

PROJECT DESIGN PHASE-II

Technology stack (architecture & stack)

Date	02 NOVEMBER 2025
Team id	NM2025TMID00421
Project name	STREAMLINING TICKET ASSIGNMENT FOR EFFICIENT SUPPORT OPERATIONS
Maximum marks	4 MARKS

Technical Architecture:

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

Example: Streamlining Ticket Assignment for Efficient Support Operations

Reference: https://www.zendesk.com/blog/skilis-based-routing-route-way-success/?utm_source=chatgpt.com

Guidelines

- Show all main processes as logic blocks with their technologies.
- Mention whether each part runs on Local or Cloud.
- Indicate all external interfaces (APIs, integrations).
- Highlight data storage components used
- Include ML model interface if applicable.

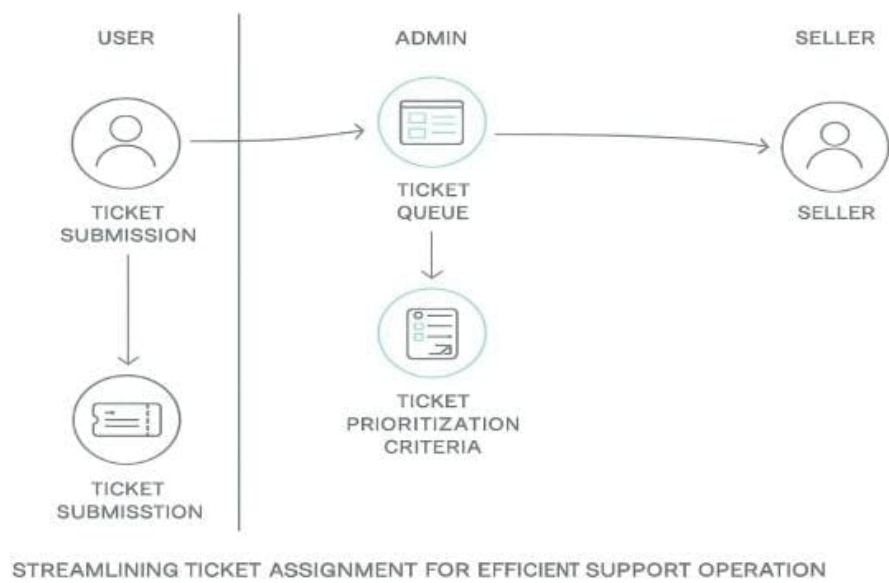


Table -1: components & technologies

S.no	component	description	technology
1	User interface	Support agents and supervisors interact via a web dashboard to view, assign, and track tickets.	Service Now Agent Workspace / Web UI
2	Application logic-1	Automatically routes tickets based on predefined rules like priority, category, and skill set.	Service Now Flow Designer (Decision Tables, Rules)
3	Application Logic-2	Checks agent workload and availability before assigning a new ticket	Glide Record queries in Server Script / Script Includes
4	Application Logic-3	Sends notifications to assigned agents and escalates if not acknowledged within SLA	Service Now Notifications / Flow Actions
5	Database	Stores details of tickets, agents, skills, and workload data.	Service Now Incident, Task, and Assignment Tables
6	Cloud database	Managed by Service Now's backend for data storage and reliability	Service Now Cloud Database (SaaS)
7	File storage	Stores logs and assignment audit trails for compliance and monitoring	Service Now System Logs / Attachments
8	External API-1	Integrates with HRMS or Workforce Management to fetch agent skill and schedule data.	REST API Integration via Service Now Integration Hub
9	External API-2	Connects with email/chat systems to ingest new tickets automatically	REST / Email Inbound Actions / Virtual Agent
10	Machine learning model	Recommends best-fit agents for new tickets based on historical resolution data	Service Now Predictive Intelligence / ML Recommendations
11	Infrastructure (Server/cloud)	Hosted entirely on Service Now's SaaS cloud platform ensuring scalability and	Service Now Cloud (SaaS)

		uptime.	
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Table-2: Application characteristics

S.no	Characteristics	Description	Technology
1	Open source frameworks	Not applicable, as the ticket assignment automation is built within Service Now's proprietary platform.	-
2	Security implementations	Implements strong access control with user roles, ACLs, and scoped app permissions to ensure only authorized users can modify assignment rules.	Role based access control , ACLs , scoped applications
3	Scalable Architecture	Designed on Service Now's SaaS architecture that supports horizontal scaling and handles large ticket volumes efficiently	Service Now cloud architecture
4	Availability	Hosted on the Service Now cloud platform with redundancy and failover for continuous availability (typically 99.95% uptime).	Load balanced service now administrator
5	performance	Optimized with asynchronous Flow Designer actions, indexed tables, and Glide Record queries for faster assignment processing.	Flow designer , glide record , background scripts