

Project Design Phase-II

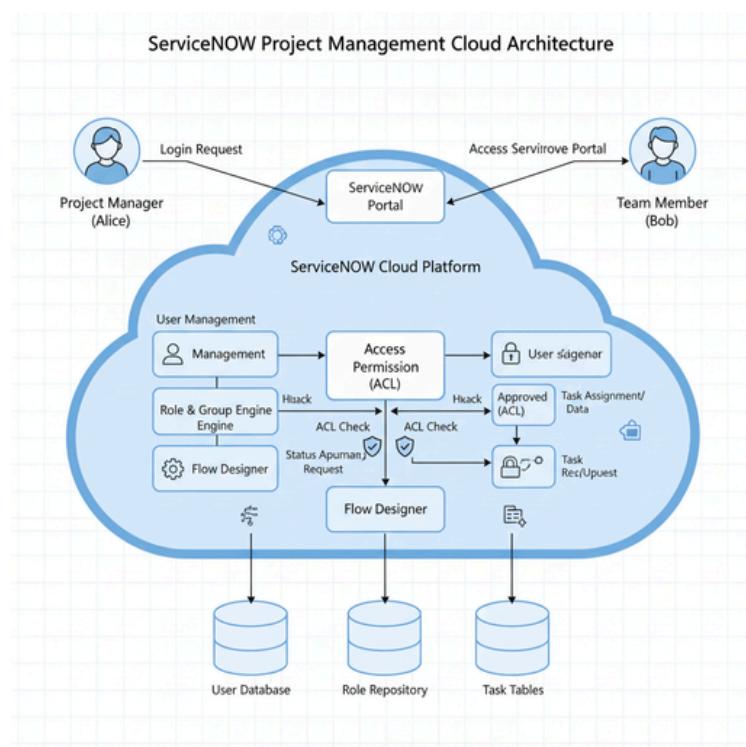
Technology Stack (Architecture & Stack)

Date	01 November 2025
Team ID	NM2025TMID01639
Project Name	Optimizing User, Group and Role Management with Access Control and Workflows
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

Example: User Management and Workflow Automation in ServiceNow



Guidelines:

- Include all the processes (As an application logic / Technology Block)
- Provide infrastructural demarcation (Local / Cloud)
- Indicate external interfaces (third party API's etc.)
- Indicate Data Storage components / services
- Indicate interface to machine learning models (if applicable)

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Project Manager and Team Member interact via ServiceNow portal.	ServiceNow Web UI
2.	Application Logic	Manages user, group, and role creation	ServiceNow User Administration
3.	Application Logic-2	Configures Access Control Lists for security	ServiceNow ACL Configuration
4.	Application Logic-3	Creates automated workflows for task management.	ServiceNow Flow Designer
5.	Database	Stores user data, and other records	ServiceNow CMDB, User Tables
6.	Cloud Database	Managed by ServiceNow cloud backend.	ServiceNow Cloud Database
7.	File Storage	Minimal use; configuration data stored internally	ServiceNow system logs
8.	External API-1	LDAP integration for user synchronization	REST API in ServiceNow
9.	External API-2	Not applicable	-
10.	Machine Learning Model	Not applicable for current use case	-
11.	Infrastructure (Server / Cloud)	Hosted and managed on ServiceNow SaaS platform	ServiceNow Cloud (SaaS)

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Not applicable (ServiceNow is proprietary)	-
2.	Security Implementations	Role-based access control, ACLs, field-level security	ACLs, Role-based Permissions
3.	Scalable Architecture	SaaS-based, horizontally scalable via ServiceNow architecture	ServiceNow Cloud Architecture
4.	Availability	Highly available with ServiceNow cloud hosting	Load-balanced ServiceNow Instances
5.	Performance	Optimized via efficient ACL checks and workflow execution	Flow Designer, Background Scripts