



NM-1051 SERVICENOW ADMINISTRATOR

STREAMLING TICKET ASSIGNMENT FOR EFFICIENT SUPPORT OPERATION

A PROJECT REPORT

*Submitted By*

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# **Acknowledgment**

**I would like to express my sincere gratitude to everyone who contributed to the successful completion of the *Streamlined Ticket Assignment for Efficient Support Operations* project.**

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# Streamlined Ticket Assignment for Efficient Support Operations

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## 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.

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## 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

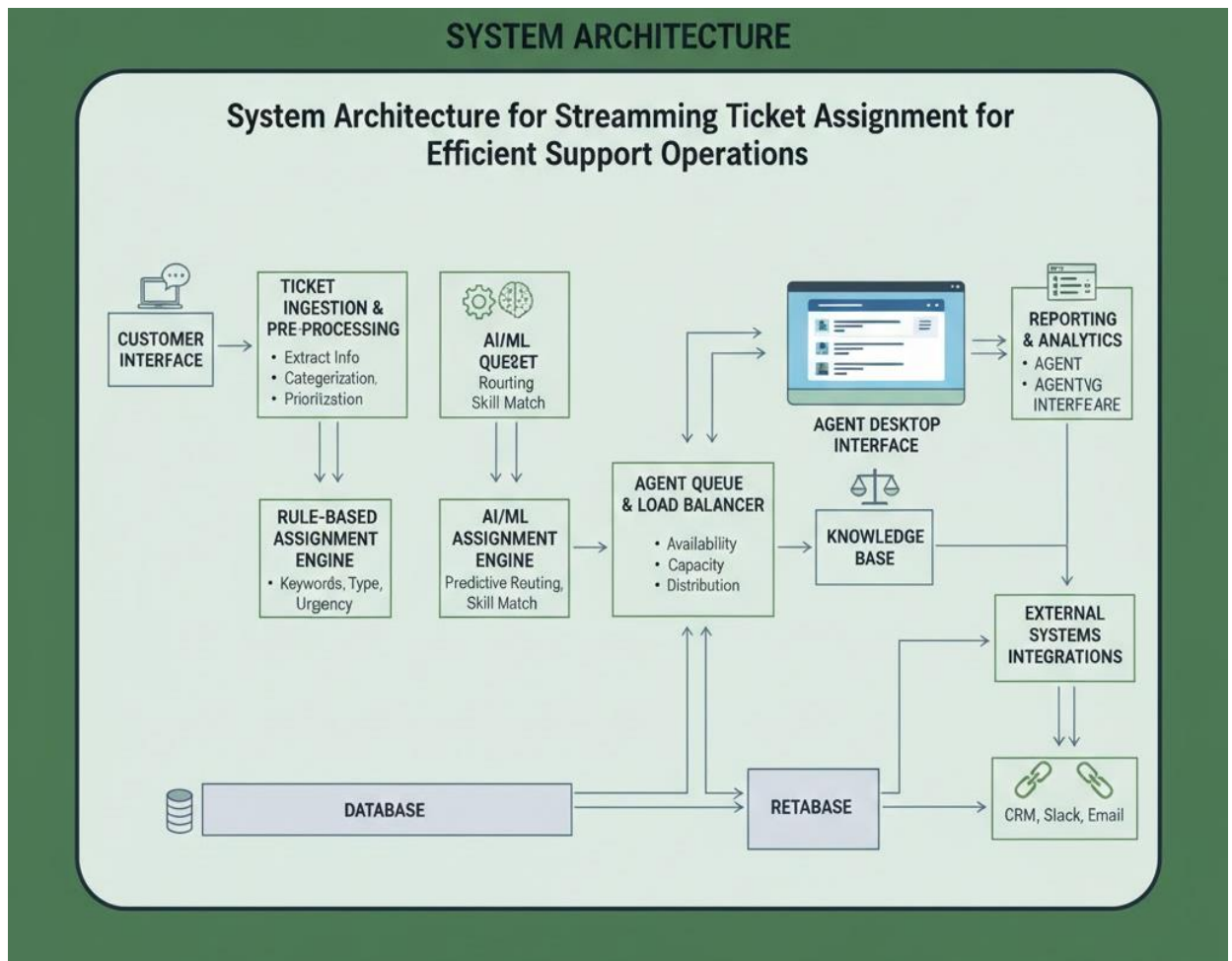
The new system introduces an **automated ticket assignment engine** integrated with the existing ticketing platform (e.g., Zendesk, Jira Service Management, or ServiceNow).

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

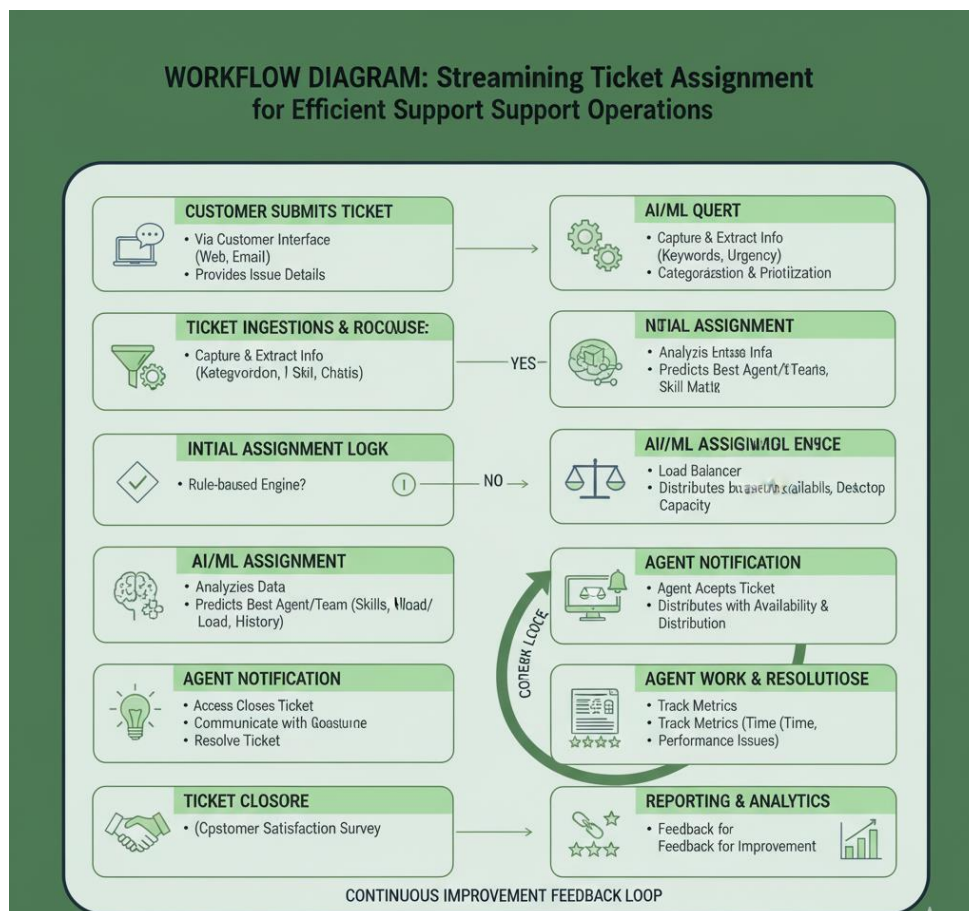


## 5.1 Components

- **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.



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## 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 a user creation form for 'Manne Niranja'. The form is divided into two columns. The left column contains fields for User ID (manne.niranjana), First name (Manne), Last name (Niranjana), Title (empty), Department (empty), Password needs reset (checkbox), Locked out (checkbox), Active (checkbox checked), Web service access only (checkbox), and Internal Integration User (checkbox). The right column contains fields for Email (niranjareddymanne2507@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...). At the top right, there are buttons for Update, Set Password, and Delete.

6. Click on submit

Create one more user:

7. Create another user with the following details

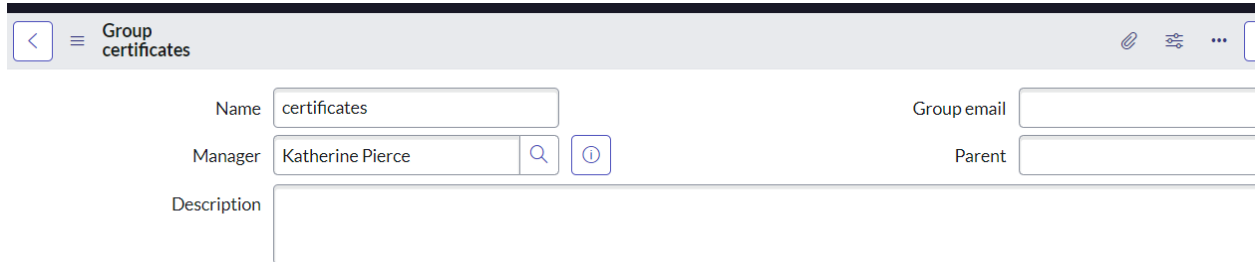
The screenshot shows a user creation form for 'Katherine Pierce'. The form is divided into two columns. The left column contains fields for User ID (Katherine Pierce), First name (Katherine), Last name (Pierce), Title (empty), Department (empty), Password needs reset (checkbox), Locked out (checkbox), Active (checkbox checked), Web service access only (checkbox), and Internal Integration User (checkbox). The right column contains fields for 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...). At the top right, there are buttons for Update, Set Password, and Delete.

8. Click on submit

## Create Groups

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

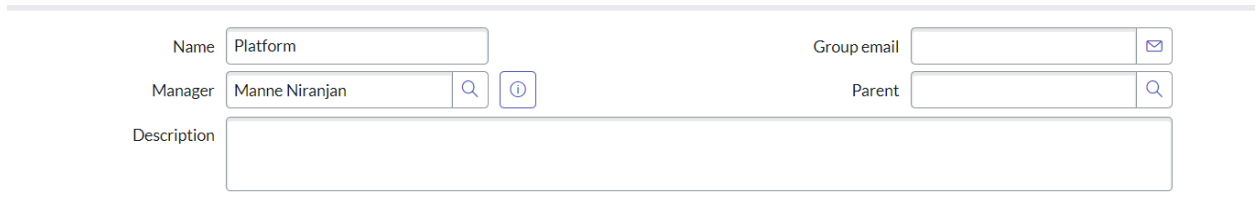
3. Select groups under system security
4. Click on new
5. Fill the following details to create a new group



6. Click on submit

Create one more group:

1. Create another group with the following details




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

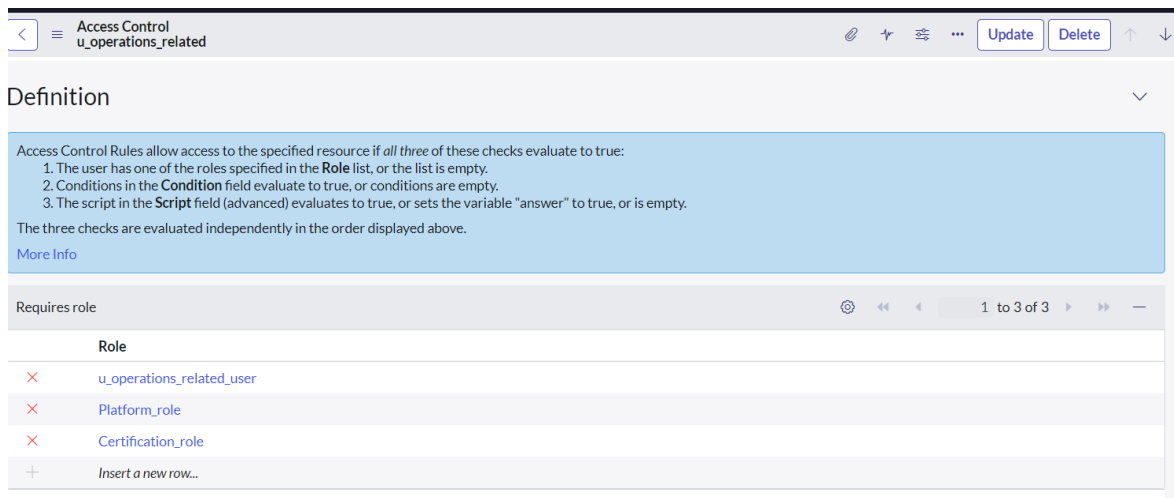
## **Assign roles & users to platform group**

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 Niranjana 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



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

Access Control  
u\_operations\_related.u\_service\_request\_no

\* Type: record Application: Global

\* Operation: write Active: ☒

Admin overrides: ☒ Advanced: ☐

Protection policy: -- None --

\* Name: Operations related [u\_operations\_related] Service request No

Description

Condition: 4 records match condition

Add Filter Condition Add "OR" Clause

-- choose field -- -- oper -- -- value --

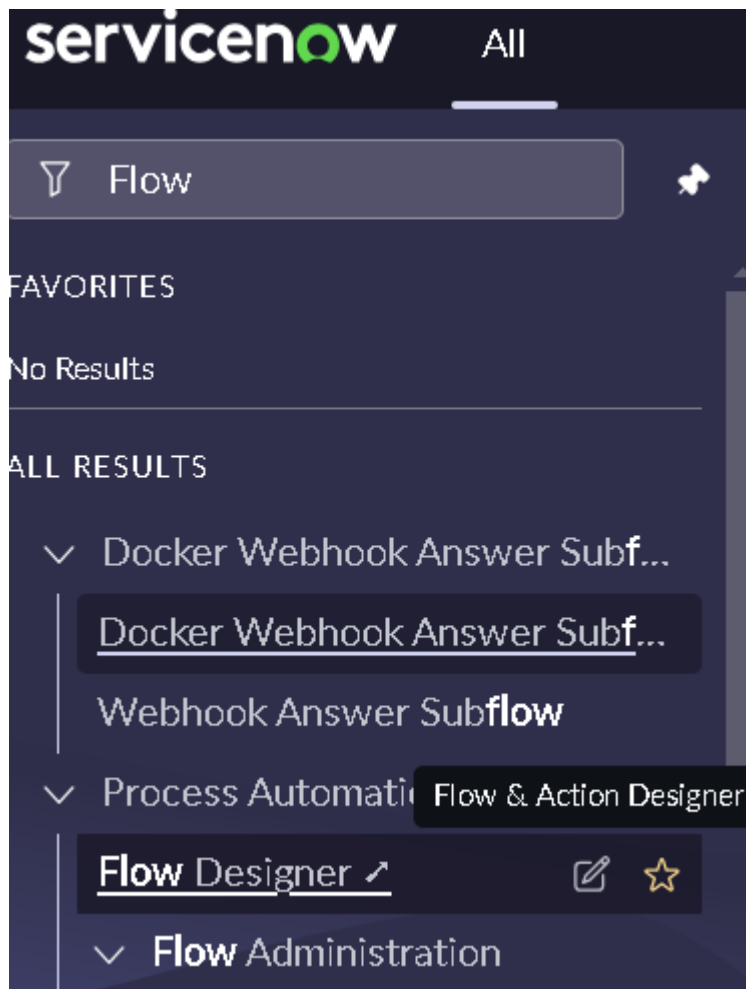
6. Scroll down under requires role
7. Double click on insert a new row
8. Give admin role
9. Click on submit
10. Similarly create 4 acl for the following fields

<input type="checkbox"/>	<input type="radio"/>	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

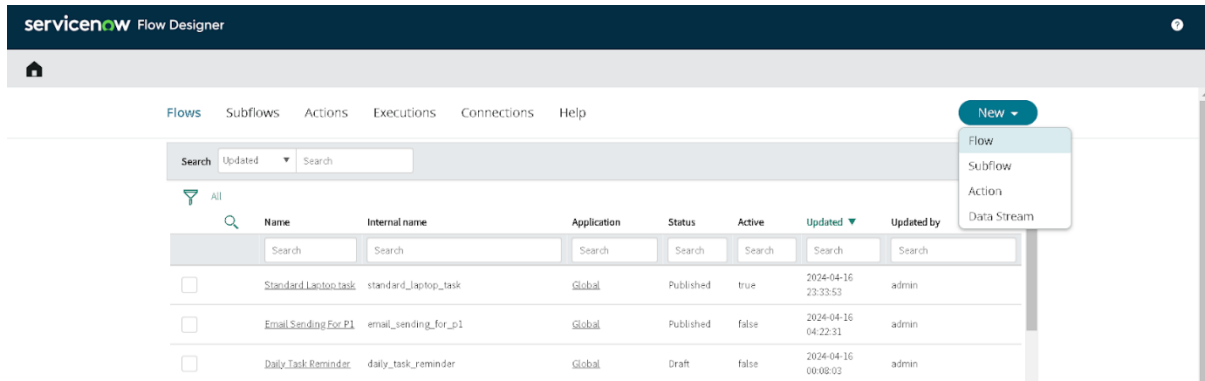
## Create a Flow to Assign operations ticket to group

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.







## Flow properties

\* Flow name

Regarding certificates

Description

Describe your flow

Application

Global

Protection

-- None --

Run As

System User

Cancel

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 : Regrading Certificates

5. After that click on Done.

The screenshot shows the 'TRIGGER' configuration window. At the top, it says 'Operations related Created or Updated (Trigger: Created or Updated regarding certificates)'. Below this, the 'Trigger' is set to 'Created or Updated'. The 'Table' is 'Operations related [u\_operations\_related]'. The 'Condition' is 'All of these conditions must be met', with a single condition: 'Issue' is 'Regarding certificates'. There are 'OR' and 'AND' buttons, and a 'New Criteria' button. The 'Run Trigger' is set to 'For every update'. At the bottom, there is an 'Advanced Options' button and 'Delete', 'Cancel', and 'Done' buttons.

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.

ACTIONS [Select multiple](#)

1

now

Update Operations related Record

🔗

🗑️

⛶

🗑️

🔗

Action

Update Record

▼

\* Record

Trigger ... ▶ Operations relate...

✕

🗑️

🔗

\* Table

Operations related [u\_operations\_related]

✕

🗑️

🔗

\* Fields

Assigned to group

✕

certificates

✕

🕒

🗑️

🔗

⊖

+ Add field value

Delete

Cancel

Done

servicenow

Flow Designer

?

Flow

Regarding certificates

✕

+

🔗

Regarding certificates

Active

View:

🔍

🔍

Test

Deactivate

Activate

Save

...

TRIGGER

Regarding certificates

now

Operations related Created or Updated where (Issue is Regarding certificates)

ACTIONS

Select multiple

1

now

Update Operations related Record

🔗

+

Add an Action, Flow Logic, or Subflow

EDITOR HANDLER

🔍

Data

Collapse All

>

▶ Flow Variables

▼ Trigger - Record Created or Updated

▶ Operations related Record

Record

▶ Changed Fields

Array.Object

Operations related Table

Table

Run Start Time UTC

DateTime

Run Start Date/Time

DateTime

▼ 1 - Update Record

## 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%

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## 8. Risk Management

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

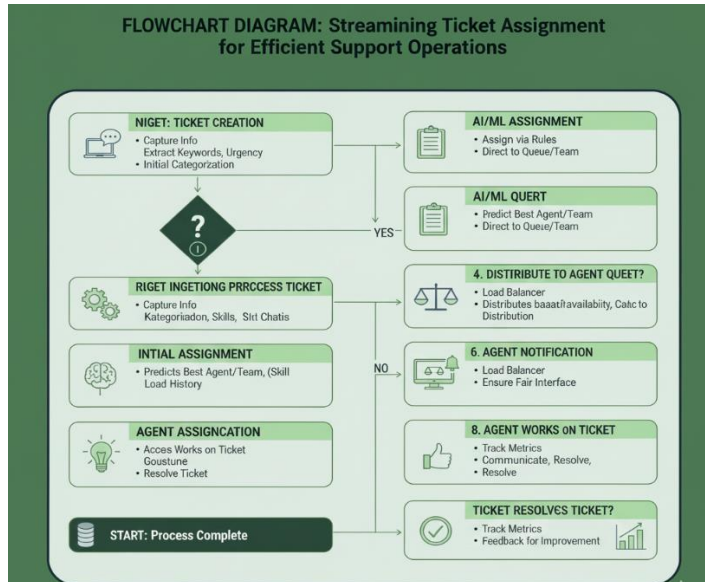
Agent resistance to change	Medium	Provide training and involve agents early
Integration issues with legacy tools	High	Engage IT team for API-level validation
Data privacy concerns	Medium	Ensure compliance with GDPR and internal security policies

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## 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.

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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)?