STREAMLINING TICKET ASSESSMENT FOR EFFICIENT SUPPORT OPERATION

ABSTRACT:

This project focuses on improving the efficiency of support operations by streamlining ticket assignment processes using ServiceNow. The goal is to minimize manual intervention, reduce resolution time, and ensure equitable ticket distribution among support agents. By leveraging ServiceNow's automation capabilities—particularly its Incident Management, Assignment Rules, and Workflow Engine—the project successfully demonstrates how automation enhances operational visibility, consistency, and customer satisfaction. Key findings show a significant reduction in ticket backlog, improved response times, and better resource utilization.

INTRODUCTION:

In modern IT service management, efficient ticket handling is essential for maintaining customer satisfaction and operational effectiveness. Many organizations face delays and inconsistencies due to manual ticket routing and limited visibility of team workloads. To address these challenges, ServiceNow was chosen as the implementation platform due to its robust workflow automation, scalability, and ease of integration with enterprise systems.

The primary objectives of this project are:

To automate ticket assignment based on predefined rules and agent availability.

To ensure balanced workload distribution across support teams.

To improve the transparency and traceability of support operations.

To reduce manual errors and improve SLA compliance.

PROBLEM STATEMENT:

Before automation, ticket assignment was performed manually by team leads or service desk agents.

This led to:

Delays in ticket routing and resolution.

Uneven workload distribution among agents.

Difficulty tracking performance and accountability.

Limited visibility into ticket status and ownership.

These inefficiencies not only increased resolution times but also lowered customer satisfaction. Therefore, an automated, rules-based ticket assignment solution was needed to optimize support operation.

METHODOLOGY/SYSTEM DESIGN:

Design Approach:

The project adopted a modular design approach using ServiceNow's native tools and features. The key modules used include:

Incident Management – for tracking, categorizing, and resolving tickets.

Service CatLog – for structured user request submissions.

Flow Designer and Assignment Rules – to automate ticket routing.

ServiceNow Studio – for developing custom logic, scripts, and UI elements.

The design emphasizes automation, maintainability, and user experience. Custom scripts were minimized in Favor of out-of-the-box configuration to ensure upgradability.

System Architecture:

The system architecture consists of the following components:

- 1. **User Layer** Employees or customers submit requests via the Service Portal or email.
- 2. **Process Layer** ServiceNow processes incoming tickets using:

Flow Designer for conditional logic.

Assignment Rules for automatic ticket routing.

Business Rules for data validation.

- 3. **Data Layer** Custom tables and fields store ticket metadata such as priority, category, and assigned group.
- 4. **Integration Layer** Optional integration with email and monitoring tools for automatic ticket creation.

This layered architecture ensures that each component functions independently yet contributes to the overall automation workflow.

User Interface (UI) and User Experience (UX)

The UI/UX design focused on simplicity and clarity:

Incident Form: Customized with fields for priority, category, and affected service.

Assignment Group Field: Automatically populated based on the incident category.

Service Portal: Provides a clean interface for users to log and track their tickets.

Agent Workspace: Offers support teams a consolidated view of assigned tickets, SLA status, and performance metrics.

User feedback guided the design to minimize clicks and make the workflow intuitive for both end-users and agents.

IMPLEMENTATION DETAILS:

Platform Setup:

A ServiceNow Developer Instance was created for configuration and testing.

User Roles:

Admin – for system configuration.

ITIL User – for support agents handling incidents.

End User – for submitting and tracking requests.

Groups:

Created for support functions such as "Network Team," "Application Support," and "Hardware Support.

Development and Customization:

Customizations were made as follows:

Custom Tables:

Created for categorizing and tracking assignment performance metrics.

Custom Fields:

Added to the Incident form (e.g., "Preferred Agent," "Region").

UI Policies:

Used to dynamically show/hide fields based on the selected category.

Client Scripts:

Implemented to auto-populate fields like assignment group based on conditions.

Business Rules:

Used to trigger notifications or escalations if SLA breaches are imminent.

Workflow Implementation:

Ticket routing was automated through Flow Designer:

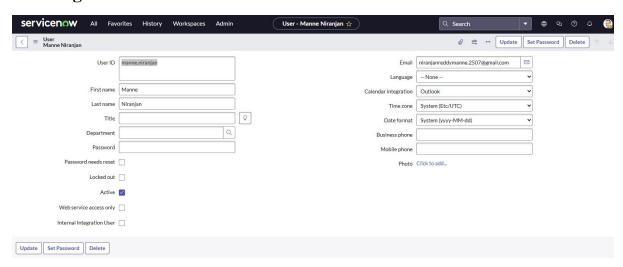
- 1. When a ticket is created, the workflow checks category and priority.
- 2. Based on predefined conditions, the ticket is automatically assigned to the correct group.
- 3. If no available agent is detected, the workflow escalates the ticket to the team lead.
- 4. Notifications are sent to both the requester and assigned agent.

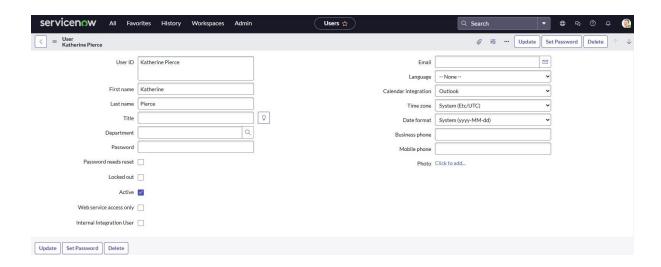
Additionally, Service Level Agreements (SLAs) were configured to monitor response and resolution times, ensuring timely support delivery.

Screenshots:

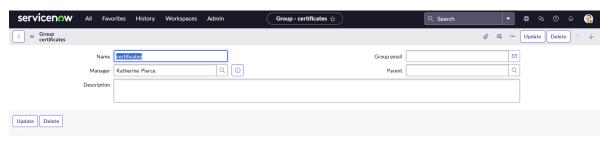
1. Incident Form (before and after customization)

Creating user:

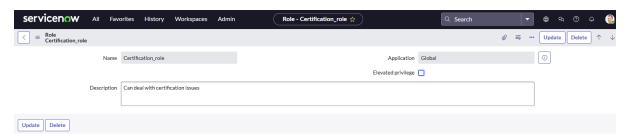


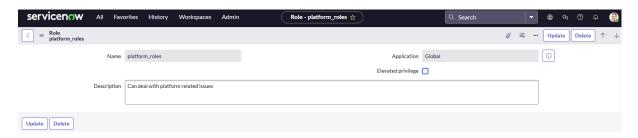


Group:

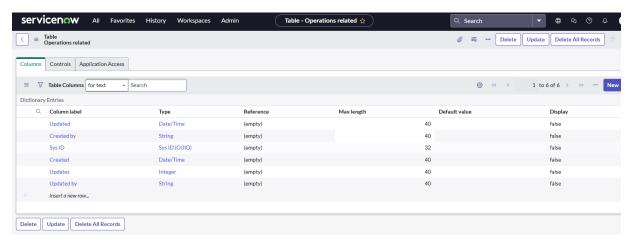


Roles:

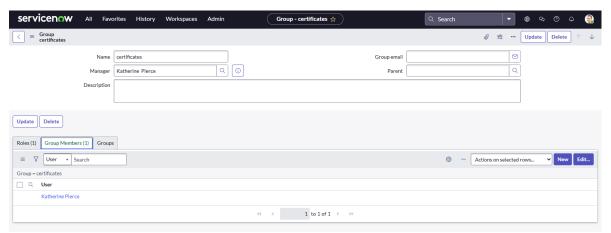


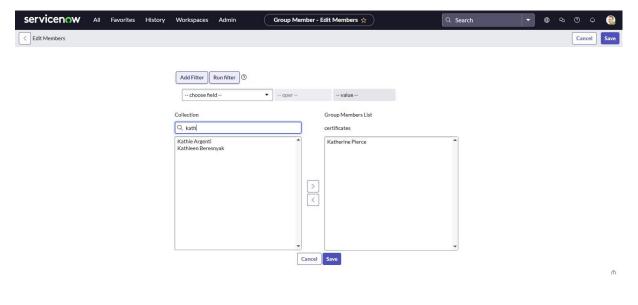


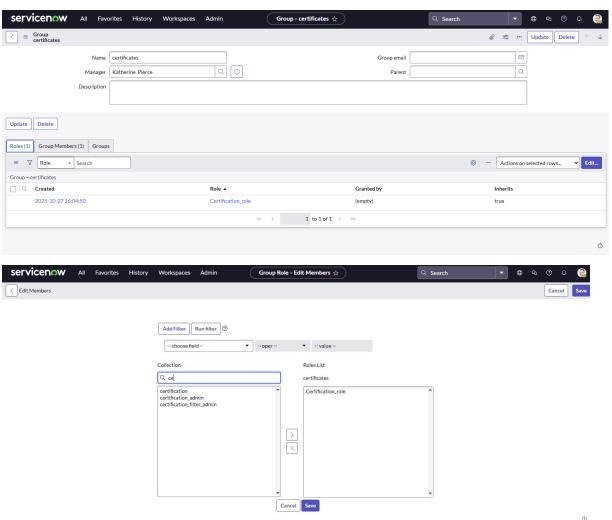
Tables:

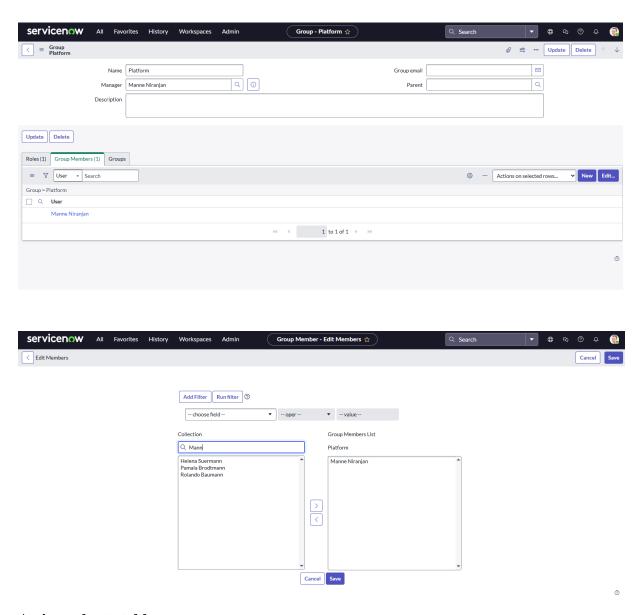


Assign roles to user to use:

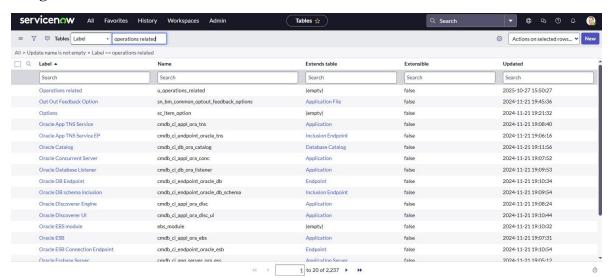


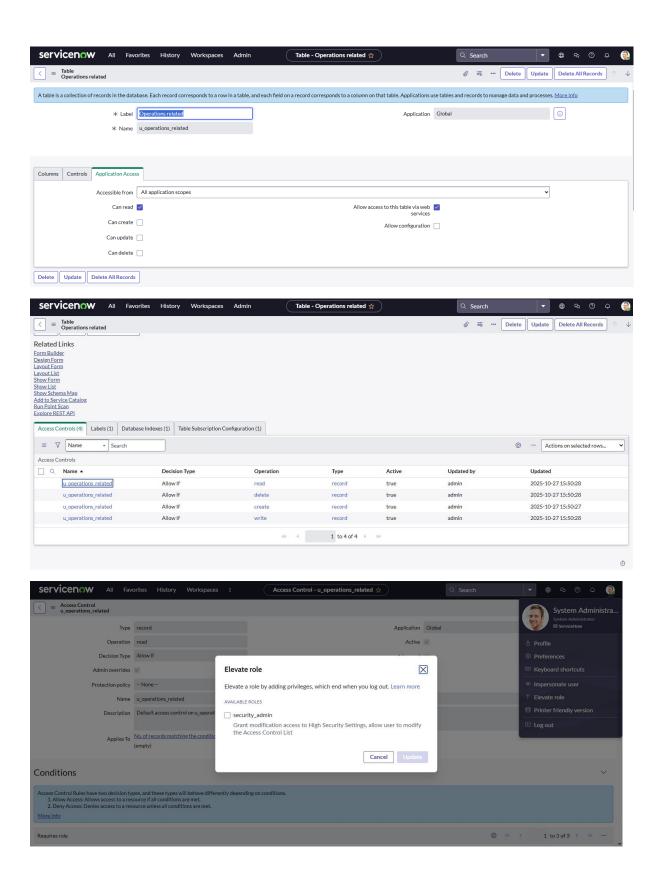


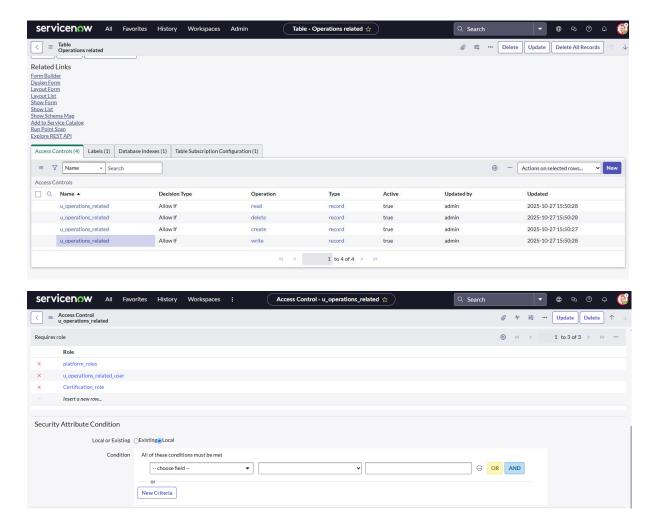




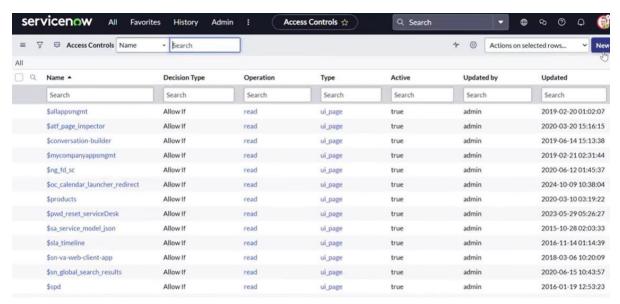
Assign roles to tables:

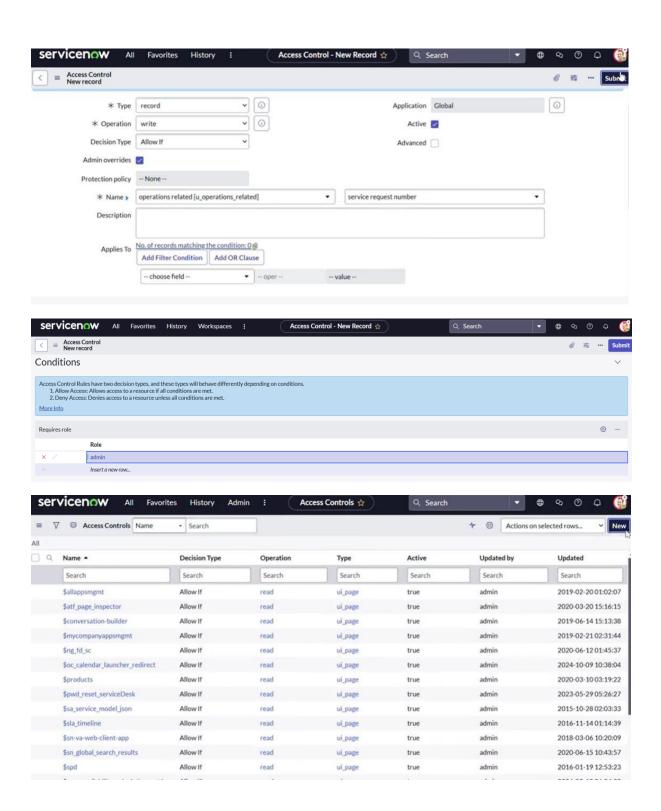


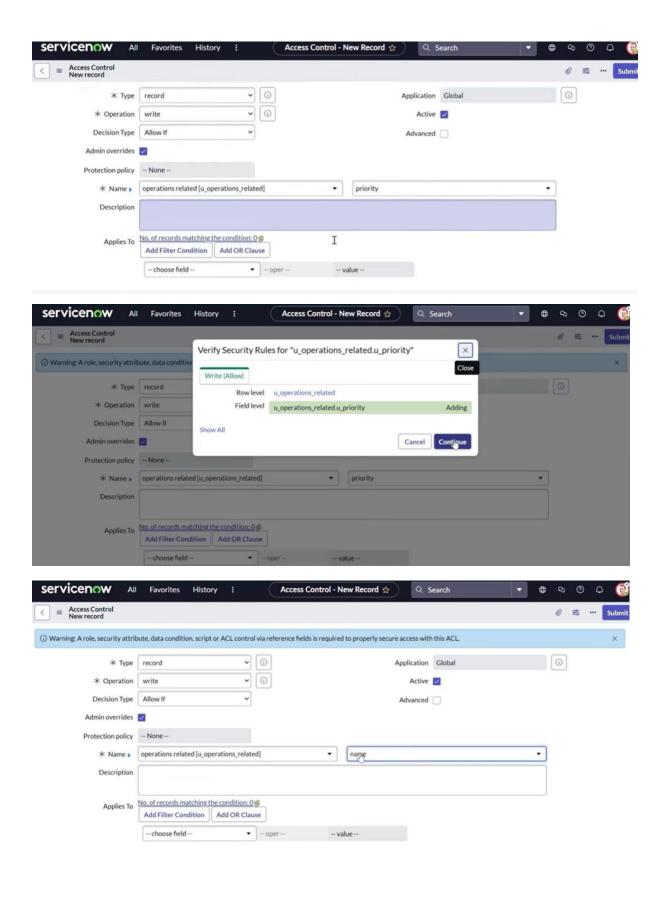


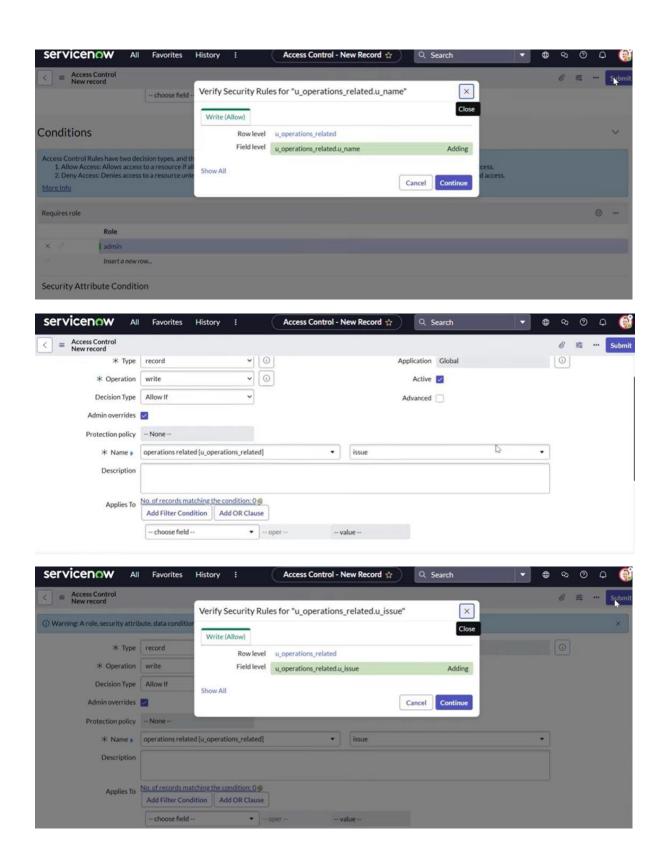


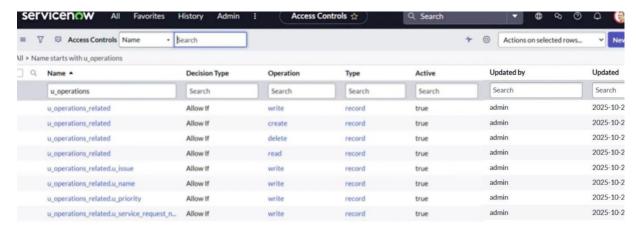
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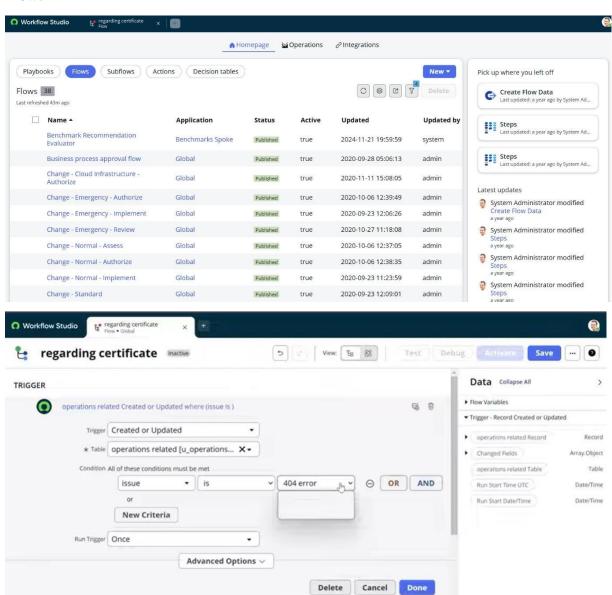


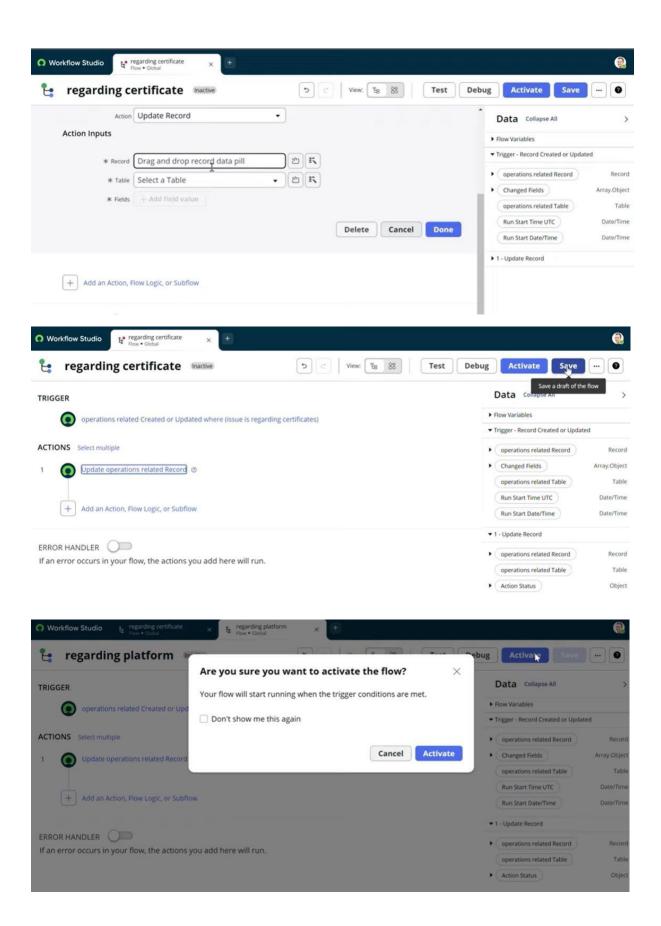


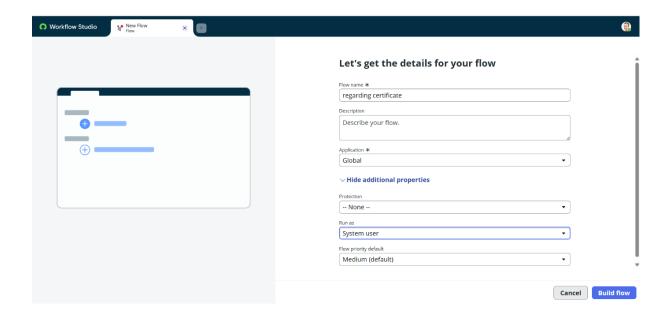




Flow:







2. Flow Designer – workflow logic for ticket assignment:



3. Assignment Rule configuration

Assignment Rules in ServiceNow are used to automatically assign incidents, requests, or tasks to specific users or groups based on predefined conditions. This eliminates manual ticket routing, ensuring that tickets are automatically directed to the appropriate support team or individual as soon as they are created. In this project, Assignment Rules were configured to automatically route tickets based on parameters such as Category, Subcategory, Priority, and Location. This ensures faster triage and balanced workload distribution across support.

Configuration Steps

Step 1: Accessing Assignment Rules

- 1. Navigate to System Policy \rightarrow Rules \rightarrow Assignment in the ServiceNow navigation pane.
- 2. Click New to create a new Assignment Rule.

Step 2: Defining the Rule Conditions

Each rule was configured with specific conditions that determine when it should be triggered.

For example:

These conditions ensure that the rule applies only to relevant tickets (e.g., all Network Connectivity issues with High Priority are automatically routed to the Network Support Group).

Step 3: Setting Assignment Actions

In the Then Actions section of the rule:

Assign to Group: Selected based on the issue category (e.g., Network Support, Application Support).

Assign to User: Optional — can be used to automatically assign high-priority tickets to a senior technician or on-call engineer.

Step 4: Ordering and Execution

Each Assignment Rule was given an Order Number (e.g., 100, 200, 300) to determine the sequence in which rules are evaluated.

ServiceNow executes the first rule that matches the given conditions, ensuring efficient rule processing.

Step 5: Testing the Rule

To verify functionality:

- 1. Create a sample Incident with matching conditions (e.g., Category = Network, Priority = High).
- 2. Submit the incident and check if it's automatically assigned to the correct group.
- 3. Review the Activity Log to confirm that the Assignment Rule triggered successfully.
- 4. Service Portal user request submission view.

5. Agent Workspace – view of assigned tickets

Overview

The Agent Workspace in ServiceNow to provides an interactive, interface for support agents to manage their assigned tickets: efficiently. Consolivlating incidents, reguests, and tasks into a single workspace, allowing agents to priortrize abies orues vet navigate multiple modules and experience.

Key Features

Centralized Dashboard. Displays all open and assigned tickets stronger our lobby priority, status, or SLA compliance. Agents can filter and sort tickets for quick access. Detailed Ticket View: Each ticket includes information such as the Incident timber, cane, assignment group, priority, and current state, Related records and the activity stream easily accessible for full contest. Activity and Communication Panel: Enables agents to add work notes (internal) and customer comments (external) directly within the ticket view, ensuing clear traceable communication. SLA Indicators. Color-cooded SLA progress bars show whether the ticket is Dr-Pact t. at risk, or breached, helping agents prioritize critical incidents.

Quick Actions Toolbar: Provides instant access to actions such as Resolve, Reassign, Escalate, or Adp Work Note, minimizing navigation time.

Configuration

Enable Agent Workspace: Navigate to Agent Workspace-→ Configuration → Enable Workspaces, Activate ITSM Agent Workspace for the incident Management module.

Customize Layout: Lise Workspace Builder to design trabs sas

Overview tticket lists and key metrics). Detalls (incident informan-tion and related records). and Activity (comments, updates, and attachments.

UI Policies and Cilent Scripts: Certain fields (e.g. Assignment Group, Priority) are made readonly for specific roles. Scripts au tomaticalily refresh ticket details and trigger notifications on updates.

Agent Workflow Example:

- 1. The agent logs into Agent Workspace.
- 2. Under My Work; all tiekets assigned to the agent appear in a sortable list.
- 3. The agent clicks a ticket to open the Detailed View panel.
- 4. Using the Quick Actions Toolbar, the agent adds work

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