

PROJECT PLANNING PHASE

PROPOSED SOLUTION

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| Team ID | NM2025TMID04990 |
| Project Name | Streamlining Ticket Assignment for efficient support operations |

The proposed solution for streamlining ticket assignment is centered on implementing a **Hybrid Intelligent Routing System** that ensures tickets are directed to the **right agent, with the right skills, at the right time**. This system combines three core mechanisms. First, **Automated Skill-Based Routing** uses a detailed agent matrix, tagging agents with expertise levels across products, languages, and issue types. When a new ticket arrives, an initial triage system—powered by **Machine Learning (ML) Tagging**—automatically analyzes the ticket content, priority, and topic to assign the appropriate skill tags. Second, **Dynamic Load Balancing** prevents agent burnout and cherry-picking by factoring in an agent's current queue size, recent assignment history, and scheduled availability before finalizing the assignment. This dynamic approach overrides simple round-robin methods to ensure fair and immediate distribution. Finally, a new **Triage Queue/Role** is introduced, staffed by experienced agents who handle the small percentage of tickets the automation cannot confidently route, acting as a crucial safety net and a continuous feedback loop for refining the ML model. Together, these elements are designed to significantly reduce the ticket re-assignment rate, cut down Mean Time to Resolution (MTTR), and boost overall team efficiency and morale.

