

Project Design Phase: Proposed Solution

Field	Detail
Date	02 November 2025
Team ID	NM2025TMID00414
Project Name	Optimizing User Group and Role Management with Assess, Control, and Workflow
Maximum Marks	2 Marks

Proposed Solution Template

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Access Sprawl and Inconsistent Privilege: Users often accumulate unnecessary roles and permissions over time due to fragmented, manual processes, leading to security risks, audit failures, and difficulty in enforcing the Principle of Least Privilege .
2.	Idea / Solution description	The solution is a unified Identity Governance Framework implementing Assess, Control, and Workflow . It uses RBAC (Role-Based Access Control) for defined access, automates periodic access assessment (recertification), and enforces all changes via a standardized, policy-driven workflow engine .
3.	Novelty / Uniqueness	The unique value lies in the real-time risk scoring of access assignments and the seamless integration of continuous assessment into daily operations, shifting from reactive auditing to proactive access control .
4.	Social Impact / Customer Satisfaction	Drastically reduces the burden on IT and compliance teams by automating repetitive tasks, while improving security posture and ensuring user access is granted quickly but securely , leading to high

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		satisfaction.
5.	Business Model (Revenue Model)	The solution is an enterprise platform component or service offered on a subscription model (SaaS) based on the number of managed users/roles. Potential for consulting revenue for initial RBAC design and implementation.
6.	Scalability of the Solution	Highly scalable, built to manage millions of users and roles across hybrid-cloud environments . The workflow engine is microservices-based , allowing it to seamlessly adapt to diverse and increasing organizational access requirements.

Conclusion

The project "**Optimizing User Group and Role Management with Assess, Control, and Workflow**" addresses the critical issue of uncontrolled access sprawl by introducing **disciplined governance**. This solution ensures that access is consistently **assessed** for necessity, strictly **controlled** via policy, and managed through auditable **workflows**. This shift transforms User Group and Role Management from a high-risk operational task into a **secure, transparent, and automated business process**, establishing a foundation for a mature and compliant enterprise security environment.

Solution Description

To prevent the accumulation of unauthorized and excessive privileges, the solution implements a **three-pillar framework**. **Assessment** involves regular, automated recertification campaigns where role owners must validate existing access. **Control** is maintained by centralizing all permissions under a defined, least-privilege **Role-Based Access Control (RBAC)** model. Finally, every request for a new role, modification, or removal is channeled through a configurable **Workflow Engine**, ensuring appropriate approvals and Segregation of Duties (SoD) checks are completed before any change is committed. This combination ensures that access is always justified and tightly governed.