

servicenow



NM-1051 SERVICENOW ADMINISTRATOR

STREAMLING TICKET ASSIGNMENT FOR EFFICIENT SUPPORT OPERATION

A PROJECT REPORT

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My deepest appreciation goes to [Supervisor/Manager's Name], whose valuable guidance, insightful feedback, and constant motivation were instrumental throughout the project's development and implementation phases.

I would also like to extend my thanks to the Support Operations Team and IT Development Team for their collaboration, domain expertise, and commitment during the system analysis, design, and testing stages. Their practical insights greatly enhanced the project's quality and effectiveness.

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Streamlined Ticket Assignment for Efficient Support Operations

1. Summary

Efficient support operations are critical to maintaining customer satisfaction and operational productivity. The current manual ticket assignment process within the support system leads to inefficiencies such as delayed responses, uneven workload distribution, and misrouted tickets.

This project aims to design and implement a **streamlined, automated ticket assignment system** to optimize support workflows, reduce response times, and enhance overall service quality. By integrating automation and data-driven routing, the system ensures that each ticket is assigned to the most suitable agent promptly and accurately.

2. Objectives

- Automate the ticket assignment process to reduce manual intervention.
 - Improve ticket resolution time by optimizing resource allocation.
 - Enhance transparency and tracking in the ticket lifecycle.
 - Balance workload across support agents based on skill level, availability, and ticket priority.
 - Increase customer satisfaction through faster and more accurate responses.
-

3. Process Analysis

3.1 Existing Workflow

- Tickets are created manually or through user submissions (email, chat, or portal).
- Support managers assign tickets manually based on perceived expertise or availability.

- Escalations occur frequently due to mismatched skills or delayed assignments.

3.2 Key Challenges

- **Manual bottlenecks:** Delays during peak hours due to dependency on supervisors.
 - **Uneven workload:** Some agents are overloaded while others are underutilized.
 - **Limited visibility:** Lack of metrics on assignment efficiency and performance.
 - **Customer dissatisfaction:** Slow response times and inconsistent service quality.
-

4. Proposed Solution: Streamlined Ticket Assignment System

4.1 Solution Overview

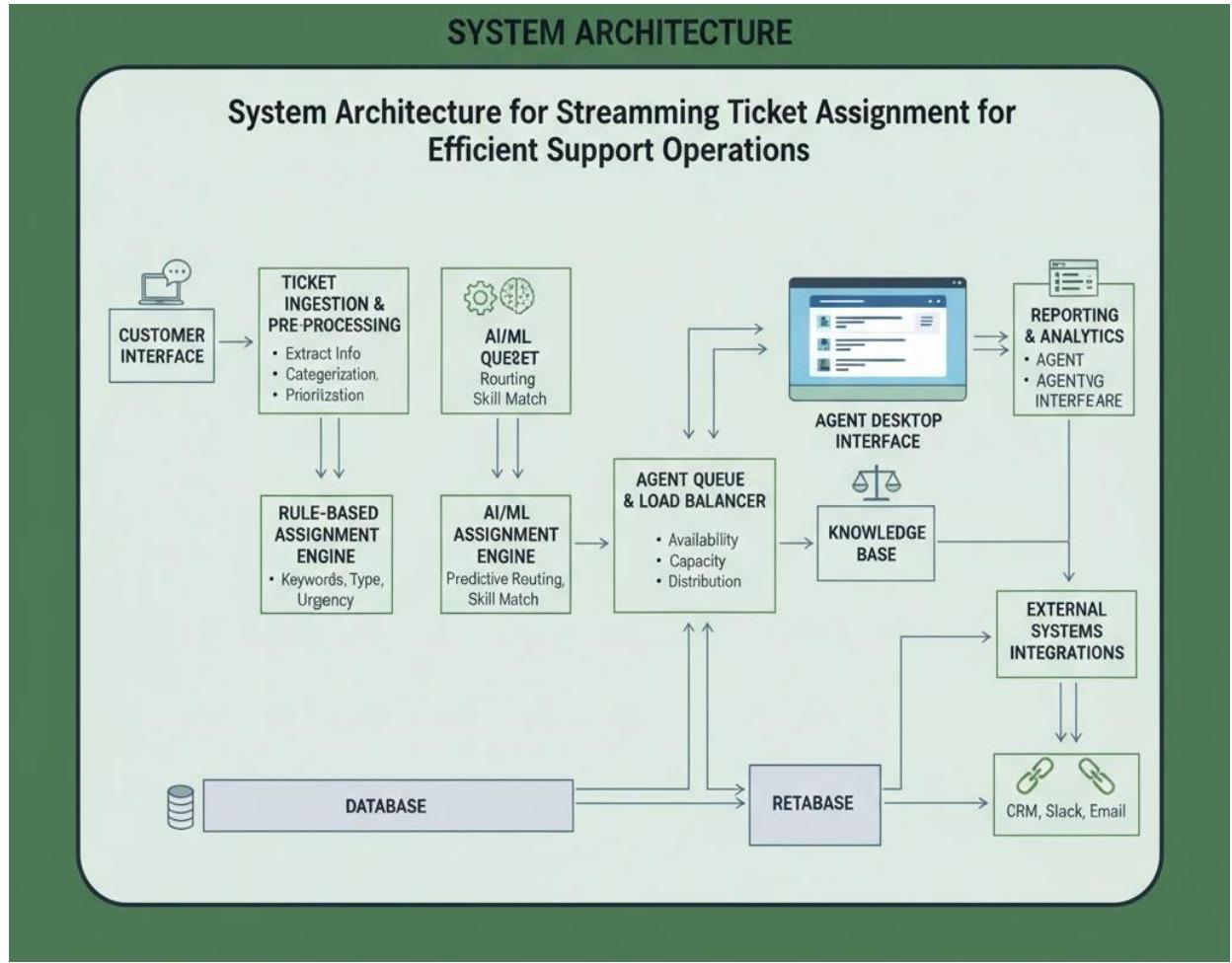
The new system introduces an **automated ticket assignment engine** integrated with the existing ticketing platform (e.g., Zendesk, Jira Service Management, or ServiceNow).

It leverages **AI-based rules**, **agent skill mapping**, and **real-time availability data** to assign tickets intelligently.

4.2 Key Features

- **Automated Routing:** Assigns incoming tickets based on predefined criteria such as category, priority, and agent expertise.
 - **Skill-Based Mapping:** Matches tickets to agents best suited for the issue type.
 - **Load Balancing:** Distributes workload evenly among available agents.
 - **Escalation Rules:** Automatically reroutes tickets if not acknowledged or resolved within defined SLAs.
 - **Analytics Dashboard:** Provides visibility into ticket volume, assignment efficiency, and agent performance.
-

5. System Architecture

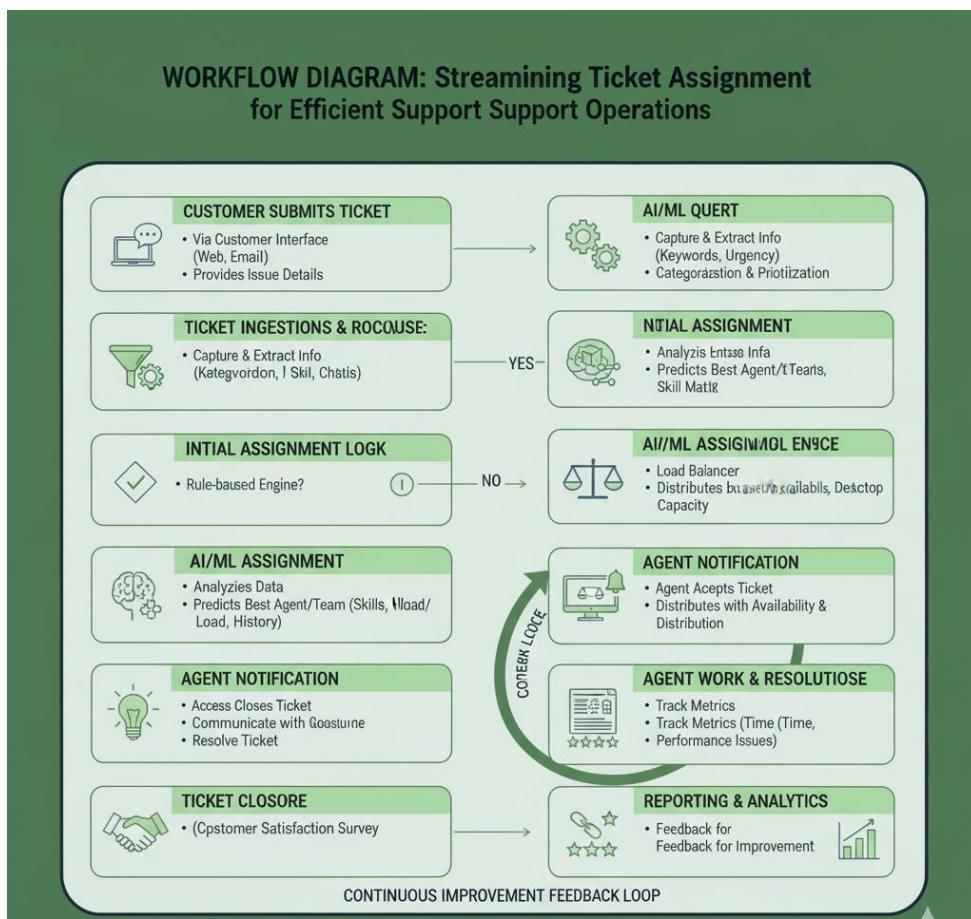


5.1 Components

- **Ticket Intake Module:** Captures tickets from all channels.
- **Assignment Engine:** Applies rule-based and AI-driven logic to determine optimal routing.
- **Agent Database:** Stores skills, workload, and availability information.
- **Reporting Module:** Generates KPIs for continuous improvement.

5.2 Workflow Diagram

1. Ticket Created →
2. Ticket Classification (by category, priority, keywords) →
3. Assignment Engine Evaluates →
4. Best-fit Agent Selected →
5. Notification Sent →
6. Resolution and Feedback Tracked.



6. Implementation Plan

Phase	Description	Timeline
Phase 1	Requirement gathering and process mapping	Week 1-2
Phase 2	Design of assignment logic and agent skill matrix	Week 3–4
Phase 3	Development and integration with existing support tool	Week 5–8
Phase 4	Testing and validation (UAT)	Week 9–10
Phase 5	Go-live and performance monitoring	Week 11–12

Implementation

Create Users

1. Open service now.
2. Click on All >> search for users
3. Select Users under system security
4. Click on new

5. Fill the following details to create a new user

The screenshot shows the 'User' creation form for 'Manne Nirajan'. The 'User ID' is set to 'manne.niranjan'. Other fields include 'First name' (Manne), 'Last name' (Niranjan), 'Title' (empty), 'Department' (empty), 'Email' (niranjanreddymanne2507@gr...), 'Language' (None), 'Calendar integration' (Outlook), 'Time zone' (System (America/Los Angeles)), 'Date format' (System (yyyy-MM-dd)), 'Business phone' (empty), 'Mobile phone' (empty), and 'Photo' (Click to add...). Active status is checked. There are also checkboxes for 'Password needs reset', 'Locked out', 'Web service access only', and 'Internal Integration User'.

6. Click on submit

Create one more user:

7. Create another user with the following details

The screenshot shows the 'User' creation form for 'Katherine Pierce'. The 'User ID' is set to 'Katherine Pierce'. Other fields include 'First name' (Katherine), 'Last name' (Pierce), 'Title' (empty), 'Department' (empty), 'Email' (empty), 'Language' (None), 'Calendar integration' (Outlook), 'Time zone' (System (America/Los_Angeles)), 'Date format' (System (yyyy-MM-dd)), 'Business phone' (empty), 'Mobile phone' (empty), and 'Photo' (Click to add...). Active status is checked. There are also checkboxes for 'Password needs reset', 'Locked out', 'Web service access only', and 'Internal Integration User'.

8. Click on submit

Create Groups

1. Open service now.
2. Click on All >> search for groups

3. Select groups under system security
4. Click on new
5. Fill the following details to create a new group

The screenshot shows a user interface for creating a new group. At the top left is a back arrow and a 'Group certificates' title. On the right are three small icons. Below the title are four input fields: 'Name' containing 'certificates', 'Manager' containing 'Katherine Pierce' with a search icon, 'Group email' with a placeholder, and 'Parent' with a placeholder. There is also a large empty 'Description' text area.

6. Click on submit

Create one more group:

1. Create another group with the following details

The screenshot shows a user interface for creating another group. It has fields for 'Name' (Platform), 'Manager' (Manne Niranjan) with a search icon, 'Group email' with a placeholder, and 'Parent' with a placeholder. A large 'Description' text area is also present.

2. Click on submit

Create Roles

1. Open service now.
2. Click on All >> search for roles
3. Select roles under system security
4. Click on new

5. Fill the following details to create a new role

Name	Certification_role	Application	Global	
Requires Subscription	Unspecified	Elevated privilege	<input type="checkbox"/>	
Description	Can deal with certification issues			

6. Click on submit

Create one more role:

Create another role with the following details

Name	Platform_role	Application	Global	
Requires Subscription	Unspecified	Elevated privilege	<input type="checkbox"/>	
Description	Can deal with platform related issues			

Click on submit

Create Table

1. Open service now.
2. Click on All >> search for tables
3. Select tables under system definition
4. Click on new
5. Fill the following details to create a new table
Label : Operations related
Check the boxes Create module & Create mobile module
6. Under new menu name : Operations related

7. Under table columns give the columns

Q	Column label	Type	Reference	Max length	Default value	Display
	Created by	String	(empty)	40		false
	Created	Date/Time	(empty)	40		false
	Sys ID	Sys ID (GUID)	(empty)	32		false
	Updates	Integer	(empty)	40		false
	Updated by	String	(empty)	40		false
	Updated	Date/Time	(empty)	40		false
✗	Assigned to group	Reference	Group	40		false
✗	Assigned to user	Reference	User	32		false
✗	Comment	String	(empty)	40		false
✗	Issue	String	(empty)	40		false
✗	Name	String	(empty)	40		false
✗	Priority	String	(empty)	40		false
✗	Service request No	String	(empty)	40	javascript:getNextObjNumberPadded();	false
✗	Ticket raised Date	Date/Time	(empty)	40		false
+	Insert a new row...					

8. Click on submit

Create choices for the issue filed by using form design

Choices are

- unable to login to platform
- 404 error
- regarding certificates
- regarding user expired

Assign roles & users to certificate group

1. Open service now.
2. Click on All >> search for tables
3. Select tables under system definition
4. Select the certificates group
5. Under group members
6. Click on edit

7. Select Katherine Pierce and save
8. Click on roles
9. Select Certification_role and save

Assign roles & users to platform group

1. Open service now.
2. Click on All >> search for tables
3. Select tables under system definition
4. Select the platform group
5. Under group members
6. Click on edit
7. Select Manne Niranjan and save
8. Click on roles
9. Select Platform_role and save

Assign role to table

1. Open service now.
2. Click on All >> search for tables
3. Select operations related table
4. Click on the Application Access
5. Click on u_operations_related read operation
6. Click on the profile on top right side
7. Click on elevate role

8. Click on security admin and click on update
9. Under Requires role
10. Double click on insert a new row
11. Give platform role
12. And add certificate role
13. Click on update

Access Control Rules allow access to the specified resource if *all three* of these checks evaluate to true:

1. The user has one of the roles specified in the **Role** list, or the list is empty.
2. Conditions in the **Condition** field evaluate to true, or conditions are empty.
3. The script in the **Script** field (advanced) evaluates to true, or sets the variable "answer" to true, or is empty.

The three checks are evaluated independently in the order displayed above.

[More Info](#)

Role
u_operations_related_user
Platform_role
Certification_role
Insert a new row...

14. Click on `u_operations_related` write operation
15. Under Requires role
16. Double click on insert a new row
17. Give platform role
18. And add certificate role

Create ACL

1. Open service now.
2. Click on All >> search for ACL

3. Select Access Control(ACL) under system security
4. Click on new
5. Fill the following details to create a new ACL

The screenshot shows the 'Access Control' configuration interface. The title bar displays the path 'Access Control u_operations_related.u_service_request_no'. The main form contains the following fields:

- Type: record
- Operation: write
- Application: Global
- Active: checked
- Admin overrides: checked
- Protection policy: -- None --
- Name: Operations related [u_operations_related]
- Description: (empty)
- Condition: 4 records match condition
 - Add Filter Condition
 - Add "OR" Clause
- choose field --
- oper --
- value --

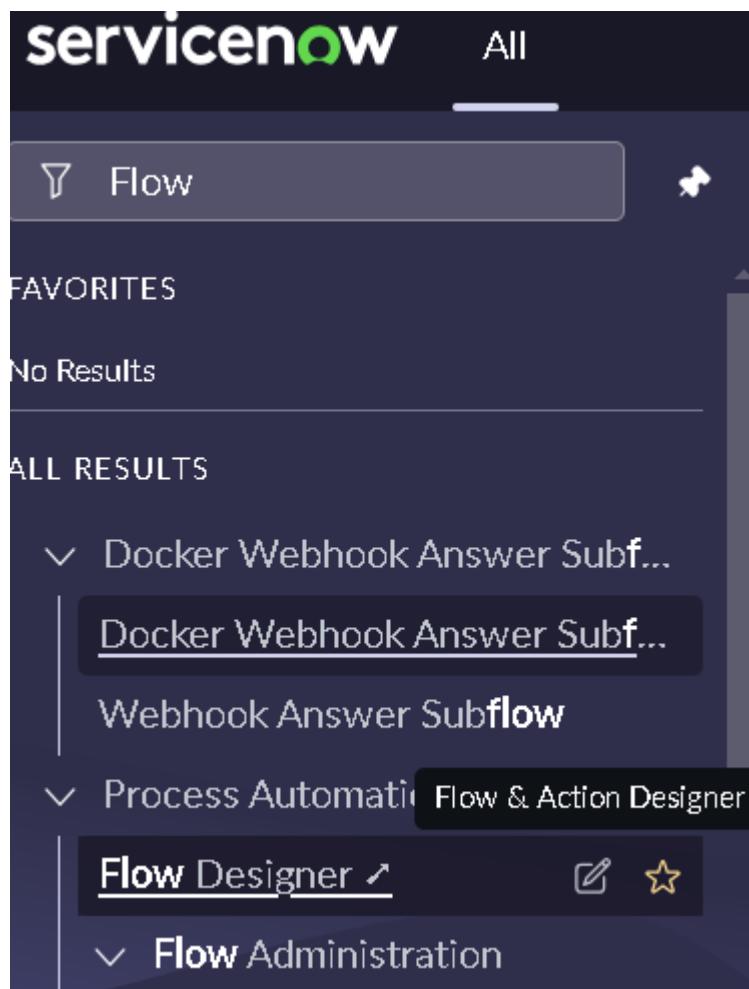
6. Scroll down under requires role
7. Double click on insert a new row
8. Give admin role
9. Click on submit
10. Similarly create 4 acl for the following fields

<input type="checkbox"/>	u_operations_related.u_priority	write	record	true	admin	2024-04-16 22:32:12
	u_operations_related.u_ticket_raised_date	write	record	true	admin	2024-04-16 22:30:22
	u_operations_related.u_name	write	record	true	admin	2024-04-16 22:29:00
	u_operations_related.u_issue	write	record	true	admin	2024-04-16 22:23:31
	u_operations_related.u_service_request_no	write	record	true	admin	2024-04-16 22:17:14

Create a Flow to Assign operations ticket to group

1. Open service now.
2. Click on All >> search for Flow Designer
3. Click on Flow Designer under Process Automation.

4. After opening Flow Designer Click on new and select Flow.
5. Under Flow properties Give Flow Name as “ Regarding Certificate”.
6. Application should be Global.
7. Select Run user as “ System user ” from that choice.
8. Click on Submit.



The screenshot shows the ServiceNow Flow Designer interface. At the top, there's a navigation bar with links for Flows, Subflows, Actions, Executions, Connections, and Help. A search bar is also present. On the right, a dropdown menu under 'New' is open, showing options: Flow (which is selected and highlighted in blue), Subflow, Action, and Data Stream. Below the navigation, a table lists existing flows. The columns include Name, Internal name, Application, Status, Active, Updated, and Updated by. Three flows are listed:

Name	Internal name	Application	Status	Active	Updated	Updated by
Standard Laptop task	standard_laptop_task	Global	Published	true	2024-04-16 23:33:53	admin
Email Sending For P1	email_sending_for_p1	Global	Published	false	2024-04-16 04:22:31	admin
Daily Task Reminder	daily_task_reminder	Global	Draft	false	2024-04-16 00:08:03	admin

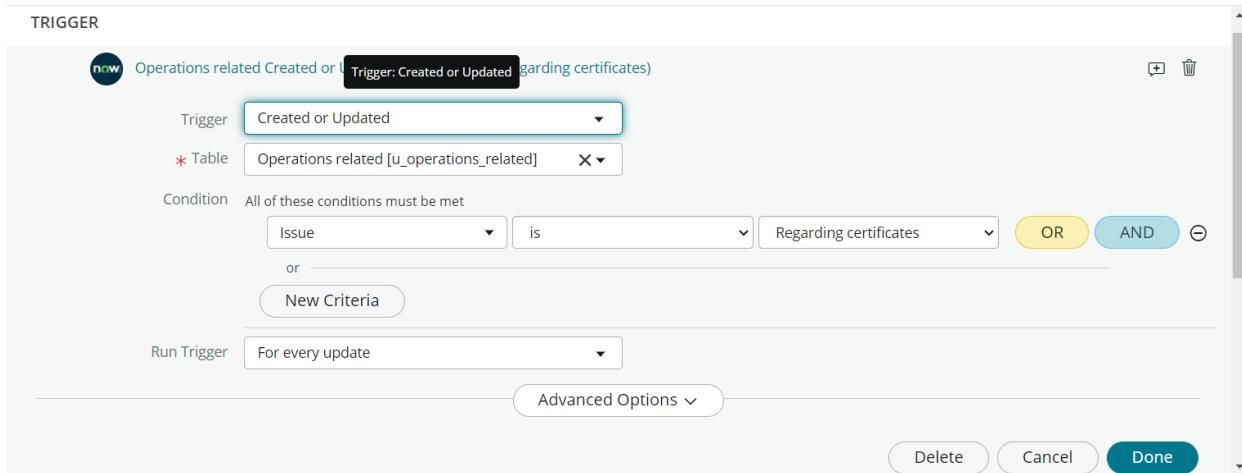
A modal window titled 'Flow properties' is open in the center. It contains fields for 'Flow name' (set to 'Regarding certificates'), 'Description' (a large text area), 'Application' (set to 'Global'), 'Protection' (set to '-- None --'), and 'Run As' (set to 'System User'). At the bottom of the modal are 'Cancel' and 'Submit' buttons.

1. Click on Add a trigger
2. Select the trigger in that Search for “create or update a record” and select that.
3. Give the table name as “ Operations related ”.
4. Give the Condition as
Field : issue

Operator : is

Value : Regrading Certificates

5. After that click on Done.



6. Now under Actions.

7. Click on Add an action.

8. Select action in that search for "Update Record".

9. In Record field drag the fields from the data navigation from left side

10. Table will be auto assigned after that

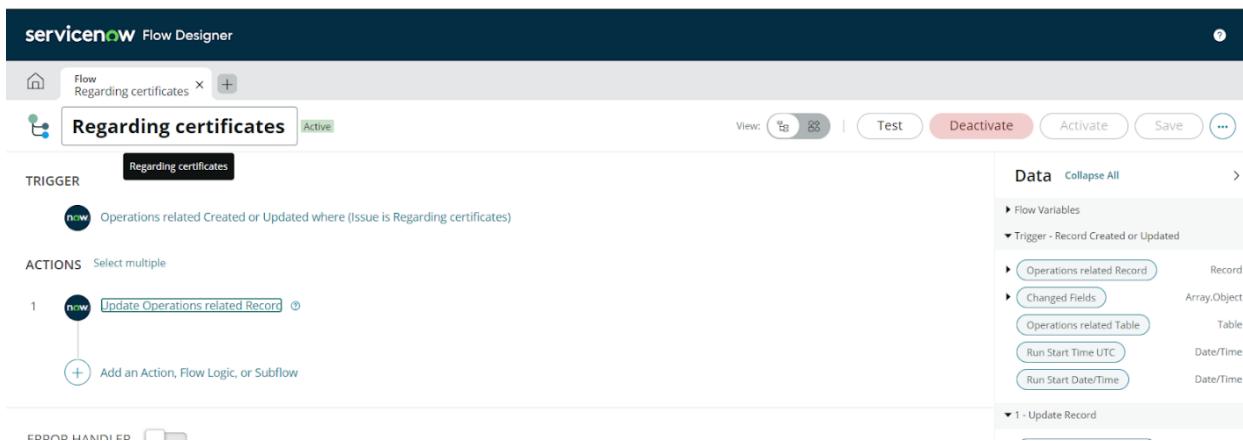
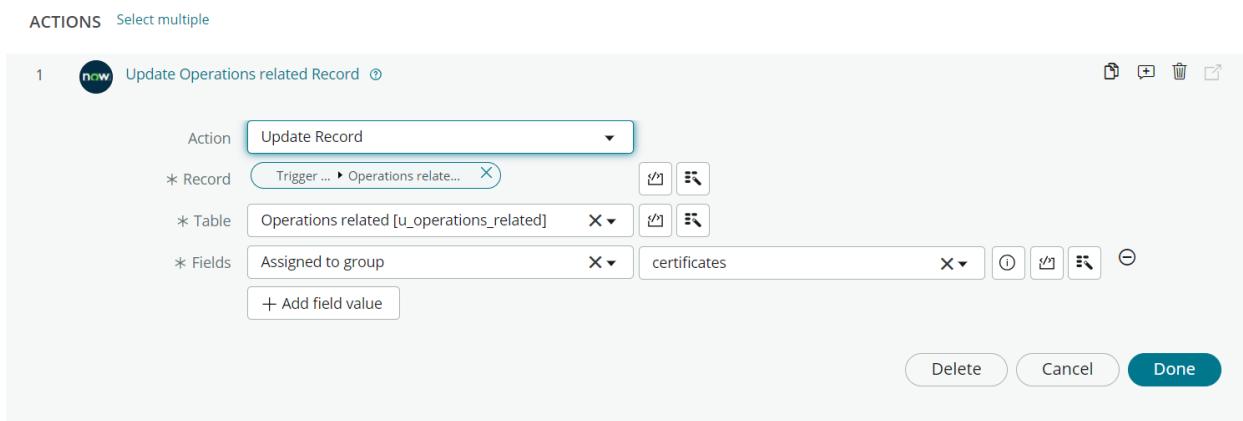
11. Give the field as "Assigned to group"

12. Give value as "Certificates"

13. Click on Done.

14. Click on Save to save the Flow.

15. Click on Activate.



Create a Flow to Assign operations ticket to Platform group

1. Open service now.
2. Click on All >> search for Flow Designer
3. Click on Flow Designer under Process Automation.
4. After opening Flow Designer Click on new and select Flow.
5. Under Flow properties Give Flow Name as “ Regarding Platform ”.
6. Application should be Global.

7. Select Run user as “ System user ” from that choice.

8. Click on Submit.

1. Click on Add a trigger

2. Select the trigger in that Search for “create or update a record” and select that.

3. Give the table name as “ Operations related ”.

4. Give the Condition as

Field : issue

Operator : is

Value : Unable to login to platform

5. Click on New Criteria

Field : issue

Operator : is

Value : 404 Error

6. Click on New Criteria

Field : issue

Operator : is

Value : Regrading User expired

7. After that click on Done.

8. Now under Actions.

9. Click on Add an action.
 10. Select action in that search for “ Update Record ”.
 11. In Record field drag the fields from the data navigation from left side
 12. Table will be auto assigned after that
 13. Give the field as “ Assigned to group ”.
 14. Give value as “ Platform ”.
 15. Click on Done.
 16. Click on Save to save the Flow.
 17. Click on Activate.
-

7. Performance Metrics

Metric	Baseline	Target	Improvement
Average Ticket Assignment Time	10 mins	< 1 min	
Average First Response Time	45 mins	20 mins	
Agent Utilization Rate	60%	85%	
SLA Compliance Rate	80%	95%	
Customer Satisfaction (CSAT)	82%	92%	

8. Risk Management

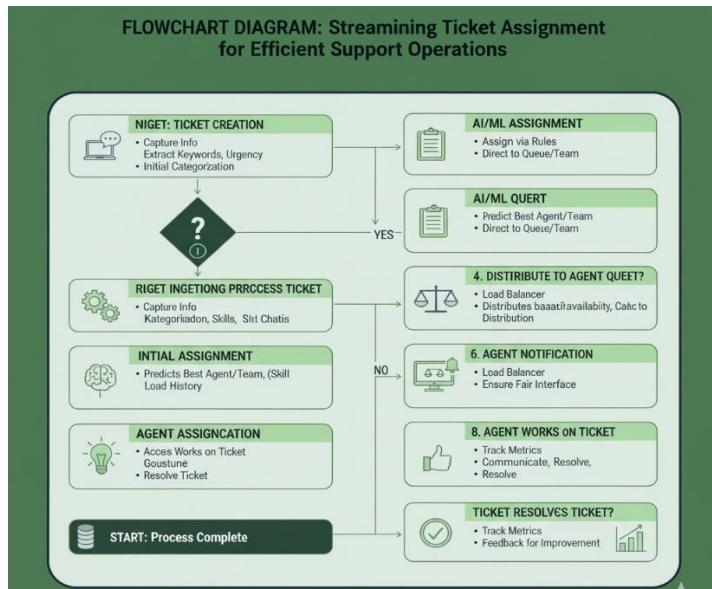
Risk	Impact	Mitigation Strategy
Incorrect rule configuration	High	Conduct multiple test iterations before deployment

Agent resistance to change	Medium	Provide training and involve agents early
Integration issues with legacy tools	High	Engage IT team for API-level validation
Data privacy concerns	Medium	Ensure compliance with GDPR and internal security policies

9. Expected Benefits

- **Operational Efficiency:** Automated routing reduces manual workload and delays.
 - **Improved Accuracy:** Skill-based matching enhances first-contact resolution rates.
 - **Employee Productivity:** Balanced workload reduces burnout and idle time.
 - **Enhanced Customer Experience:** Faster responses and consistent service quality.
 - **Data-Driven Insights:** Management dashboards provide actionable performance metrics.
-

10. Flow Chart



11. Conclusion

The **Streamlined Ticket Assignment System** provides a sustainable, scalable solution to optimize support operations. By reducing manual intervention, improving accuracy, and leveraging automation, the support team can deliver faster and more consistent service experiences. This project aligns with the organization's digital transformation goals and customer-centric strategy.

12. Future Scope

The *Streamlined Ticket Assignment System* establishes a strong foundation for automating and optimizing support operations. However, there remains significant potential for future enhancements and expansion to further improve efficiency, accuracy, and scalability.

1. AI-Driven Predictive Assignment

In future iterations, the system can incorporate **machine learning and predictive analytics** to automatically identify patterns in ticket routing and resolution. This would allow the platform to predict the best agent or team based on historical data, ticket complexity, and performance outcomes.

2. Integration with Chatbots and Virtual Assistants

By integrating **AI-powered chatbots**, the system can handle basic customer queries before generating tickets. This will help reduce ticket volume, improve response time, and allow human agents to focus on complex issues.

3. Real-Time Agent Performance Analytics

Enhancing the analytics dashboard with **real-time monitoring and performance forecasting** can help supervisors proactively manage workloads, identify burnout risks, and maintain balanced agent utilization.

4. Natural Language Processing (NLP) Enhancements

Future updates can leverage **advanced NLP algorithms** for more accurate ticket classification, intent recognition, and automated tagging—ensuring faster and more precise routing decisions.

5. Cross-Platform Integration

Expanding integration capabilities with third-party platforms such as CRM systems, ERP tools, and social media support channels will provide a **unified service experience** and ensure seamless communication across departments.

6. Mobile Accessibility

Developing a **mobile version** of the support dashboard will enable agents and managers to view, assign, and resolve tickets on the go, increasing flexibility and responsiveness.

7. Continuous Learning and Optimization

The system can adopt a **self-learning mechanism** where it continuously refines its routing logic based on feedback loops—analyzing closed tickets, resolution success rates, and customer satisfaction data.

8. Enhanced Security and Compliance

Future versions can include **advanced access control, encryption, and compliance modules** to ensure data security and adherence to global standards such as GDPR, HIPAA, or ISO 27001.

Would you like me to make this **shorter and more formal** (for inclusion in a professional report) or keep it **detailed and descriptive** (for academic or presentation purposes)?