

# **SERVICE NOW PROJECT REPORT**

## **ServiceNow Operations Ticket Management System**

### **1. INTRODUCTION**

#### **1.1 Project Overview**

The ServiceNow Operations Ticket Management System is designed to automate the process of managing operational support requests within an organization. The system enables users to raise issues related to platform access, certification services, and operational problems while automatically routing tickets to appropriate support teams using workflow automation.

#### **1.2 Purpose**

The purpose of this project is to:

- Reduce manual ticket assignment
- Improve operational efficiency
- Automate issue routing
- Enhance user satisfaction
- Enable faster issue resolution

### **2. IDEATION PHASE**

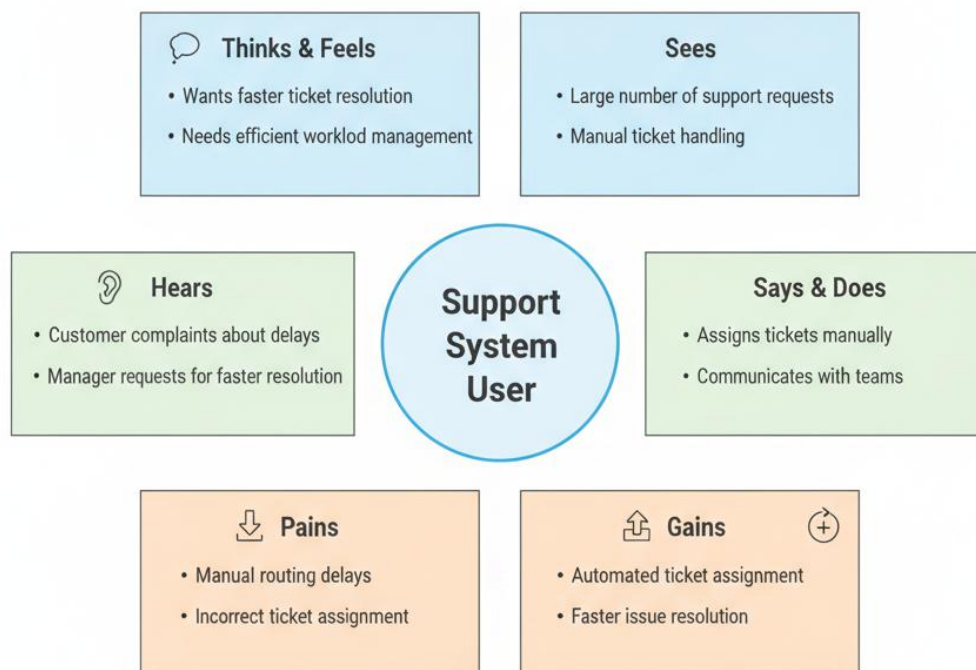
#### **2.1 Problem Statement**

Organizations face delays in resolving operational issues due to manual ticket handling and improper workload distribution. Lack of automation results in slower response time and reduced productivity.

#### **2.2 Empathy Map Canvas**

The empathy analysis identified user frustrations such as delayed ticket resolution, manual communication, and inefficient support processes. Users require automated systems that ensure faster and accurate ticket handling.

## Empathy Map Canves



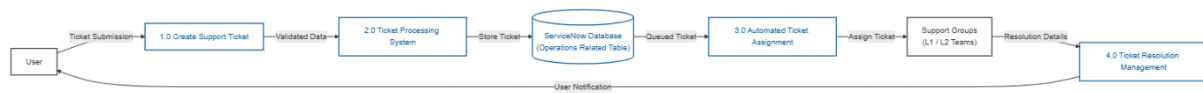
### 2.3 Brainstorming

Brainstorming sessions explored solutions such as automated ticket routing, role-based access management, and workflow automation using ServiceNow Flow Designer.

## 3. REQUIREMENT ANALYSIS

### 3.1 Customer Journey Map

The customer journey includes issue identification, ticket submission, automated routing, support resolution, and user notification.



## 3.2 Solution Requirement

### Functional Requirements

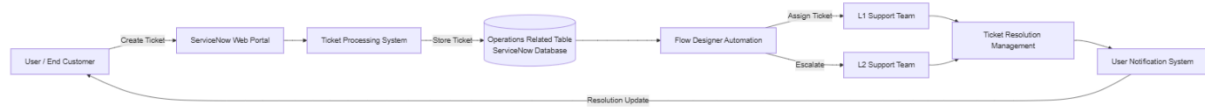
- Ticket creation module
- Issue categorization
- Automated assignment
- Role-based access
- Ticket tracking

### Non-Functional Requirements

- System reliability
- Fast response time
- Secure access control
- High availability

## 3.3 Data Flow Diagram

The system processes ticket requests from users and routes them through automated workflows to support teams.



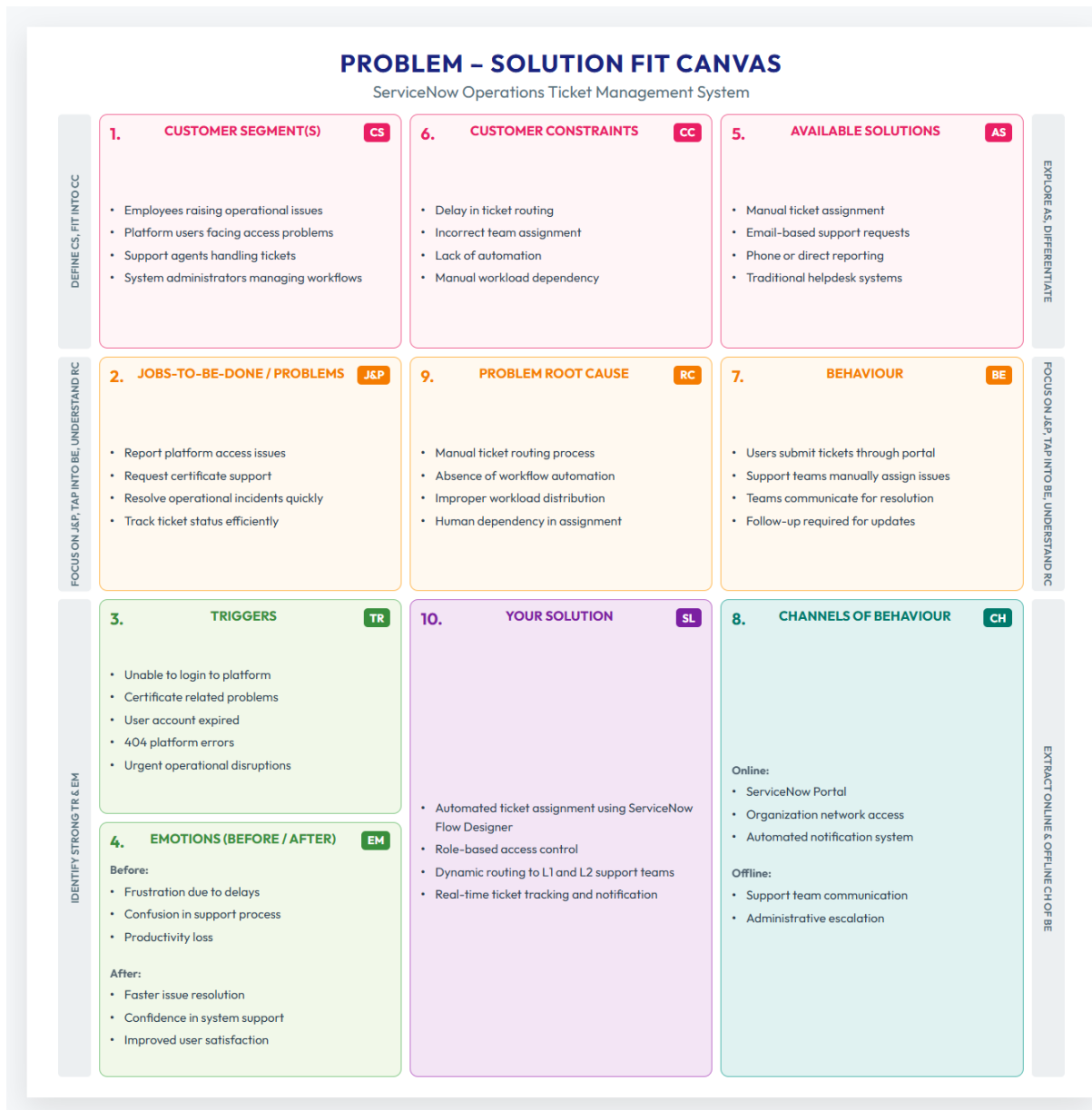
### 3.4 Technology Stack

Component	Technology
Platform	ServiceNow
Workflow Automation	Flow Designer
Database	ServiceNow Tables
Security	ACL & Roles
Interface	ServiceNow Forms
Deployment	Cloud Platform

## 4. PROJECT DESIGN

### 4.1 Problem Solution Fit

The proposed solution aligns with user needs by automating ticket routing and minimizing manual workload.

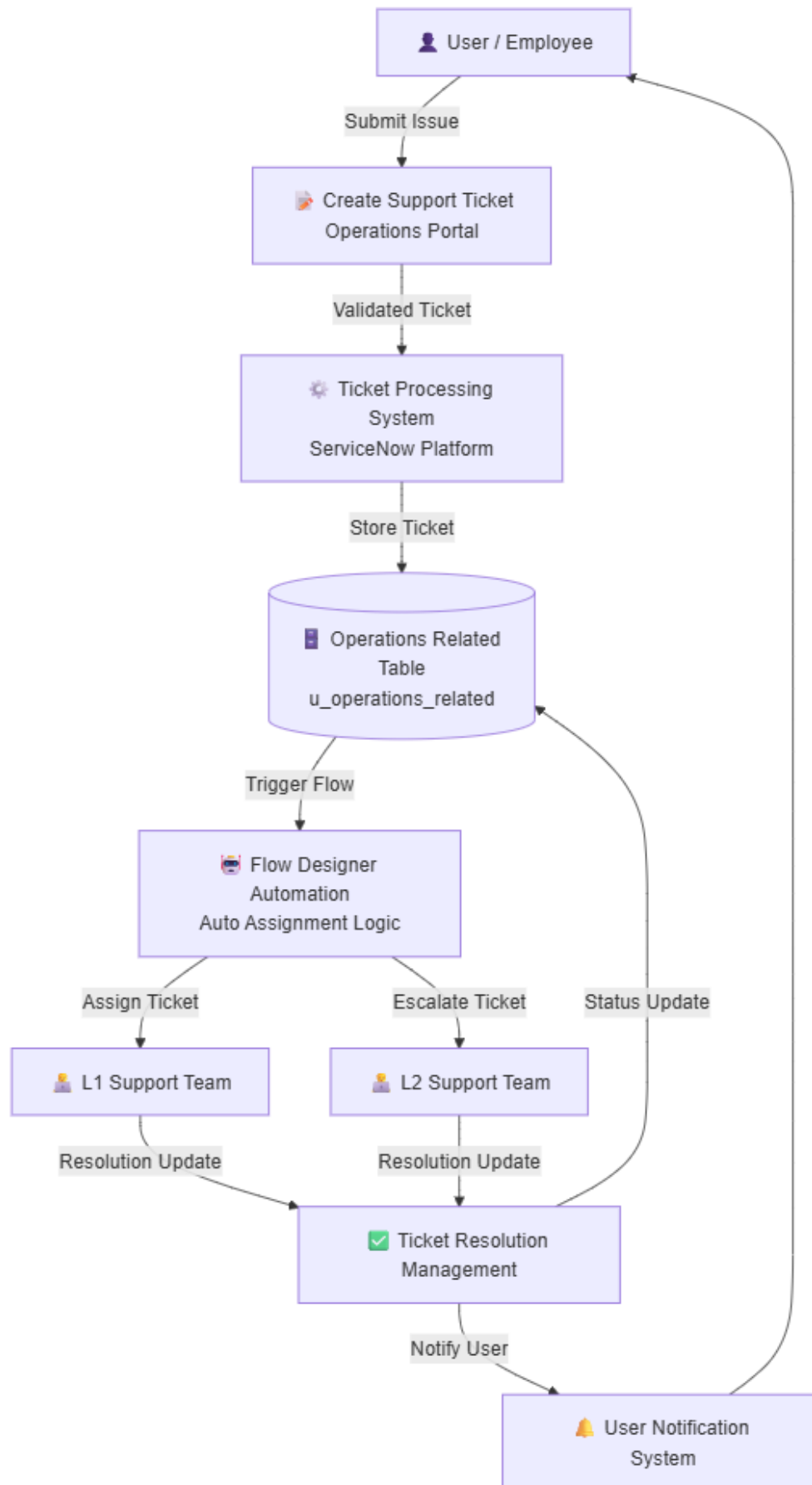


## 4.2 Proposed Solution

The system automatically assigns operational tickets to L1 or L2 support teams based on issue type using predefined workflows.

## 4.3 Solution Architecture

The architecture consists of user interface forms, ServiceNow database tables, workflow automation, and support group management.



## 5. PROJECT PLANNING & SCHEDULING

### 5.1 Project Planning

The project was executed using Agile methodology with sprint-based planning involving requirement analysis, development, testing, and deployment phases.

## 6. FUNCTIONAL AND PERFORMANCE TESTING

### 6.1 Performance Testing

Performance testing validated system responsiveness and workflow execution efficiency.

#### Test Environment

Parameter	Details
Platform	ServiceNow Developer Instance
Application	Operations Related Module
Users Tested	Admin, Support Agent
Database	ServiceNow Table
Browser	Google Chrome

#### Performance Test Scenarios

Test Case ID	Scenario	Expected Result	Actual Result	Status
PT01	Create Operations Ticket	Ticket created instantly	Successful	Pass
PT02	Flow Trigger Execution	Auto assignment triggered	Successful	Pass
PT03	Database Storage	Record stored correctly	Successful	Pass
PT04	Group Assignment	Ticket assigned automatically	Successful	Pass
PT05	Multiple Ticket Creation	System stable	Successful	Pass

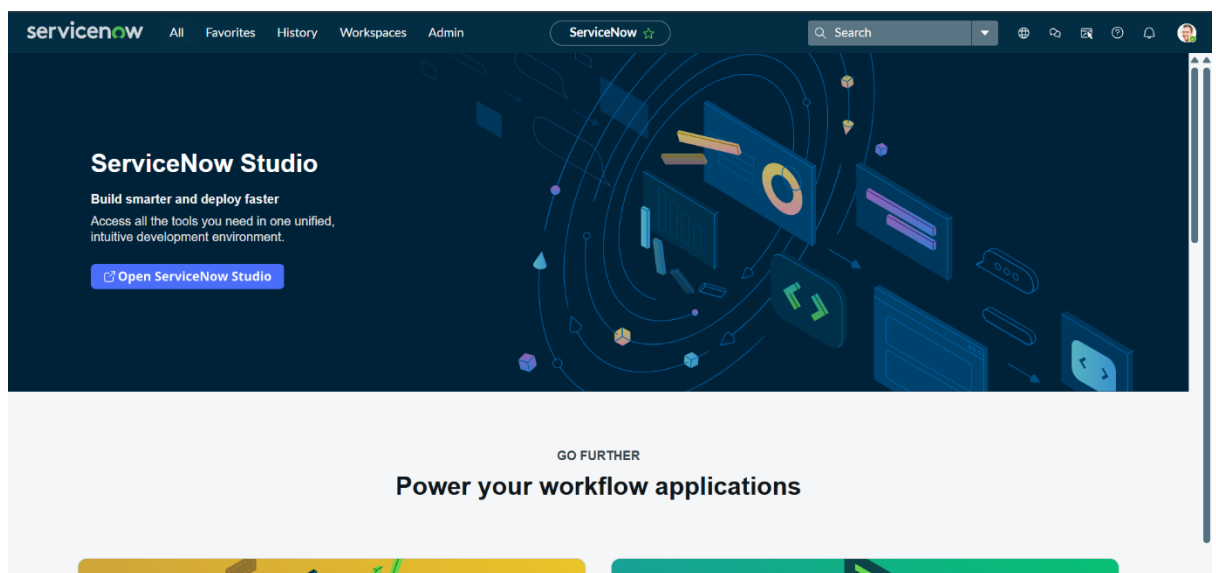
#### Performance Metrics

Metric	Result
Ticket Creation Time	< 2 seconds
Flow Execution Time	< 3 seconds
Response Time	Fast
System Stability	Stable
Automation Accuracy	100%

## 7. RESULTS

### 7.1 Output Screenshots

- User Creation





servicenow						
All Favorites History Workspaces Admin						
Users						
Created Search						
Actions on selected rows... New						
All						
User ID	Name	Email	Active	Created	Updated	
manager.user	Manager User	manager@abc.com	true	2026-02-25 03:27:32	2026-02-25 03:27:44	
support.agent	Support Agent	support@abc.com	true	2026-02-25 03:25:02	2026-02-25 03:25:57	
aes.creator	Creator User		true	2026-02-24 19:58:47	2026-02-25 03:13:36	
Help Desk	User 1	help.desk@example.com	true	2026-01-12 01:52:08	2026-02-24 19:27:41	
manifah.masood	Manifah Masood	manifah.masood@example.com	true	2026-01-09 08:13:35	2026-02-24 19:27:41	
guillermo.frohlich	Guillermo Frohlich	guillermo.frohlich@example.com	true	2026-01-09 07:04:03	2026-02-24 19:27:43	
securitycenter.user	Security Center Data Collection User		true	2026-01-06 04:40:04	2026-02-24 19:27:47	
virtual.agent	Virtual Agent		true	2026-01-06 04:32:37	2026-02-24 19:27:45	
andrew.och	Andrew Och	andrew.och@example.com	true	2026-01-05 08:45:02	2026-02-24 19:27:44	
aqib.mushtaq	Aqib Mushtaq	aqib.mushtaq@example.com	false	2026-01-05 08:35:36	2026-02-24 19:27:42	
arya.hajarha	Arya Hajarha	arya.hajarha@example.com	true	2026-01-05 08:32:04	2026-02-24 19:27:46	
bushra.akhtar	Bushra Akhtar	bushra.akhtar@example.com	true	2026-01-05 08:25:39	2026-02-24 19:27:43	
SLA Manager	SLA Manager	sla.manager@example.com	true	2026-01-05 01:16:14	2026-02-24 19:27:44	
SLA Admin	SLA Admin	sla.admin@example.com	true	2026-01-05 01:15:35	2026-02-24 19:27:41	
change.atf	ATF Change Management		true	2026-01-05 00:50:50	2026-02-24 19:27:45	
problem.admin	Problem Administrator	problem.admin@example.com	true	2026-01-04 21:01:37	2026-02-24 19:27:41	
problem.manager	Problem Manager	problem.manager@example.com	true	2026-01-04 21:01:07	2026-02-24 19:27:46	

- Group Configuration

servicenow						
All Favorites History Workspaces Admin						
Groups						
Updated Search						
Actions on selected rows... New						
All						
Name	Description	Active	Manager	Parent	Updated	
L2 Support Team	Handles Level 2 escalated tickets	true	(empty)	(empty)	2026-02-25 03:31:49	
L1 Support Team	Handles Level 1 support tickets	true	(empty)	(empty)	2026-02-25 03:31:22	
Help Desk		true	ATF Change Management	(empty)	2026-01-12 01:50:32	
RMA Approvers	Responsible for Return Material Authoriz...	true	(empty)	(empty)	2026-01-05 13:12:50	
Application Development	Team Develops ITSM Applications in London	true	Bushra Akhtar	(empty)	2026-01-05 08:42:02	
Network CAB Managers	Group to represent the CAB Managers for ...	true	(empty)	(empty)	2026-01-05 00:36:33	
Problem Analyzers	Group that works on analyzing and fixing...	true	(empty)	(empty)	2026-01-04 21:11:33	
Problem Solving	Group that works on analyzing and fixing...	true	(empty)	(empty)	2026-01-04 21:10:15	
Service Desk		true	Beth Anglin	(empty)	2026-01-04 16:14:56	
MIF Admins		true	(empty)	(empty)	2025-03-27 08:13:12	
Conditional Script Writer	This is the default group introduced by ...	true	(empty)	(empty)	2025-02-25 18:04:32	
MFA Exempted User Group	Add the users into this group for which ...	true	(empty)	(empty)	2024-08-07 08:57:10	
Project Mgmt		true	(empty)	(empty)	2024-05-09 18:42:19	
Capacity Mgmt		true	(empty)	(empty)	2024-05-09 18:40:19	
Database Atlanta	Manages databases hosted in Atlanta	true	(empty)	Database	2024-03-30 11:47:18	
Database San Diego	Manages databases hosted in San Diego	true	(empty)	Database	2024-03-30 11:46:37	
Creator Studio Restricted Users	Provides access to the Creator Studio de...	true	(empty)	(empty)	2023-12-07 15:58:22	

- Table Creation

servicenow All Favorites History Workspaces Admin Tables <span>Search</span>					
All > Update name is not empty					
<input type="checkbox"/>	Label	Name	Extends table	Extensible	Updated
	Operations related	u_operations_related	(empty)	false	2026-02-25 07:23:45
	Kafka Consumer Statistics	sys_kafka_consumer_statistics0003	(empty)	false	2026-02-24 21:16:25
	Kafka Consumer Statistics	sys_kafka_consumer_statistics0004	(empty)	false	2026-02-24 21:16:25
	Kafka Consumer Statistics	sys_kafka_consumer_statistics0002	(empty)	false	2026-02-24 21:16:24
	Kafka Consumer Statistics	sys_kafka_consumer_statistics0001	(empty)	false	2026-02-24 21:16:23
	Kafka Consumer Statistics	sys_kafka_consumer_statistics0000	(empty)	false	2026-02-24 21:16:23
	Kafka Unprocessed Message	sys_kafka_unprocessed_messages0006	(empty)	false	2026-02-24 21:16:21
	Kafka Unprocessed Message	sys_kafka_unprocessed_messages0004	(empty)	false	2026-02-24 21:16:20
	Kafka Unprocessed Message	sys_kafka_unprocessed_messages0005	(empty)	false	2026-02-24 21:16:20
	Kafka Unprocessed Message	sys_kafka_unprocessed_messages0003	(empty)	false	2026-02-24 21:16:19
	Kafka Unprocessed Message	sys_kafka_unprocessed_messages0001	(empty)	false	2026-02-24 21:16:18
	Kafka Unprocessed Message	sys_kafka_unprocessed_messages0002	(empty)	false	2026-02-24 21:16:18
	Kafka Unprocessed Message	sys_kafka_unprocessed_messages0000	(empty)	false	2026-02-24 21:16:17
	Now Assists Count For Skills	now_assists_skills	(empty)	false	2026-02-24 21:15:05
	Now Assists Count For Domains	now_assists_domains	(empty)	false	2026-02-24 21:15:05
	MDM Product Data	mdm_product_data	(empty)	false	2026-02-24 21:15:04
	Setup Tools	sys_cs_context_profile_tool	Application File	false	2026-02-24 21:15:03

servicenow All Favorites History Workspaces Admin Table - Operations related <span>Search</span>					
Table Operations related <span>Delete Update Delete All Records</span>					
Columns Controls Application Access					
Table Columns for text <span>Search</span> <span>1 to 10 of 10</span> <span>New</span>					
Dictionary Entries					
<input type="checkbox"/>	Column label	Type	Reference	Max length	Default value
<input checked="" type="checkbox"/>	Issue	Choice	(empty)	40	false
<input checked="" type="checkbox"/>	Sys ID	Sys ID (GUID)	(empty)	32	false
<input checked="" type="checkbox"/>	Assigned to group	Reference	Group	32	false
<input checked="" type="checkbox"/>	Status	Choice	(empty)	40	false
<input checked="" type="checkbox"/>	Created	Date/Time	(empty)	40	false
<input checked="" type="checkbox"/>	Updated by	String	(empty)	40	false
<input checked="" type="checkbox"/>	Updates	Integer	(empty)	40	false
<input checked="" type="checkbox"/>	Updated	Date/Time	(empty)	40	false
<input checked="" type="checkbox"/>	Created by	String	(empty)	40	false
<input checked="" type="checkbox"/>	Description	String	(empty)	40	false
<input type="checkbox"/>	Insert a new row...				

- ACL Configuration

servicenow							
Access Controls							
Updated							
Search							
Actions on selected rows...							
All							
<input type="checkbox"/>	Name	Decision Type	Operation	Type	Active	Updated by	Updated
<input type="checkbox"/>	u_operations_related.u_description	Allow If	write	record	true	admin	2026-02-25 07:07:08
<input type="checkbox"/>	u_operations_related.u_status	Allow If	write	record	true	admin	2026-02-25 07:06:24
<input type="checkbox"/>	u_operations_related.u_issue	Allow If	write	record	true	admin	2026-02-25 07:04:12
<input type="checkbox"/>	u_operations_related	Allow If	read	record	true	admin	2026-02-25 06:25:59
<input type="checkbox"/>	u_operations_related	Allow If	read	record	true	admin	2026-02-25 05:23:00
<input type="checkbox"/>	u_operations_related	Allow If	write	record	true	admin	2026-02-25 05:23:00
<input type="checkbox"/>	u_operations_related	Allow If	delete	record	true	admin	2026-02-25 05:23:00
<input type="checkbox"/>	u_operations_related	Allow If	create	record	true	admin	2026-02-25 05:23:00
<input type="checkbox"/>	sys_og_tool_execution_context.*	Allow If	read	record	true	system	2026-02-24 21:15:03
<input type="checkbox"/>	sys_og_tool_execution_context.*	Allow If	write	record	true	system	2026-02-24 21:15:03
<input type="checkbox"/>	gen_ai_service_secret.*	Allow If	read	record	true	system	2026-02-24 21:14:53
<input type="checkbox"/>	gen_ai_service_secret.*	Allow If	write	record	true	system	2026-02-24 21:14:53
<input type="checkbox"/>	gen_ai_service_secret.secret	Allow If	read	record	true	system	2026-02-24 21:14:53
<input type="checkbox"/>	sn_try_build_agent_knowledge_source	Allow If	read	record	true	system	2026-02-24 20:07:52
<input type="checkbox"/>	sn_try_build_agent_knowledge_source	Deny Unless	create	record	true	system	2026-02-24 20:07:52
<input type="checkbox"/>	sn_try_build_agent_freemium_usage_log	Allow If	create	record	true	system	2026-02-24 20:07:52
<input type="checkbox"/>	sn_try_build_agent_freemium_usage_log	Allow If	report_view	record	true	system	2026-02-24 20:07:52

## Flow Automation

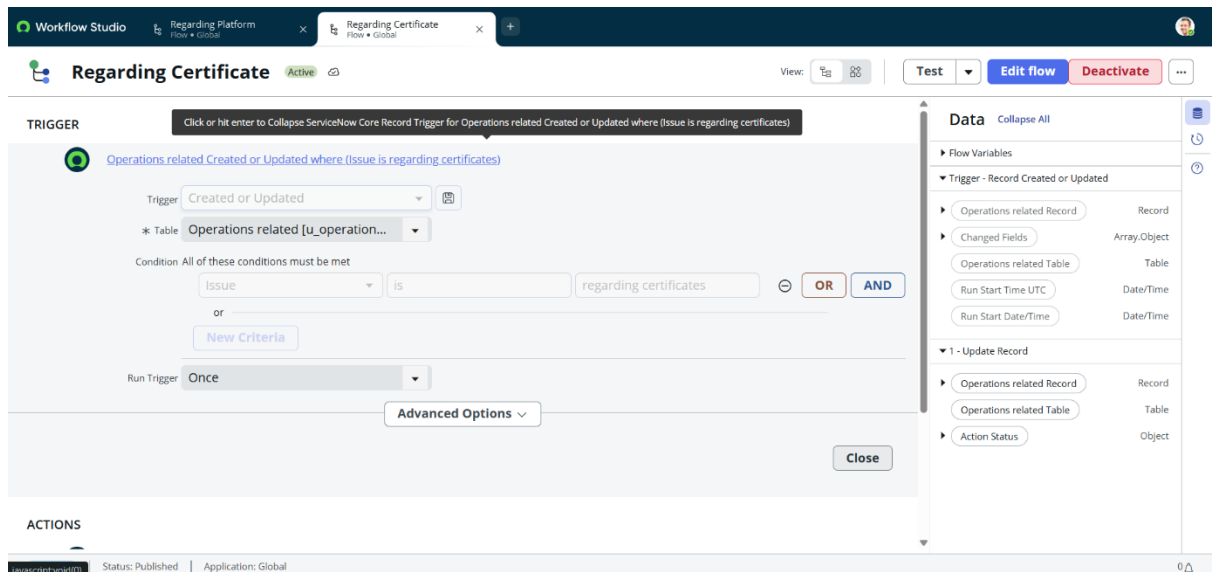
Workflow Studio
Regarding Platform
Flow: Global

Regarding Platform
Active
View:
Test
Edit flow
Deactivate

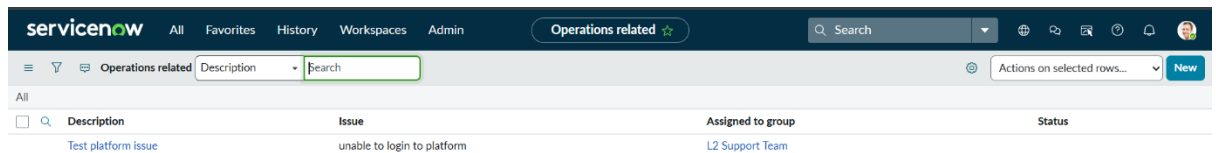
TRIGGER
Operations related Created or Updated where (Issue is unable to login to platform; Issue is 404 error; Issue is regarding user expired)
Trigger: Created or Updated
\* Table: Operations related [u\_operation...]
Condition All of these conditions must be met
Issue is unable to login to platform
or
All of these conditions must be met
Issue is 404 error
or
All of these conditions must be met
Issue is regarding user expired
Run Trigger: Once
Advanced Options

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
Operations related Record: Record
Operations related Table: Table
Action Status: Object

javascript:void(0)
Status: Published
Application: Global
0



- Ticket Assignment Results



## 8. ADVANTAGES & DISADVANTAGES

### Advantages

- Automated ticket routing
- Reduced manual effort
- Faster issue resolution
- Improved operational efficiency

### Disadvantages

- Requires ServiceNow platform access
- Initial configuration complexity

## 9. CONCLUSION

The ServiceNow Operations Ticket Management System successfully automates operational issue handling and improves support efficiency through workflow automation and role-based access control.

## **10. FUTURE SCOPE**

- AI-based ticket prioritization
- Chatbot integration
- Predictive issue analytics
- Mobile support dashboard

## **11. APPENDIX**

### **Source Code**

ServiceNow configuration scripts and workflows

### **GitHub & Project Demo Link**

- GitHub Repository: <https://github.com/Narasimha-kambham/ServiceNow-Operations-Ticket-Management-System.git>
- Demo Video Link: <https://drive.google.com/file/d/1iW-9wNSv7SRmrtnfKlPyXA6vdG8Lzgiq/view?usp=sharing>