

# Solution Requirements Document (SRD)

Date	November 02, 2025
TeamId	NM2025TMID02810
Project Name	Streamlining Ticket Assignment For Efficient Support Operations
Maximum Marks	4 Marks

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## 1. Document Purpose

This SRD outlines both the functional and non-functional specifications for the Smart Assignment Engine (SAE) within ServiceNow. It acts as the authoritative reference for design, development, testing, and verification activities.

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## 2. Scope Summary

### In-Scope:

- Automated assignment for Incident and Service Request records
- Tiered routing logic: Business Rules → Skill Matching → Workload Balancing → Predictive Intelligence
- Live Performance Analytics dashboard
- Integrated notifications and continuous improvement feedback loop

### Out-of-Scope:

- Assignment of Change, Problem, or Knowledge tasks
  - Full Virtual Agent integration
  - External system routing (e.g., Jira, Salesforce)
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## 3. Functional Requirements

ID	Requirement	Priority	Acceptance Criteria
FR-01	System shall auto-populate <code>assignment_group</code> and <code>assigned_to</code> on ticket creation	Must	80%+ tickets assigned without manual input
FR-02	Assignment Rules shall support conditions: <code>category</code> , <code>subcategory</code> , <code>priority</code> , <code>location</code> , <code>caller.vip</code>	Must	Configurable via OOB Assignment Rules UI
FR-03	Skill-based matching shall use <code>sys_user.u_skills</code> (multi-select) and map to ticket <code>u_required_skill</code>	Must	85%+ skill match rate in pilot
FR-04	Workload Balancer shall skip agents with <code>u_current_load &gt; 15</code>	Should	Load recalculated on assign/close
FR-05	Predictive Intelligence shall suggest assignee based on historical resolution patterns	Should	Accuracy >80%; confidence threshold 70%
FR-06	Fallback logic: If no assignee found → round-robin within group	Must	No unassigned tickets >5 min
FR-07	System shall send real-time notification (Slack/Email) on assignment	Must	Delivered <10 sec; includes ticket link
FR-08	Performance Analytics dashboard shall display: Auto-Assignment %, Avg. Time, Top Skills, Agent Load	Must	Auto-refresh every 5 min
FR-09	Post-resolution survey shall trigger: "Was this ticket relevant to your skills?"	Could	Response rate >60%
FR-10	Agents shall self-update <code>u_skills</code> via Employee Center profile	Should	Audit trail enabled

## 4. Non-Functional Requirements

ID	Category	Requirement	Target	Verification
NFR-01	Performance	Assignment logic execution time	<3 sec (95th %)	JMeter load test
NFR-02	Scalability	Handle concurrent ticket creation	1,000/min	Stress test
NFR-03	Availability	System uptime	99.9%	Monitoring SLA
NFR-04	Reliability	Error rate in assignment	<0.5%	Log analysis
NFR-05	Security	Access to <code>u_skills</code> and scripts	<code>itil</code> , <code>assignment_admin</code> only	ACL testing

ID	Category	Requirement	Target	Verification
NFR-06	Usability	Dashboard intuitive for managers	>4/5 in UAT	User feedback
NFR-07	Maintainability	90% OOB, <10% custom scripts	Code review	Upgrade-safe
NFR-08	Auditability	Log u_assignment_method per ticket	100% coverage	Reporting
NFR-09	Compliance	GDPR: No PII in AI training	Anonymized data	Data scan
NFR-10	Supportability	Alert on auto-rate <75%	Real-time	Event Management

## 5. Data Requirements

Entity	Key Fields	Source	Update Frequency
sys_user	u_skills, u_current_load, u_max_capacity	HR sync + Self-service	Real-time
incident / sc_request	u_required_skill, u_assignment_method, predicted_assignee	SAE logic	On creation/update
assignment_rule	Conditions, assign_to	Admin UI	As needed
Predictive Model	Training dataset	Closed tickets (6+ months)	Monthly retrain

## 6. Interface Requirements

Interface	Type	Details
Email → Ticket	Inbound	Parse subject/body → auto-categorize
Slack/Teams	Outbound	Assignment notification via Integration Hub
Employee Center	UI	Skill self-update form
Performance Analytics	Reporting	PA Indicators + Widgets

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## 7. Constraints & Assumptions

### Constraints:

- Solution must operate on ServiceNow Vancouver or newer.
- Predictive Intelligence licensing is required.
- No net-new custom tables; leverage and extend Out-of-Box structures only.

### Assumptions:

- Sufficient historical ticket data is available for model training.
  - Agent skill records will be kept up to date.
  - The instance has adequate capacity to support real-time processing and routing logic.
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## 8. Traceability Matrix (Sample)

Requirement ID	User Story	Test Case	Status
FR-01	Story 1	TC-001	Draft
FR-03	Story 1	TC-005	Draft
NFR-01	—	TC-PERF-01	Passed (Sandbox)

(Full matrix in Appendix)

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## 9. Risks & Open Items

Risk	Impact	Mitigation
Incomplete skill data	High	Mandatory skill update during onboarding
AI model drift	Medium	Monthly retraining + fallback rules
Script performance	High	Optimize with GlideRecord queries