

Project Design Phase-II Technology Stack (Architecture & Stack)

Date	01 November 2025
Team ID	NM2025TMID02349
Project Name	Streamlining Ticket Assignment for Efficient Support Operations
Maximum Marks	4 Marks

Technical Architecture:

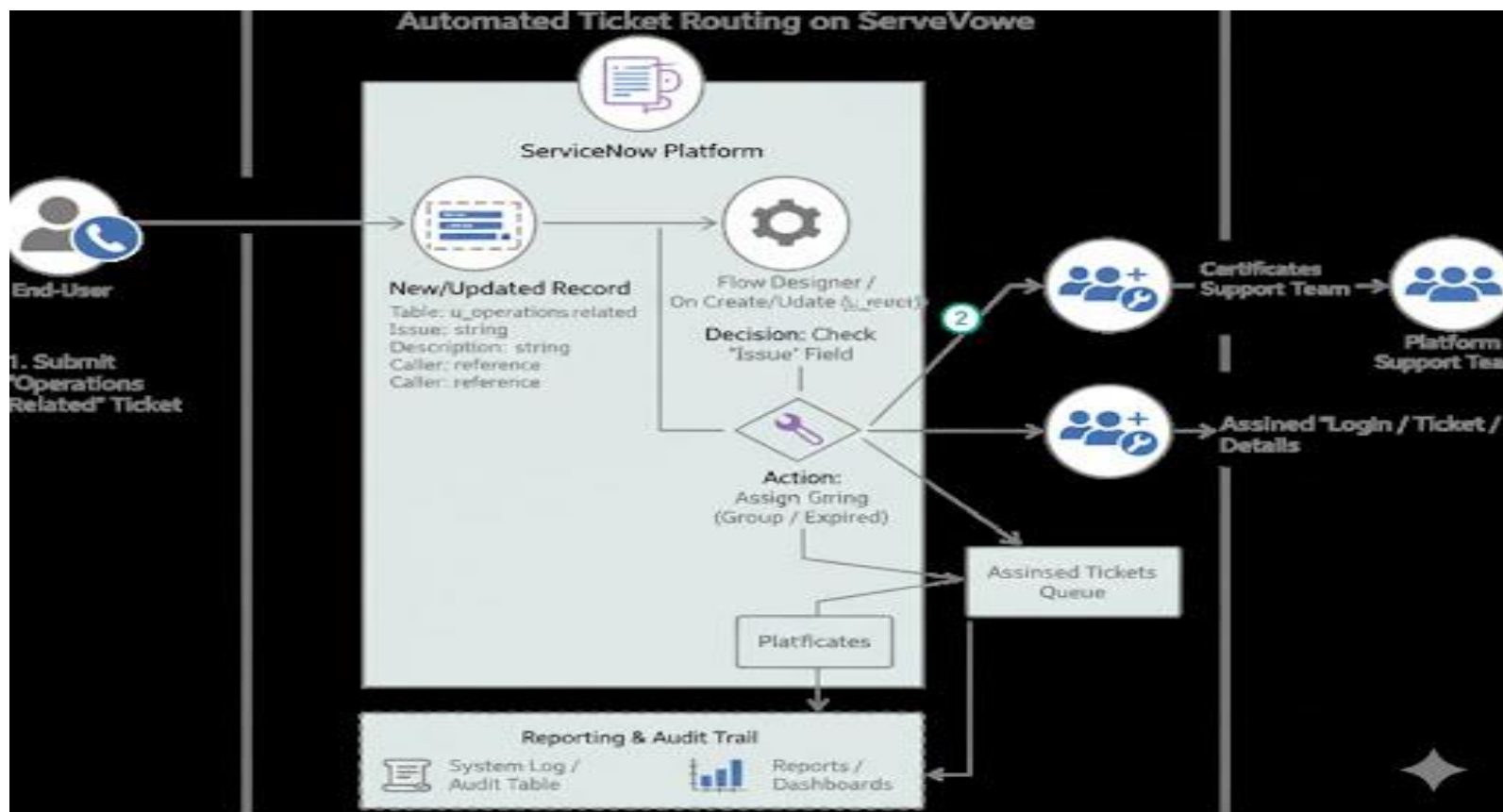


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	End-user submits a ticket via a ServiceNow form . Support agents view tickets in lists/queues .	ServiceNow Web UI (Forms, Lists)
2.	Application Logic-1	Triggers when a record is created/updated on the Operations related table and checks the 'Issue' field .	ServiceNow Flow Designer (Trigger)
3.	Application Logic-2	Updates the 'Assigned to group' field on the record based on the 'Issue' (e.g., to 'Certificates' or 'Platform').	ServiceNow Flow Designer (Action: Update Record)
4.	Application Logic-3	(Optional) Sends a notification to the assigned group that a new ticket is in their queue.	ServiceNow Notifications
5.	Database	Stores the new tickets , the support groups , and user data.	ServiceNow Custom Table (u_operations_related), Group Table (sys_user_group)
6.	Cloud Database	Managed by ServiceNow cloud backend, hosts the custom table and flow definitions.	ServiceNow Cloud Database
7.	File Storage	Minimal use; stores execution logs for the flows and audit history for the tickets.	ServiceNow system logs, Flow execution details
8.	Machine Learning Model	Not applicable. (Future scope could use ML for predictive assignment).	-
9.	Infrastructure (Server / Cloud)	Hosted and managed on the 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 (Platform_role, Certificate_role) and ACLs restrict read/write access to the Operations related table.	ACLs (Access Controls) , System Security (Roles)
3.	Scalable Architecture	The solution is highly scalable; new routing rules or groups can be added via Flow Designer with no code.	ServiceNow Cloud Architecture, Flow Designer
4.	Availability	Highly available with ServiceNow cloud hosting and redundant instances.	Load-balanced ServiceNow Instances
5.	Performance	Optimized via efficient, modern Flow Designer logic (rather than older scripts) and indexed tables.	Flow Designer , Indexed Tables