

# PROJECT DESIGN PHASE II

## SOLUTION REQUIREMENTS (FUNCTIONAL & NON FUNCTIONAL)

Date	02 NOV 2025
TeamID	NM2025TMID01660
Project Name	Streamlining Ticket Assignment for efficient support operations
Maximum mark	4 marks

## Functional Requirements

These define the specific behaviors and capabilities needed for the automated assignment process.

### 1. Intelligent Categorization and Initial Assignment

- **FR1.1:** The system **must** automatically classify new inbound tickets (Incidents, Requests) by **Category** and **Subcategory** based on input text (Short Description/Description) using **Predictive Intelligence** models trained on historical data.
- **FR1.2:** The system **must** automatically suggest or set the initial **Assignment Group** based on the predicted Category/Subcategory or the associated **Configuration Item (CI)**.
- **FR1.3:** The system **must** support manual overrides by an authorized agent or administrator during the initial triage phase before final assignment.

### 2. Dynamic Agent Assignment Logic

- **FR2.1:** The system **must** support **Assignment Rules** that trigger based on criteria like Priority, CI, Service, or Location.
- **FR2.2:** The system **must** implement **load-balancing** logic (e.g., **Round Robin** or **Least Busy/Capacity**) to assign tickets to individual agents within the designated Assignment Group.
- **FR2.3:** The assignment logic **must** check an agent's **current availability status** (e.g., Busy, Away, On Shift) before assigning the ticket.

- **FR2.4:** The system **must** incorporate **skill-based routing**, prioritizing agents who possess primary or mandatory skills matching the ticket's required skill tag.
- **FR2.5:** The system **must** support configuration for **Escalation Routing**, automatically reassigning a ticket if it remains unassigned or unhandled by the initial assignment group beyond a defined threshold (e.g., 30 minutes).

### 3. Workflow and Notification

- **FR3.1:** The system **must** send an immediate **email/system notification** to the assigned agent upon assignment.
- **FR3.2:** The system **must** update the ticket record with an **Audit Log** entry detailing the **method** of assignment (e.g., "Auto-assigned via Predictive Intelligence," "Manually assigned by Agent X via Round Robin").
- **FR3.3:** The system **must** allow configuration for **fallback assignment** (e.g., assign to a specific backup group or a manager) if no eligible agent is found in the primary assignment group

That's a great next step! Defining clear requirements is crucial for a successful ServiceNow implementation.

Here are the key **Functional and Non-Functional Requirements (NFRs)** for streamlining ticket assignment in ServiceNow.

## Functional Requirements (What the system must do)

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# Non-Functional Requirements

These define the quality attributes necessary for the assignment process to be deemed efficient and reliable.

## 1. Performance&Latency

- **NFR1.1 (Latency):** The time taken from **Ticket Submission** to **Final Assignment** (when the ticket appears in the agent's work queue) **must not exceed 5 seconds** for 95% of submissions (excluding email processing time).
- **NFR1.2 (Scalability):** The assignment engine **must** be able to handle up to **1,000 new ticket assignments per hour** during peak times without performance degradation.

- **NFR1.3 (Model Accuracy):** The Predictive Intelligence assignment model **must maintain an assignment accuracy rate of at least 85%** for initial group prediction.

## 2. Reliability&Availability

- **NFR2.1 (Uptime):** The automated assignment mechanism **must have an availability of 99.9%** during business hours.
- **NFR2.2 (Error Handling):** In the event of an assignment engine failure, the system **must revert to a defined static fallback group** and log a critical error.
- **NFR2.3 (Auditability):** All routing decisions, including skipped agents or failed conditions, **must be logged** for troubleshooting and compliance purposes.

## 3. Usability&Maintainability

- **NFR3.1 (Configuration):** Assignment logic (**Rules, Agent availability, Skill mapping**) **must be configurable** by authorized administrators through **Flow Designer or standard Business Rules**, with minimal or no custom scripting required for standard changes.
- **NFR3.2 (Visibility):** Managers **must** be able to easily view the **current assignment load** for all agents and groups via a dedicated **Performance Analytics Dashboard**.
- **NFR3.3 (Learning):** The AI/ML models **must support automated retraining cycles** (e.g., weekly) to learn from new ticket resolutions.