

STREAMLINING TICKET ASSIGNMENT FOR EFFICIENT SUPPORT OPERATIONS

1. Abstract

In IT service management, handling a large volume of incidents efficiently is crucial to maintaining high service quality and customer satisfaction. In ServiceNow, ticket assignment often relies on manual triaging or static assignment rules, which can lead to slower response times, increased SLA breaches, and unbalanced workloads among support agents.

This project aims to develop a Smart Ticket Assignment Framework within the ServiceNow platform to automate and optimize ticket distribution. By utilizing Flow Designer, Business Rules, Script Includes, and Predictive Intelligence, the system intelligently routes incidents to the most appropriate support agents or groups based on defined parameters such as ticket category, urgency, agent skill set, and real-time workload.

The proposed system eliminates manual assignment delays, improves SLA compliance, and enhances operational transparency through reporting and analytics. The project showcases how a ServiceNow Developer can leverage the platform's built-in tools and scripting capabilities to design a scalable and efficient automation framework tailored for enterprise IT support operations.

2. Introduction

2.1 Background

ServiceNow is one of the most widely used IT Service Management (ITSM) platforms globally, offering organizations the tools to manage incidents, service requests, and changes efficiently. Despite these capabilities, many organizations continue to depend on manual ticket routing or basic assignment rules.

Manual assignment introduces challenges such as:

- Delays in incident response.**
- Misrouted tickets requiring reassignment.**

- **Unequal workload among support teams.**
- **Reduced SLA performance and user satisfaction.**

To address these challenges, automation is key. Automating ticket assignment ensures that incidents are routed intelligently, improving service efficiency and allowing support teams to focus on resolution rather than administrative work.

2.2 Objective

The primary objective of this project is to design and implement an automated ticket assignment system in ServiceNow that:

- Reduces manual intervention in ticket routing.
- Automatically assigns tickets to the right agent or group based on skill and workload.
- Improves SLA adherence and team productivity.
- Provides visibility into workload distribution through dashboards and analytics.

2.3 Scope

The project focuses on:

- The Incident Management module in ServiceNow.
- Developing assignment logic using Flow Designer, Business Rules, Script Includes, and Predictive Intelligence.
- Configuring dashboards and analytics to monitor performance.
- Creating a scalable system that can later extend to Service Requests and Change Management.

3. Existing System

In the current ServiceNow configuration:

- 1.Tickets are created manually via the Service Portal, email, or integrations.
- 2.Assignment is typically handled using Assignment Rules or default groups.
- 3.Routing is based on limited static parameters (e.g., Category = Network → Network Team).

- 4. No dynamic consideration of agent availability, skills, or current workload exists.**
- 5. Reassignment occurs frequently, leading to delays and SLA breaches.**

Limitations

- Manual reassignment increases operational overhead.**
 - Agents are sometimes overloaded while others remain underutilized.**
 - SLA timelines are affected by routing inefficiencies.**
 - No centralized visibility of assignment performance.**
-

4. Proposed System

4.1 System Overview

The proposed Smart Ticket Assignment System introduces automated and intelligent routing logic within ServiceNow. It dynamically analyzes incident details and assigns tickets based on:

- **Incident Category and Priority**
- **Agent Skill Set (from cmn_skill table)**
- **Agent Workload (open tickets count)**
- **SLA Urgency and Deadlines**

The system runs automatically when a ticket is created, using a Flow Designer Flow and Script Includes for logic execution.

4.2 System Features

Feature	Description
Automated Assignment	Automatically routes incidents to the right agent/team.
Skill-Based Matching	Matches incident category with agent skill records.
Workload Balancing	Fetches the number of active incidents per agent and assigns to the least loaded one.
SLA-Aware Routing	Gives higher priority to tickets close to SLA breach.

Feature	Description
Performance Dashboard	Displays assignment speed, workload balance, and SLA metrics.
Audit Trail	Logs assignment details for transparency.

4.3 System Architecture

Architecture Components:

- 1. User Interface: Service Portal / Incident Form (ticket creation).**
- 2. Trigger Point: Flow Designer or Business Rule runs on record insert.**
- 3. Logic Layer: Script Include retrieves eligible agents and evaluates workload.**
- 4. Database Tables:**
 - **incident** → stores ticket data.
 - **sys_user** → stores agent data.
 - **cmn_skill** → maps user skills.
 - **task_sla** → tracks SLA progress.

5. Notification Engine: Sends notifications to assigned agents.

6. Reporting Layer: Performance Analytics dashboards display metrics.

4.4 System Workflow

pgsql

1. Ticket Submitted →
2. Flow Designer Triggered →
3. Get Category, Priority, and Urgency →
4. Fetch Eligible Agents (Skill & Availability) →
5. Check Current Workload (Open Tickets) →
6. Select Agent with Lowest Load →
7. Assign Incident to Agent →
8. Notify Assigned Agent →
9. Update Analytics Dashboard

5. Methodology

5.1 Approach

This project follows the Agile SDLC methodology with iterative development and testing phases. Each sprint includes

configuration, scripting, and testing cycles within the ServiceNow Developer Instance.

5.2 Development Phases

Phase	Description
Requirement Analysis	Identify assignment rules, agent criteria, and SLA parameters.
System Design	Define logical flow, database schema, and API requirements.
Implementation	Develop Flow Designer actions, Business Rules, and Script Includes.
Testing	Validate logic and ensure correct assignment accuracy.
Deployment	Move configuration to production using Update Sets.
Monitoring	Use dashboards to measure impact and optimize rules.

7. Implementation

User - Manne Nirajan

User ID: manne.nirajan

First name: Manne

Last name: Nirajan

Title: [empty]

Department: [empty]

Password: [empty]

Identity type: Human

Language: -- None --

Calendar integration: Outlook

Time zone: System (America/Los_Angeles)

Date format: System (yyyy-MM-dd)

Business phone: [empty]

Mobile phone: [empty]

Photo: Click to add...

Active:

Internal Integration User:

Related Links:

- [View linked accounts](#)
- [View Subscriptions](#)
- [Reset a password](#)

Entitled Custom Tables: Roles (1), Groups (1), Delegates, Subscriptions, User Client Certificates

Table: Application Role

System Status Bar: SBIN +2.02%, 02:42, 29-10-2025

User - Katherine Pierce

User ID: Katherine Pierce

First name: Katherine

Last name: Pierce

Title: [empty]

Department: [empty]

Identity type: Human

Language: -- None --

Calendar integration: Outlook

Time zone: System (America/Los_Angeles)

Date format: System (yyyy-MM-dd)

Business phone: [empty]

Mobile phone: [empty]

Photo: Click to add...

Active:

Internal Integration User:

Related Links:

- [View linked accounts](#)
- [View Subscriptions](#)
- [Reset a password](#)

Entitled Custom Tables: Roles, Groups, Delegates, Subscriptions, User Client Certificates

Table: Application Role

System Status Bar: NIFTY -0.43%, 02:42, 29-10-2025

Group - certificates

Name: certificates

Manager: Katherine Pierce

Description:

Group email:

Parent:

Update Delete

Roles Group Members Groups

Created Search Edit...

Group = certificates

Created	Role	Granted by	Inherits
No records to display			

Humid Now

Search

02:46 29-10-2023

Servicenow - Platform | Group

Group - Platform

Name: Platform

Manager: Manne.Niranjan

Description:

Group email:

Parent:

Update Delete

Roles (1) Group Members (1) Groups

Created Search Actions on selected rows... Edit...

Created	Role	Granted by	Inherits
2025-10-24 08:35:40	Platform_role	(empty)	true

1 to 1 of 1

The screenshot shows the ServiceNow interface for creating a new role. The title bar says "Role - Certifications_role". The main form has fields for "Name" (Certifications_role), "Application" (Global), and "Description" (Can deal with certification issues). Below the form is a "Related Links" section with tabs for "Contains Roles", "Applications with Role", "Modules with Role", and "Custom Tables". A search bar and a "New" button are also present. The status bar at the bottom shows weather (31°C, Mostly cloudy), system icons, and the date/time (29-10-2025).

The screenshot shows the ServiceNow interface for creating a new role. The title bar says "Role - Platform_role". The main form has fields for "Name" (Platform_role), "Application" (Global), and "Description" (Can deal with platform related issues). Below the form is a "Related Links" section with tabs for "Contains Roles", "Applications with Role", "Modules with Role", and "Custom Tables". A search bar and a "New" button are also present. The status bar at the bottom shows weather (31°C, Mostly cloudy), system icons, and the date/time (29-10-2025).

Servicenow All Favorites History Workspaces Admin Tables Search Actions on selected rows... New

All > Update name is not empty

Label	Name	Extends table	Extensible	Updated
Adaptive Authentication Event	adaptive_auth_event	(empty)	false	2025-08-07 13:09:41
Agent Assist Recommendation	agent_assist_recommendation	Application File	false	2025-08-07 13:11:07
MID Server File	agent_file	(empty)	false	2025-08-07 12:56:09
Record Producer Configuration	aisa_rp_config	Application File	false	2025-08-07 13:14:39
Search Actions	aisa_ui_action	Application File	false	2025-08-07 13:14:39
AI Search ACL Overrides	ais_ac_overrides	Application File	false	2025-08-07 12:39:52
AI Search Active Table Ingestion Tracker	ais_active_table_ingestion_tracker	(empty)	false	2025-08-07 12:39:51
AI Search Async Genius Result	ais_async_genius_result	(empty)	false	2025-08-07 12:39:55
AI Search Async Request	ais_async_request	(empty)	false	2025-08-07 12:39:55
AI Search Child Table	ais_child_table	Application File	false	2025-08-07 12:39:53
AI Search Configuration Attribute	ais_configuration_attribute	(empty)	false	2025-08-07 12:39:51
AI Search Connection	ais_connection	(empty)	false	2025-08-07 12:39:55
AI Search Country To Search Language	ais_country_to_search_language	Application File	false	2025-08-07 12:39:55
Custom Matcher	ais_custom_matcher	Application File	false	2025-08-07 12:39:53
AI Search Indexed Source	ais_datasource	Application File	false	2025-08-07 12:39:54
AI Search Indexed Source Attribute	ais_datasource_attribute	Application File	false	2025-08-07 12:39:51
AI Search Indexed Source Field Attribute	ais_datasource_field_attribute	Application File	false	2025-08-07 12:39:52
AI Search Indexed Source Statistics	ais_datasource_stats	(empty)	false	2025-08-07 12:39:52
AI Search Dictionary	ais_dictionary	Application File	false	2025-08-07 12:39:51
AI Search Dictionary Term	ais_dictionary_term	Application File	false	2025-08-07 12:39:54

1 to 20 of 5,373

31°C Mostly cloudy Search ENG IN 02:51 29-10-2025

Servicenow All Favorites History Workspaces Admin Tables Search Actions on selected rows... New

All > Update name is not empty > Name >= operation > Label starts with operations

Label	Name	Extends table	Extensible	Updated
Operations related	u_operations_related	(empty)	false	2025-10-24 08:23:51

1 to 1 of 1

31°C Mostly cloudy Search ENG IN 02:52 29-10-2025

Servicenow - Student - ServiceNow Development - Operations related | Proposed system for ...

Table - Operations related

Dictionary Entries

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

Actions: Delete, Update, Delete All Records

Related Links:

- Form Builder
- Design Form
- Layout Form
- Layout List
- Show Form

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Servicenow - Student - ServiceNow Development - Operations related | Proposed system for ...

Table - Operations related

A table is a collection of records in the database. Each record corresponds to a row in a table, and each field on a record corresponds to a column on that table. Applications use tables and records to manage data and processes. [More Info](#)

* Label: Operations related Application: Global

* Name: u_operations_related

Columns Controls Application Access

Table Columns: for text Search

Dictionary Entries

	Column label	Type	Reference	Max length	Default value	Display
X	Comment	String	(empty)	40		false
X	Updated	Date/Time	(empty)	40		false
X	Ticket raised Date	Date/Time	(empty)	40		false
X	Issue	Choice	(empty)	40		false
X	Service request No	String	(empty)	40	javascript:getNextObjNumberPadded();	false
X	Created by	String	(empty)	40		false
X	Assigned to user	Reference	User	32		false
	Sys ID	Sys ID (GUID)	(empty)	32		false
X	Created	Date/Time	(empty)	40		false
X	Assigned to group	Reference	Group	32		false
	Updated by	String	(empty)	40		false

31°C Mostly cloudy 02:52 ENG IN 29-10-2025

Servicenow - Student - ServiceNow Development - Proposed system for...

All > Update name is not empty

Tables Name Search Actions

Actions on selected rows... New

Label	Name	Extends table	Extensible	Updated
Adaptive Authentication Event	adaptive_auth_event	(empty)	false	2025-08-07 13:09:41
Agent Assist Recommendation	agent_assist_recommendation	Application File	false	2025-08-07 13:11:07
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AI Search Async Genius Result	ais_async_genius_result	(empty)	false	2025-08-07 12:39:55
AI Search Async Request	ais_async_request	(empty)	false	2025-08-07 12:39:55
AI Search Child Table	ais_child_table	Application File	false	2025-08-07 12:39:53
AI Search Configuration Attribute	ais_configuration_attribute	(empty)	false	2025-08-07 12:39:51
AI Search Connection	ais_connection	(empty)	false	2025-08-07 12:39:55
AI Search Country To Search Language	ais_country_to_search_language	Application File	false	2025-08-07 12:39:55
Custom Matcher	ais_custom_matcher	Application File	false	2025-08-07 12:39:53
AI Search Indexed Source	ais_datasource	Application File	false	2025-08-07 12:39:54
AI Search Indexed Source Attribute	ais_datasource_attribute	Application File	false	2025-08-07 12:39:51
AI Search Indexed Source Field Attribute	ais_datasource_field_attribute	Application File	false	2025-08-07 12:39:52
AI Search Indexed Source Statistics	ais_datasource_stats	(empty)	false	2025-08-07 12:39:52
AI Search Dictionary	ais_dictionary	Application File	false	2025-08-07 12:39:51
AI Search Dictionary Term	ais_dictionary_term	Application File	false	2025-08-07 12:39:54

1 to 20 of 5,373

31°C Mostly cloudy Search ENG IN 03:01 29-10-2025

Servicenow - Student - ServiceNow Development - Proposed system for...

All > Access

Access

- secure ACCESS Audit Logs
- System Applications
 - Application Cross-Scope Access
 - Application Restricted Caller A...
 - Application Design Access
- System Diagnostics
 - Session Debug
 - Debug Module Access Polic...
- System Notification
 - Email
 - Email Access Restriction
- System Security
 - Access Control (ACL)

Actions on selected rows... New

Decision Type	Operation	Type	Active	Updated by	Updated
Allow If	read	ui_page	true	admin	2019-02-20 01:02:07
Allow If	read	ui_page	true	admin	2020-03-20 15:16:15
Allow If	read	ui_page	true	admin	2019-06-14 15:13:38
Allow If	read	ui_page	true	admin	2019-02-21 02:31:44
Allow If	read	ui_page	true	admin	2020-06-12 01:45:37
Allow If	read	ui_page	true	admin	2020-03-10 03:19:22
Allow If	read	ui_page	true	admin	2023-05-29 05:26:27
Allow If	read	ui_page	true	admin	2015-10-28 02:03:33
Allow If	read	ui_page	true	admin	2016-11-14 01:14:39
Allow If	read	ui_page	true	admin	2018-03-06 10:20:09
Allow If	read	ui_page	true	admin	2020-06-15 10:43:57
Allow If	read	ui_page	true	admin	2016-01-19 12:53:23
\$spm_availability_calculation_setting	read	ui_page	true	admin	2024-02-18 06:04:39
\$studio	allow If	ui_page	true	admin	2016-01-09 16:21:38
\$upgrade_client	allow If	ui_page	true	admin	2015-07-07 12:07:02
\$upgrade_monitor	allow If	ui_page	true	admin	2020-04-08 13:33:22
\$upgrade_preview	allow If	ui_page	true	admin	2020-04-08 13:32:49
\$upgrade_temp	allow If	ui_page	true	admin	2015-07-07 12:07:11
*	allow If	read	true	admin	2020-09-12 18:52:40
*	allow If	execute	gen_ai_workflow	admin	2025-06-24 00:00:25

1 to 20 of 32,691

31°C Mostly cloudy Search ENG IN 03:02 29-10-2025

Access Controls							
	Name	Search	Actions on selected rows...				
All	Name	Decision Type	Operation	Type	Active	Updated by	Updated
<input type="checkbox"/>	\$allapps_mgmt	Allow If	read	ui_page	true	admin	2019-02-20 01:02:07
<input type="checkbox"/>	\$atf_page_inspector	Allow If	read	ui_page	true	admin	2020-03-20 15:16:15
<input type="checkbox"/>	\$conversation-builder	Allow If	read	ui_page	true	admin	2019-06-14 15:13:38
<input type="checkbox"/>	\$mycompanyappsmgmt	Allow If	read	ui_page	true	admin	2019-02-21 02:31:44
<input type="checkbox"/>	\$ng_fd_sc	Allow If	read	ui_page	true	admin	2020-06-12 01:45:37
<input type="checkbox"/>	\$products	Allow If	read	ui_page	true	admin	2020-03-10 03:19:22
<input type="checkbox"/>	\$pwd_reset_serviceDesk	Allow If	read	ui_page	true	admin	2023-05-29 05:26:27
<input checked="" type="checkbox"/>	\$sa_service_model_json	Allow If	read	ui_page	true	admin	2015-10-28 02:03:33
<input type="checkbox"/>	\$sla_timeline	Allow If	read	ui_page	true	admin	2016-11-14 01:14:39
<input type="checkbox"/>	\$sn-va-web-client-app	Allow If	read	ui_page	true	admin	2018-03-06 10:20:09
<input type="checkbox"/>	\$sn_global_search_results	Allow If	read	ui_page	true	admin	2020-06-15 10:43:57
<input type="checkbox"/>	\$spd	Allow If	read	ui_page	true	admin	2016-01-19 12:53:23
<input type="checkbox"/>	\$spm_availability_calculation_setting	Allow If	read	ui_page	true	admin	2024-02-18 06:04:39
<input type="checkbox"/>	\$studio	Allow If	read	ui_page	true	admin	2016-01-09 16:21:38
<input type="checkbox"/>	\$upgrade_client	Allow If	read	ui_page	true	admin	2015-07-07 12:07:02
<input type="checkbox"/>	\$upgrade_monitor	Allow If	read	ui_page	true	admin	2020-04-08 13:33:22
<input type="checkbox"/>	\$upgrade_preview	Allow If	read	ui_page	true	admin	2020-04-08 13:32:49
<input type="checkbox"/>	\$upgrade_temp	Allow If	read	ui_page	true	admin	2015-07-07 12:07:11
*	*	Allow If	read	ux_route	true	admin	2020-09-12 18:52:40
*	*	Allow If	execute	gen_ai_workflow	true	admin	2025-06-24 00:00:25

Servicenow - All Favorites History Workspaces Admin Access Controls

Search Actions on selected rows...

Docker Webhook Answer Subflow

Process Automation Workflow Studio Flow Designer Flow Administration Today's Executions Active Flows Content Definitions Content Filtering Rules Inbound Email Flows Event Queue Settings

\$spm_availability_calculation_setting \$studio \$upgrade_client \$upgrade_monitor \$upgrade_preview \$upgrade_temp * *

Decision Type	Operation	Type	Active	Updated by	Updated
Allow If	read	ui_page	true	admin	2019-02-20 01:02:07
Allow If	read	ui_page	true	admin	2020-03-20 15:16:15
Allow If	read	ui_page	true	admin	2019-06-14 15:13:38
Allow If	read	ui_page	true	admin	2019-02-21 02:31:44
Allow If	read	ui_page	true	admin	2020-06-12 01:45:37
Allow If	read	ui_page	true	admin	2020-03-10 03:19:22
Allow If	read	ui_page	true	admin	2023-05-29 05:26:27
Allow If	read	ui_page	true	admin	2015-10-28 02:23:33
Allow If	read	ui_page	true	admin	2016-11-14 01:14:39
Allow If	read	ui_page	true	admin	2018-03-06 10:20:09
Allow If	read	ui_page	true	admin	2020-06-15 10:43:57
Allow If	read	ui_page	true	admin	2016-01-19 12:53:23
Allow If	read	ui_page	true	admin	2024-02-18 06:04:39
Allow If	read	ui_page	true	admin	2016-01-09 16:21:38
Allow If	read	ui_page	true	admin	2015-07-07 12:07:02
Allow If	read	ui_page	true	admin	2020-04-08 13:33:22
Allow If	read	ui_page	true	admin	2020-04-08 13:32:49
Allow If	read	ui_page	true	admin	2015-07-07 12:07:11
Allow If	read	ux_route	true	admin	2020-09-12 18:52:40
Allow If	execute	gen_ai_workflow	true	admin	2025-06-24 00:00:25

1 to 20 of 32,691

7 31°C Mostly cloudy ENG IN 03:05

Workflow Studio

Homepage Operations Integrations

Playbooks Flows Subflows Actions Decision tables

Flows 70 Last refreshed just now

Name	Application	Status	Active	Updated	Updated
Admin Deployment Approval Flow	App Engine Studio	Published	true	2020-07-28 13:20:50	admin
Error Notifier					
Admin Install App to Production Environment Flow	App Engine Studio	Published	true	2020-07-28 13:37:16	admin
Error Notifier					
Application Intake Request Flow	Application Intake	Published	true	2025-10-24 00:39:51	system
Application Intake Request V2	Application Intake	Published	true	2025-10-24 00:39:51	system
Benchmark Recommendation Evaluator	Benchmarks Spoke	Published	true	2025-08-07 13:17:11	system
Business process approval flow	Global	Published	true	2020-09-27 22:06:13	admin
Change - Cloud Infrastructure - Authorize	Global	Published	true	2020-11-11 07:08:05	admin
Change - Emergency - Authorize	Global	Published	true	2020-10-06 05:39:49	admin
Change - Emergency - Implement	Global	Published	true	2020-09-23 05:06:26	admin
Change - Emergency - Review	Global	Published	true	2020-10-27 04:18:08	admin
Change - Normal - Assess	Global	Published	true	2020-10-06 05:37:05	admin
Change - Normal - Authorize	Global	Published	true	2020-10-06 05:38:35	admin

Pick up where you left off

- Regarding Platform Last updated: 4 d. ago by System Admin...
- Regarding Certificate Last updated: 4 d. ago by System Adm...
- Create Flow Data Last updated: a year ago by System Ad...

Latest updates

- System Administrator modified Regarding Platform 4 d. ago
- System Administrator modified Regarding Certificate 4 d. ago
- System Administrator modified Create Flow Data a year ago
- System Administrator modified Deployment Environment Type Flow a year ago
- System Administrator modified Steps a year ago

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Workflow Studio

Force use report designer when Next Experience is ON Global Published true 2025-08-07 13:15:10 syst

Guidance Automation Flow Executor Guided Decisions - Guidance Published true 2025-08-07 13:33:39 syst

Guidance Automation Flow Executor Legacy Guided Decisions - Guidance Published true 2021-01-27 09:57:56 adm

IAR SLA Reminder Global Published true 2025-08-07 13:38:39 syst

Inbound Email Flow Example: handling email replies Global Draft false 2019-02-22 09:51:54 adm

Inbound Email Flow Example: logging a problem Global Draft false 2019-02-19 10:17:24 adm

KPI Signals Configuration Update Flow Global Published true 2020-09-18 06:13:51 adm

KPI Signals Reminder Notification Flow Global Published true 2020-11-12 02:29:57 adm

KPI Signals Task Create/Update Workflow Global Published true 2025-08-07 13:14:42 syst

New Application Admin Task State Updated Creator Studio Published true 2025-10-24 01:11:39 syst

New Application Task State Updated Creator Studio Published true 2025-10-24 01:11:22 syst

New Request App Approval Flow Creator Studio Published true 2025-10-24 01:10:58 syst

Regarding Certificate Global Published true 2025-10-24 09:12:07 adm

Showing 41-60 of 70 1 2 3 4 20 rows per page

31°C Mostly cloudy Search ENG IN 03:06 29-10-2025

The screenshot shows the ServiceNow Workflow Studio interface. A flow titled "Regarding Certificate" is active. The flow structure is as follows:

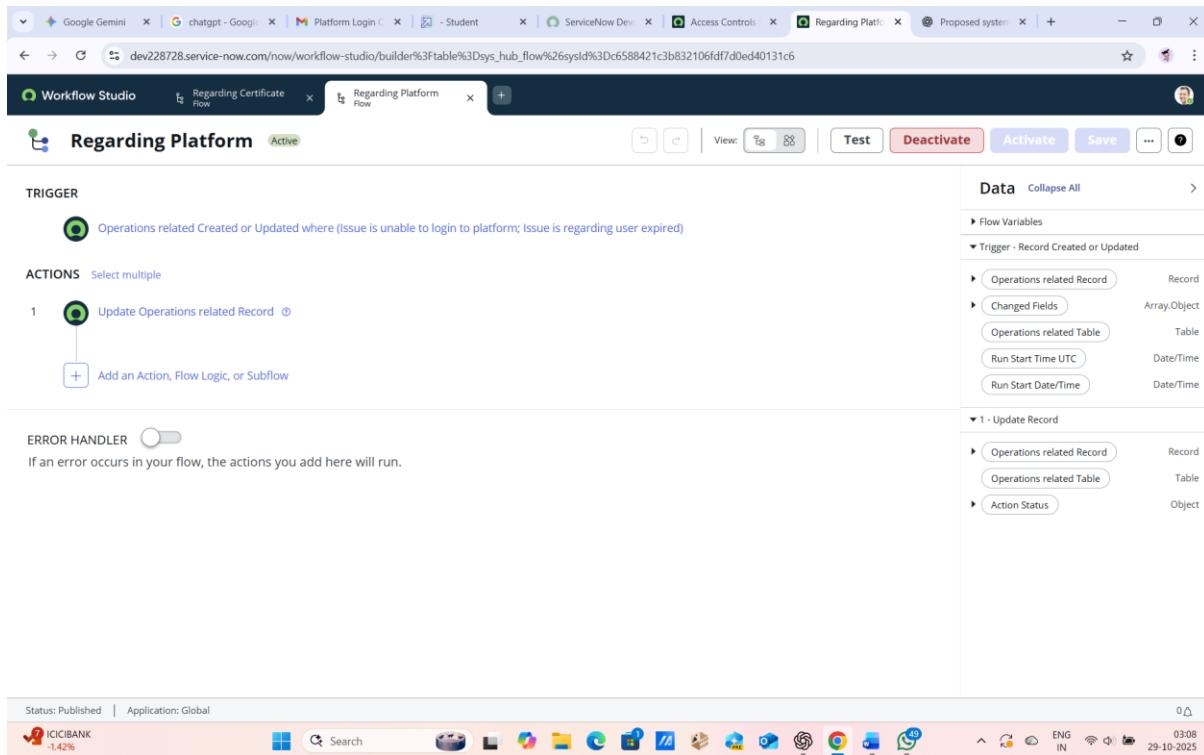
- TRIGGER:** Operations related Created or Updated where (Issue is regarding certificates)
- ACTIONS:** Select multiple
 - 1 Update Operations related Record
 - + Add an Action, Flow Logic, or Subflow
- ERROR HANDLER:** (disabled) If an error occurs in your flow, the actions you add here will run.

On the right side, there is a sidebar with sections for Data, Flow Variables, Trigger - Record Created or Updated, and 1 - Update Record, each containing various options like Record, Table, Date/Time, and Object.

The screenshot shows the ServiceNow Workflow Studio interface with the "Flows" tab selected. The list of flows is as follows:

Name	Application	Status	Active	Updated	Upvotes
Regarding Platform	Global	Published	true	2025-10-24 09:20:09	ad...
Register Business Application	Global	Published	true	2020-06-14 19:47:35	ad...
Report Access Request Flow	Global	Published	true	2021-04-09 12:20:23	ma...
Service Catalog item request	Global	Published	true	2020-01-30 20:12:14	ad...
Set visibility of Analytics applications	Global	Published	false	2025-08-07 13:05:53	sy...
SLA notification and escalation flow	Global	Published	true	2020-04-23 05:42:08	ad...
Step based request fulfillment	Global	Published	true	2025-08-07 13:14:12	sy...
Toggle PAR Pie/Bar Context Menus	Global	Published	true	2025-08-07 13:05:50	sy...
Validate Environments Job	Pipeline	Published	true	2025-10-24 00:39:23	sy...
VTB Sample Flow	Visual Task Board (VTB) Spoke	Draft	false	2025-08-07 13:17:11	sy...

Below the table, it says "Showing 61-70 of 70". On the right, there are sections for "Pick up where you left off" (listing "Regarding Platform", "Regarding Certificate", and "Create Flow Data") and "Latest updates" (listing modifications by System Administrator for various flows). The status bar at the bottom shows "03:07 29-10-2025".



6.1 Tools & Technologies

Component	Details
Platform	ServiceNow (Developer Instance)
Modules Used	Incident Management
Development Tools	Flow Designer, Script Includes, Business Rules
Language	JavaScript
Optional Feature	Predictive Intelligence

Component	Details
Reporting Tool	Performance Analytics

7. Outputs

Functional Outputs

- Automatic assignment of incidents on creation.
- Skill-based and workload-aware routing.
- Notifications sent to assigned agents.
- SLA dashboards showing improved compliance.
- Reduced ticket reassignment rate.

Sample Output Snapshot (Conceptually)

Incident Category Assigned To SLA Status

INC001 Network John Doe In Progress

INC002 Hardware Mary Smith Met

INC003 Software Alice Lee Near Breach

8. Advantages

-  **Eliminates manual routing and human error.**
 -  **Improves SLA compliance by faster ticket assignment.**
 -  **Balances workloads across agents.**
 -  **Increases transparency and reporting visibility.**
 -  **Fully configurable and scalable inside ServiceNow.**
-

9. Disadvantages

-  **Requires accurate skill and workload data.**
 -  **Complex scripting may affect performance if not optimized.**
 -  **Predictive Intelligence requires additional licensing.**
 -  **Maintenance needed when new categories or agents are added.**
-

10. Future Enhancements

- 1.NLP Integration:** Analyze ticket descriptions to auto-detect category and urgency.
- 2.AI Learning Engine:** Improve assignment accuracy using machine learning models trained on historical data.
- 3.Chatbot Integration:** Allow Virtual Agent to handle pre-assignment triage.
- 4.Cross-Platform Integration:** Sync ticket data with external tools (Slack, Jira, Microsoft Teams).
- 5.Predictive Workload Forecasting:** Anticipate spikes in ticket volume using analytics.

11. Conclusion

This project successfully demonstrates the development of a Smart Ticket Assignment System within ServiceNow using native developer tools. By leveraging Flow Designer, Business Rules, and Script Includes, tickets

are automatically assigned to the right agents based on category, skill, and workload.

The automation significantly improves SLA performance, reduces manual workload, and enhances visibility into team efficiency. From a developer perspective, this project highlights ServiceNow's flexibility and extensibility for automating complex business processes.

With future integration of AI and predictive analytics, this solution can evolve into a self-learning intelligent ticket routing framework, redefining IT support efficiency and operational excellence.