/use cases. The paths that lead to goal abandonment are alternate scenarios/use cases. Repeat the following subsections for each alternate scenario/use case. See Section 3.3.3 of the CMS Requirements Writer’s Guide for additional guidance.

##### Precondition

Instructions: Describe what state the system must be in before the alternate scenario/use case can start. (Optional)

##### Trigger

Instructions: Specify the event that results in starting the alternate scenario/use case. (Optional)

##### Expected Result

Instructions: Describe what state the system must be in when the alternate scenario/use case ends. (Optional)

##### Steps

Instructions: Describe the basic steps in the alternate scenario/use case. (Optional)

Table 3 - <Scenario/Use Case Name> Steps

| Step # | Description |
| --- | --- |
|  | Example: The user … (trigger). This is the first step. |
|  | Example: The system will… |
|  | Example: Include Use case <name>. Describe the functionality of the Include Use Case. |
|  | Example: The system will… |
|  | Example: If the order status has been confirmed, execute Extension Use Case <name>. Describe the functionality of the Extension Use Case. |
|  | Example: The system … Explain how and when the use case ends. This is the last step culminating in the Expected Result. |

##### Scenario/Use Case Functional & Nonfunctional Requirements

Instructions: Document future-tense “shall” statements that describe what must be done in order to satisfy the business or user requirements. Optional pass/fail statements for each requirement may be included for clarity. See Sections 3.3.4, 3.3.5, and Appendices B, C, and D of the CMS Requirements Writer’s Guide for additional guidance.

The system shall…

Pass/Fail Statement:

The system shall…

Pass/Fail Statement:

## <User 2> User Requirements

### <User Requirement Summary>

Instructions: The subsections documented above in Section 7 should be repeated as necessary and appropriately numbered for this user. If a user requirement or scenario already described above is repeated for this user, use an appropriate reference to avoid duplicating the requirement(s).

Appendix A: Record of Changes

Instructions: Provide information on how the development and distribution of the Requirements Document will be controlled and tracked. Use the table below to provide the version number, the date of the version, the author/owner of the version, and a brief description of the reason for creating the revised version.

Table 4 - Record of Changes

| Version Number | Date | Author/Owner | Description of Change |
| --- | --- | --- | --- |
| <X.X> | <MM/DD/YYYY> | CMS | <Description of Change> |
| <X.X> | <MM/DD/YYYY> | CMS | <Description of Change> |
| <X.X> | <MM/DD/YYYY> | CMS | <Description of Change> |

Appendix B: Glossary

Instructions: Provide clear and concise definitions for terms used in this document that may be unfamiliar to readers of the document. Terms are to be listed in alphabetical order.

Table 5 - Glossary

| Term | Acronym | Definition |
| --- | --- | --- |
| <Term> | <Acronym> | <Definition> |
| <Term> | <Acronym> | <Definition> |
| <Term> | <Acronym> | <Definition> |

Appendix C: Referenced Documents

Instructions: Summarize the relationship of this document to other relevant documents. Provide identifying information for all documents used to arrive at and/or referenced within this document (e.g., related and/or companion documents, prerequisite documents, relevant technical documentation, etc.).

Table 7 - Referenced Documents

| Document Name | Document Location and/or URL | Issuance Date |
| --- | --- | --- |
| <Document Name> | <Document Location and/or URL> | <MM/DD/YYYY> |
| <Document Name> | <Document Location and/or URL> | <MM/DD/YYYY> |
| <Document Name> | <Document Location and/or URL> | <MM/DD/YYYY> |

Appendix D: Approvals

The undersigned acknowledge that they have reviewed the Requirements Document and agree with the information presented within this document. Changes to this Requirements Document will be coordinated with, and approved by, the undersigned, or their designated representatives.

Instructions: List the individuals whose signatures are desired. Examples of such individuals are Business Owner, Project Manager (if identified), and any appropriate stakeholders. Add additional lines for signature as necessary.

Table 8 - Approvals

| Document Approved By | Date Approved |
| --- | --- |
| Name: <Name>, <Job Title> - <Company> | Date |
| Name: <Name>, <Job Title> - <Company> | Date |
| Name: <Name>, <Job Title> - <Company> | Date |
| Name: <Name>, <Job Title> - <Company> | Date |

Appendix E: Notes to the Author/Template Instructions

This document is a template for creating a Requirements Document for a given investment or project. The final document should be delivered in an electronically searchable format. The Requirements Document should stand on its own with all elements explained and acronyms spelled out for reader/reviewers, including reviewers outside CMS who may not be familiar with CMS projects and investments.

This template was designed based on best practices and information to support CMS governance and IT processes. Use of this template is not mandatory, rather programs are encouraged to adapt this template to their needs by adding or removing sections as appropriate. Programs are also encouraged to leverage these templates as the basis for web-based system development artifacts.

This template includes instructions, boilerplate text, and fields. The developer should note that:

* Each section provides instructions or describes the intent, assumptions, and context for content included in that section. Instructional text appears in blue italicized font throughout this template.
* Instructional text in each section should be replaced with information specific to the particular investment.
* Some text and tables are provided as boilerplate examples of wording and formats that may be used or modified as appropriate.

When using this template, follow these steps:

1. Table captions and descriptions are to be placed left-aligned, above the table.
2. Modify any boilerplate text, as appropriate, to your specific project.
3. All documents must be compliant with Section 508 requirements.
4. Figure captions and descriptions are to be placed left-aligned, below the figure. All figures must have an associated tag providing appropriate alternative text for Section 508 compliance.
5. Delete this “Notes to the Author/Template Instructions” page and all instructions to the author before finalizing the initial draft of the document.