Access Management Framework

**Functional Requirement Specification Document**

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1. Introduction

The Access Management Framework Requirement Specification Document defines the essential functional and non-functional requirements for the development of the Access Management Framework (AMF). The Access Management Framework is envisioned as a reusable solution designed to streamline and standardize the implementation of authentication and authorization within software applications. This document outlines the project's objectives, scope, and intended audience while providing a comprehensive overview of the framework's requirements.

* 1. Purpose

The purpose of this Requirement Specification Document is to outline the functional and non-functional requirements for the development of Access Management Framework (AMF). This document serves as a comprehensive guide for stakeholders, project managers, and development teams, providing a clear understanding of the project's objectives and constraints.

* 1. Scope

The scope of the Access Management Framework (AMF) encompasses the following key aspects:

**Inclusions**

1. **System Settings**
2. **Module Management**
3. **Authentication Mechanisms:**
4. **Authorization Policies:**
5. **Integration Capabilities:**
6. **Audit and Logging:**
7. **User Management:**
8. **Workspace Management:**
9. **Module Action Management:**
10. **Role Management:**
11. **Role Group Management:**

**Exclusions**

1. **Application-Specific Implementations:**

* The AMF will not dictate the specific implementation details within individual software applications, focusing solely on providing a standardized framework for access management

1. Functional Requirements

Functional requirements for this system specify the specific functionalities and behaviours that must exhibit to full-fill its purpose.

* 1. System Settings

The system can be configured in two different modes:

* **SaaS (Software as a Service) System Mode:**

In SaaS system mode, the system can have any number of Members

* **Stand Alone System Mode:**

In Stand Alone System Mode, the system has one and only one Member

* 1. Module Management

The module management refers to different functions that are performed in a specific set and these specific set can have different actions. The module management specifies how the system should organize, control and coordinate its various functional modules.

* **Module Identification:**

This system should allow identifications and naming of individual modules. Each module should have unique identifier for reference and management purpose.

* **Configuration and Customization:**

Providing configuration option for each module and allowing users to customize settings.

* **Module Organization:**

Provide a mechanism for organizing a module into logical groups or categories.

* **Member Restriction:**

The system must implement member restriction mechanism to control access and permission for individual users with respect to individual modules.

* **Documentation:**

Provide a standardized template for documenting module functionality.

The multi action group behaviour whether a member can be assigned multiple action groups or only one action group.

* **Member:** A member is an organisation or individuals who manage its information in one or more application in the system. Where, one member can have different action groups.
* **Application:** An application is a logical group of modules that enables management of information of a specific nature.
* **Action:** where an action is defined as a set of tasks that can be performed in a module.
* **Action Group:** These means grouping of actions that facilitates the actions of the members. Where, one action group can have multiple actions.
* **Application Action:** This refers to a process where both application and action related functions are taken in one process. In which there are multiple applications and multiple action.
* **Module:** A modules refers to the functions which can be performed on a specific set of information. Where, one module can have multiple numbers of actions.
  1. Authorization
  2. Admin Application
     1. Admin Member Management
        1. Member Search
        2. Member Registration Settings
        3. Log admin setting changes.
  3. Member Application
     1. Member Management

“Members” are the subscribers of an application.

A Member can have one or more users.

Member management has the following functionalities:

1. Member Registration
2. Manage Member Information
   * + 1. Member Registration
          1. A Member must have an email address for registration.
          2. Email address of each member must be unique.
          3. Registration through Email OTP.
          4. Use captcha to prevent automated bots from registering fake accounts.
          5. A link to the terms of service and privacy policy on the registration page
          6. Include a checkbox to agree to the terms of service and privacy policy during registrations.
       2. Manage Member Information
          1. View Profile
          2. Update Profile
          3. Change Email Address
     1. User Management
     2. Subscription Management
     3. User Group Management
     4. Workspace Type Management
     5. Module Management
     6. Module Action Management
     7. Role Management
     8. Role Group Management
     9. Workspace Management
     10. Workspace User Management
     11. Workspace User Role Management
3. Non-Functional Requirements
4. Constraints
5. Assumptions
6. Dependencies
7. Risks
8. Glossary
9. Appendix
10. Version Log

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