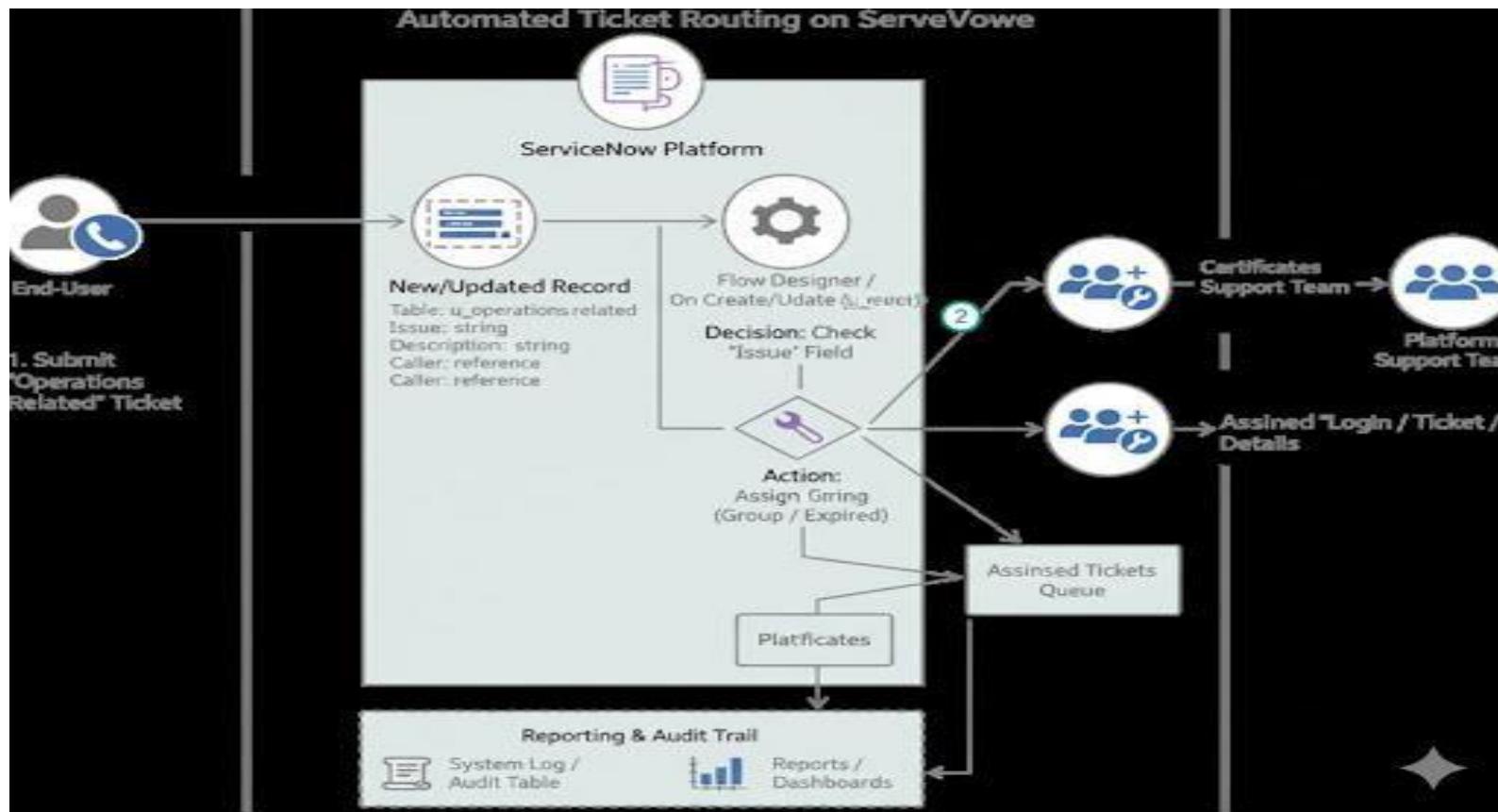


**Project Design Phase-II**  
**Technology Stack (Architecture & Stack)**

Team ID	LTVIP2026TMIDS71126
Team Leader	Sai Harshitha Uddisa
Team Member	Sai Sarani Vanicharla
Team Member	Sai Sri Ramya Kudupudi
Team Member	Satya Chittimenu

**Technical Architecture:**



**Table-1 : Components & Technologies:**

S.No	Component	Description	Technology
1.	<b>User Interface</b>	End-user submits a ticket via a <b>ServiceNow form</b> . Support agents view tickets in <b>lists/queues</b> .	ServiceNow Web UI (Forms, Lists)
2.	<b>Application Logic-1</b>	<b>Triggers</b> when a record is created/updated on the Operations related table and <b>checks the 'Issue' field</b> .	ServiceNow <b>Flow Designer</b> (Trigger)
3.	<b>Application Logic-2</b>	<b>Updates the 'Assigned to group' field</b> on the record based on the 'Issue' (e.g., to 'Certificates' or 'Platform').	ServiceNow <b>Flow Designer</b> (Action: Update Record)
4.	<b>Application Logic-3</b>	(Optional) Sends a notification to the assigned group that a new ticket is in their queue.	ServiceNow Notifications
5.	<b>Database</b>	Stores the <b>new tickets</b> , the <b>support groups</b> , and user data.	ServiceNow Custom Table ( <code>u_operations_related</code> ), Group Table ( <code>sys_user_group</code> )
6.	<b>Cloud Database</b>	Managed by ServiceNow cloud backend, hosts the custom table and flow definitions.	ServiceNow Cloud Database
7.	<b>File Storage</b>	Minimal use; stores execution logs for the flows and audit history for the tickets.	ServiceNow system logs, Flow execution details
8.	<b>Machine Learning Model</b>	Not applicable. (Future scope could use ML for predictive assignment).	-
9.	<b>Infrastructure (Server / Cloud)</b>	Hosted and managed on the ServiceNow SaaS platform.	ServiceNow Cloud (SaaS)

**Table-2: Application Characteristics:**

S.No	Characteristics	Description	Technology
1.	<b>Open-Source Frameworks</b>	Not applicable (ServiceNow is proprietary).	-
2.	<b>Security Implementations</b>	<b>Role-based access control</b> (Platform_role, Certificate_role) and <b>ACLs</b> restrict read/write access to the Operations related table.	<b>ACLs (Access Controls)</b> , System Security (Roles)
3.	<b>Scalable Architecture</b>	The solution is highly scalable; new routing rules or groups can be added via <b>Flow Designer</b> with no code.	ServiceNow Cloud Architecture, <b>Flow Designer</b>
4.	<b>Availability</b>	Highly available with ServiceNow cloud hosting and redundant instances.	Load-balanced ServiceNow Instances
5.	<b>Performance</b>	Optimized via efficient, modern <b>Flow Designer</b> logic (rather than older scripts) and indexed tables.	<b>Flow Designer</b> , Indexed Tables