

Project Design Phase-II

Technology Stack (Architecture & Stack)

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Team ID: NM2025TMID09193

Project Name: *Streamlining Ticket Assignment for Efficient Support Operations*

Technical Architecture:

This project is about improving how support tickets are handled in ServiceNow. The system automatically sends each new ticket to the correct support team. It helps reduce delays, improve response time, and make customers happier.

How it works:

- Users create support tickets through the ServiceNow portal.
- The system reads the details (like category, priority, and department).
- Based on rules or predictions, the ticket is sent to the right team.
- Notifications are sent to the assigned agent or group.
- Managers can view dashboards to track ticket progress.

Infrastructure:

- The whole system runs on the **ServiceNow Cloud Platform**.
- It can connect to other systems (like HR or Email) using **REST APIs**.

Table-1: Components & Technologies

S.No	Component	Description	Technology
1	User Interface	Users and staff use ServiceNow portal to view and create tickets.	ServiceNow Web UI
2	Application Logic-1	Checks ticket details and sets priority.	Flow Designer
3	Application Logic-2	Assigns tickets to the right team.	Assignment Rules
4	Application Logic-3	Sends notification after assignment.	ServiceNow Notifications
5	Database	Stores all ticket and user data.	ServiceNow CMDB
6	Cloud Database	Cloud backend for data storage.	ServiceNow Cloud
7	File Storage	Stores system logs and reports.	ServiceNow Logs

S.No	Component	Description	Technology
8	External API-1	Connects with HR system to verify department.	REST API
9	External API-2	Connects with email for ticket updates.	SMTP / REST
10	Machine Learning Model	Helps predict the right team for a ticket.	Predictive Intelligence
11	Infrastructure	Runs on ServiceNow Cloud servers.	SaaS Cloud

Table-2: Application Characteristics

S.No	Characteristic	Description	Technology
1	Open Source	Not applicable (ServiceNow is proprietary).	-
2	Security	Access given based on user roles.	ACLs
3	Scalability	Can handle more users easily.	Cloud Platform
4	Availability	Always online with cloud hosting.	Load-balanced Cloud
5	Performance	Works faster with optimized scripts.	Flow Designer
6	Monitoring	Tracks tickets with dashboards.	Performance Analytics