

Streamlining Ticket Assignment for Efficient Support Operations

INTRODUCTION:

- This project focuses on automating the ticket assignment process in ServiceNow for efficient IT support operations.
- It aims to reduce the manual effort involved in routing support tickets to the correct teams.
- The system ensures that incidents are assigned to the appropriate support group based on the issue type.
- Users, groups, and roles are created in ServiceNow to manage access and responsibilities properly.
- A custom table (`u_operations_related`) is designed to store and track operational support-related ticket information.
- Access Control Lists (ACLs) are implemented to provide secure and role-based access to ticket records.
- Flow Designer (Workflow Studio) is used to automate ticket routing whenever a new ticket is created or updated.
- Overall, the solution improves operational efficiency, response time, and customer satisfaction.

Purpose:

- The main purpose of this project is to streamline the ticket handling process within Corporation's support department.
- It helps in assigning tickets automatically to the right support team without manual intervention.
- The project reduces delays caused by incorrect or late ticket assignment.
- It improves the productivity of support agents by minimizing repetitive routing tasks.
- The automation ensures faster resolution of critical issues, improving service quality.
- Role-based access ensures that only authorized users can view or update specific ticket records.
- The project enhances resource utilization by distributing workload efficiently across groups — certificates team and platform team.
- It provides a scalable foundation for future enhancements like AI-based ticket categorization.

IDEATION PHASE

Problem Statement:

At Corporations, support teams handle a large number of service requests and incident tickets every day. Traditionally, these tickets are assigned manually to different support groups based on the type of issue reported. This manual assignment process often leads to delays, incorrect routing, and increased workload for support staff. As a result, customers may experience slower response times and reduced satisfaction. To overcome these challenges, there is a need for an automated ticket assignment system that can efficiently route tickets to the appropriate support group based on predefined conditions. This project addresses the problem by implementing an automated ticket routing solution in ServiceNow, ensuring faster resolution, optimized resource utilization, and improved overall support operations.

REQUIREMENT ANALYSIS

Solution Requirement:

- The system should automatically assign support tickets to the correct group based on the issue category — certificates or platform.
- Users, support teams, and roles must be configured to manage responsibilities and access properly.
- A custom table (u_operations_related) is required to store ticket-related operational details and track assignments.
- Access Control Lists (ACLs) must be implemented to ensure secure and role-based record access across all fields.
- Flow Designer automation should trigger ticket routing whenever a ticket is created or updated in the Operations Related table.

Technology Stack:

- ServiceNow Platform – Used for building and managing the ticket routing application.
- Workflow Studio (Flow Designer) – Implements automation workflows for ticket assignment using two flows: Regarding Certificate and Regarding Platform.
- Custom Tables & Forms – The u_operations_related table is created to store and manage operational ticket information including Issue, Priority, Service Request No, and Ticket Raised Date.
- Roles, Groups, and ACLs – Used for user access control and security management; roles include certification_role, Platform_role, and u_operations_related_user.
- ServiceNow UI & Modules – Provides the interface for ticket creation, tracking, and administration.

PROJECT DESIGN

Problem Solution Fit:

- The proposed system directly addresses delays caused by manual ticket assignment at Corporation.
- Automated routing ensures tickets reach the correct support team (certificates or platform) without human intervention.
- Role-based access improves security and prevents unauthorized ticket modifications using ACLs on the u_operations_related table.
- The solution reduces workload on administrators by eliminating repetitive assignment tasks.
- It improves service efficiency, response time, and overall customer satisfaction.

Proposed Solution:

- A ServiceNow-based automation system is developed using Workflow Studio for ticket assignment and tracking.
- Tickets are categorized and automatically assigned to relevant support groups — certificates group (managed by Katherine Pierce) or platform group (managed by Manne Niranjan).
- A custom table u_operations_related is created to manage operational support ticket data with fields for issue type, priority, service request number, and ticket raised date.
- Two Flow Designer workflows — Regarding Certificate and Regarding Platform — trigger automatic routing when tickets are created or updated.
- Nine ACL rules ensure that only authorized users can view or edit ticket records at both table and field level.

Solution Architecture:

- Users raise incidents or support requests through the ServiceNow portal/interface, submitting data into the u_operations_related table.
- The ticket data is stored in the custom operational support table with fields capturing issue type, priority, and service request details.
- Workflow Studio evaluates ticket conditions — specifically the u_issue field — to determine the appropriate routing.
- Based on defined rules, tickets with certificate-related issues are assigned to the certificates group; platform-related issues (login failure, user expired, 404 error) are assigned to the platform group.
- Security is enforced through three custom roles, two groups with assigned managers, and nine ACLs covering table-level and field-level access.
- The system maintains a complete audit trail of ticket assignment and status changes for tracking and compliance.

- The architecture is scalable, allowing future integration with AI-based categorization, dashboards, and additional issue categories.

PROJECT PLANNING & SCHEDULING

- The project was planned with the objective of automating ticket assignment and improving support operations at Corporation using ServiceNow.
- The first step involved understanding the problem of manual ticket routing and identifying areas where automation can help.
- A clear workflow was designed to ensure that incidents are assigned to the appropriate support group — certificates or platform — without delays.
- The ServiceNow instance setup was completed by configuring the required modules and application scope (Global).
- Two users were created: Katherine Pierce (certificates group manager) and Manne Niranjan (platform group manager, User ID: manne.niranjan).
- Two support groups were configured: certificates (for certificate-related issues) and platform (for login, user expiry, and 404 errors).
- Three roles were defined — certification_role, Platform_role, and u_operations_related_user — and assigned to users to ensure proper responsibility distribution and controlled access.
- A custom operational support table (u_operations_related) was created with fields: u_issue, u_name, u_priority, u_service_request_no, and u_ticket_raised_date.
- Form layouts and fields were customized to capture necessary ticket information such as issue category, priority, and assignment group.
- Nine Access Control Lists (ACLs) were implemented — four at table level (create, read, write, delete) and five at field level — to enforce security and restrict unauthorized access.
- The ticket assignment logic was planned using predefined conditions based on issue type in the u_issue field.
- Workflow Studio (Flow Designer) was selected as the automation tool to implement workflows without complex scripting.
- Two automated flows were configured: Regarding Certificate (triggers when issue is regarding certificates) and Regarding Platform (triggers when issue is unable to login / user expired / 404 error).
- The flows ensure that the Assigned to Group field is automatically populated based on routing rules whenever a ticket is created or updated.
- Testing strategies were planned to validate correct ticket routing, security rules, and ACL enforcement using the built-in Test feature in Workflow Studio.
- The project schedule was organized into phases: requirement gathering, design, development, automation setup, testing, and deployment.

- Final documentation and output verification were planned to ensure successful project submission and demonstration.
- The project is designed to be scalable for future improvements like AI-based ticket categorization and predictive support analytics.

FUNCTIONAL AND PERFORMANCE TESTING

Performance Testing:

- Performance testing was conducted to ensure that the automated ticket assignment system works efficiently under different operational scenarios.
- The system was tested to verify that tickets are assigned to the correct support groups — certificates or platform — without delays when incidents are created.
- Response time was monitored to confirm that automation workflows (Regarding Certificate and Regarding Platform) execute quickly when triggered.
- ServiceNow's built-in Test feature in Workflow Studio was used to perform structured and repeatable testing of ticket routing flows.
- Automated test cases were created to validate form submission, assignment group population, and workflow triggering conditions for all issue types.
- The solution was tested for scalability to ensure it can handle increased ticket volume without affecting system performance.
- Security and ACL rules were also validated during testing to confirm that only authorized users can access or modify ticket records in u_operations_related.
- Overall, the testing results confirmed that the system provides reliable performance, faster ticket handling, and improved support efficiency for Corporation.

ADVANTAGES & DISADVANTAGES

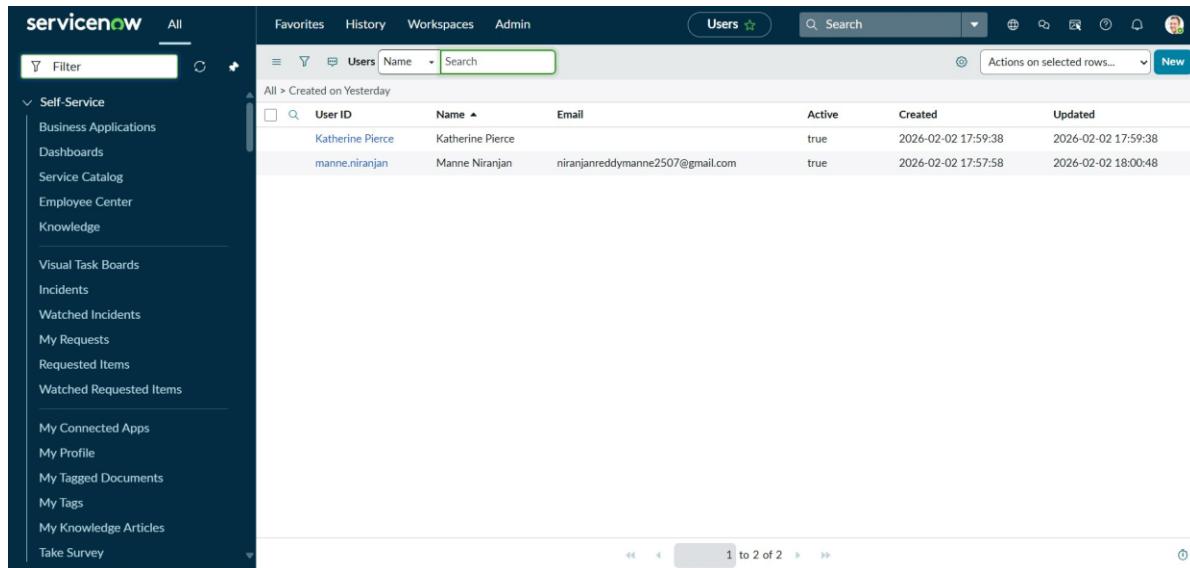
Advantages:

- Automated ticket assignment reduces manual effort and saves time for support teams at Corporation.
- Faster routing to the correct group (certificates or platform) ensures quicker response and improved incident resolution time.
- Proper workload distribution across two specialist support groups enhances operational efficiency.
- Role-based access control with three custom roles and nine ACLs improves system security and prevents unauthorized changes.
- Workflow Studio automation provides a reliable and low-code implementation approach for ticket routing.
- The system improves customer satisfaction by reducing delays in support handling.
- The solution is scalable and can be extended to handle additional issue categories and support groups easily.

Disadvantages:

- Initial setup of users, roles, groups, and ACLs requires careful configuration to avoid access issues.
- Automation rules must be designed correctly to avoid incorrect ticket routing between certificate and platform groups.
- The system depends on accurate ticket categorization during incident creation — incorrect u_issue values may cause misrouting.
- Complex workflows may require advanced customization for larger organizations with more issue categories.
- Performance may be impacted if too many flows run simultaneously without optimization.
- Maintenance is required when support group structures, managers, or business routing rules change.

RESULTS



The screenshot shows the ServiceNow interface for managing users. The left sidebar is titled 'Self-Service' and includes links for Business Applications, Dashboards, Service Catalog, Employee Center, Knowledge, Visual Task Boards, Incidents, Watched Incidents, My Requests, Requested Items, Watched Requested Items, My Connected Apps, My Profile, My Tagged Documents, My Tags, and My Knowledge Articles. At the bottom of the sidebar is a 'Take Survey' link. The main area is titled 'Users' and shows a search bar with 'Name' and a 'Search' button. Below the search bar is a filter bar with 'All > Created on Yesterday'. A table displays two user records:

User ID	Name	Email	Active	Created	Updated
Katherine Pierce	Katherine Pierce		true	2026-02-02 17:59:38	2026-02-02 17:59:38
manne.niranjan	Manne Niranjan	niranjanreddymanne2507@gmail.com	true	2026-02-02 17:57:58	2026-02-02 18:00:48

At the bottom of the page, there are navigation icons and a footer with page numbers '1 to 2 of 2'.

servicenow All

Favorites History Workspaces Admin

User - Katherine Pierce

Filter

Self-Service

Business Applications
Dashboards
Service Catalog
Employee Center
Knowledge

Visual Task Boards
Incidents
Watched Incidents
My Requests
Requested Items
Watched Requested Items

My Connected Apps
My Profile
My Tagged Documents
My Tags
My Knowledge Articles
Take Survey

User Katherine Pierce

This field is read-only. Please select 'Machine Identity' option in Identity type dropdown field if you want to mark this account as 'Web service access only.'

Internal Integration User

Update Set Password Delete

Related Links

View linked accounts
View Subscriptions
Reset a password

Entitled Custom Tables Roles (2) Groups (2) Delegates Subscriptions User Client Certificates

Role Search Actions on selected rows... Edit...

User = Katherine Pierce

Role	State	Inherited	Inheritance Count
certification_role	Active	true	1
snc_required_script_writer_permission	Active	true	

1 to 2 of 2

servicenow All

Favorites History Workspaces Admin

User - Katherine Pierce

Filter

Self-Service

Business Applications
Dashboards
Service Catalog
Employee Center
Knowledge

Visual Task Boards
Incidents
Watched Incidents
My Requests
Requested Items
Watched Requested Items

My Connected Apps
My Profile
My Tagged Documents
My Tags
My Knowledge Articles
Take Survey

User Katherine Pierce

User ID: Katherine Pierce
First name: Katherine
Last name: Pierce
Title:

Department:

Password needs reset
Locked out
Active
Identity type: Human

Email:

Language: -- None --
Calendar integration: Outlook
Time zone: System (America/Los_Angeles)
Date format: System (yyyy-MM-dd)
Business phone:
Mobile phone:
Photo: Click to add...

Web service access only
This field is read-only. Please select 'Machine Identity' option in Identity type dropdown field if you want to mark this account as 'Web service access only.'

Internal Integration User

Update Set Password Delete

Related Links

Servicenow All

Favorites History Workspaces Admin User - Manne Nirajan Search

User
Manne Nirajan

User ID: manne.niranjan

First name: Manne

Last name: Nirajan

Title:

Department:

Password needs reset:

Locked out:

Active:

Identity type: Human

Web service access only: This field is read-only. Please select 'Machine Identity' option in Identity type dropdown field if you want to mark this account as 'Web service access only.'

Internal Integration User:

Email: nirajanreddymanne2507@gn

Language: -- None --

Calendar integration: Outlook

Time zone: System (America/Los_Angeles)

Date format: System (yyyy-MM-dd)

Business phone:

Mobile phone:

Photo: Click to add...

Update Set Password Delete

Servicenow All

Favorites History Workspaces Admin Groups Search

All > Created on Yesterday

Name	Description	Active	Manager	Parent	Updated
certificates		true	Katherine Pierce	(empty)	2026-02-02 18:04:42
platform		true	Manne Nirajan	(empty)	2026-02-02 18:05:12

Actions on selected rows... New

Groups

Name Description Active Manager Parent Updated

certificates true Katherine Pierce (empty) 2026-02-02 18:04:42

platform true Manne Nirajan (empty) 2026-02-02 18:05:12

1 to 2 of 2

servicenow All

Groups

Favorites History Workspaces Admin

Group - certificates

Name: certificates Manager: Katherine Pierce Group email: Parent:

Description:

Update Delete

Roles (1) Group Members (1) Groups

Created Search

Group = certificates

Created	Role	Granted by	Inherits
2026-02-02 18:43:02	certification_role	(empty)	true

1 to 1 of 1

Actions on selected rows... Edit...

This screenshot shows the ServiceNow Groups interface. On the left, a sidebar navigation includes 'Survey', 'Administration', 'User Groups', 'System Definition', 'Search Groups', 'Text Index Groups', 'System Mailboxes', 'Email Account Groups', 'System Security', 'Users and Groups' (with 'Groups' selected), 'Reports', 'Groups Membership', and 'Group Trails'. The main content area is titled 'Group - certificates'. It displays basic group information: Name (certificates), Manager (Katherine Pierce), Group email (empty), and Parent (empty). Below this is a 'Roles' section showing one role assigned: 'certification_role' created on 2026-02-02 18:43:02, granted by (empty), and inheriting true. A 'Group Members' section shows one member: 'platform'. At the bottom, there are 'Actions on selected rows...' and an 'Edit...' button.

servicenow All

Groups

Favorites History Workspaces Admin

Groups

All > Created on Yesterday

Name	Description	Active	Manager	Parent	Updated
certificates		true	Katherine Pierce	(empty)	2026-02-02 18:04:42
platform		true	Manne Niranjan	(empty)	2026-02-02 18:05:12

Actions on selected rows... New

1 to 2 of 2

This screenshot shows the ServiceNow Groups interface. The sidebar navigation is identical to the first screenshot. The main content area is titled 'Groups' and shows a list of groups created on the previous day. The table has columns: Name, Description, Active, Manager, Parent, and Updated. Two groups are listed: 'certificates' (Active, Manager: Katherine Pierce, Updated: 2026-02-02 18:04:42) and 'platform' (Active, Manager: Manne Niranjan, Updated: 2026-02-02 18:05:12). At the bottom, there are 'Actions on selected rows...' and a 'New' button.

servicenow All

Favorites History Workspaces Admin Roles Search Actions on selected rows... New

system secur

Security Attributes
Security Attributes Audit
Machine Identity Access Control
IP Address Access Control
Processor Access Policies
Objects
Operations
Protocol Profiles
MID Protocol Profiles
High Security Settings
Users and Groups
Users
Groups
Roles
Access Role Detail View
Reports
Users
Groups Membership
Role Allocation

All > Created on Yesterday

Name	Description	Elevated privilege
certification_role	can deal with certification issues	false
Platform_role	can deal with platform related issues	false
u_operations_related_user		false

1 to 3 of 3

⋮

servicenow All

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

table

Archive Tables
Archive Knowledge Use
Archive Audit Result
System Classic Mobile UI
Table Titles
System Clone
Clone Definition
Exclude Tables
System Definition
Tables
Tables & Columns
Table Rotations
Decision Tables
Remote Table
Tables
Definitions
System Diagnostics
Stats
Table IOStats

All > Created on Yesterday

Label	Name	Extends table	Extensible	Updated
Operations related	u_operations_related	(empty)	false	2026-02-02 18:15:57

1 to 1 of 1

⋮

servicenow All

Table Operations related

Access Controls (9) Security Data Filters Labels (1) Database Indexes (3) Table Subscription Configuration (1)

Name + Search Actions on selected rows...

Name	Decision Type	Operation	Type	Active	Updated by	Updated
u_operations_related	Allow If	write	record	true	admin	2026-02-02 18:14:53
u_operations_related	Allow If	read	record	true	admin	2026-02-02 18:14:53
u_operations_related	Allow If	delete	record	true	admin	2026-02-02 18:14:53
u_operations_related	Allow If	create	record	true	admin	2026-02-02 18:14:53
u_operations_related.u_issue	Allow If	write	record	true	admin	2026-02-02 19:15:09
u_operations_related.u_name	Allow If	write	record	true	admin	2026-02-02 19:14:17
u_operations_related.u_priority	Allow If	write	record	true	admin	2026-02-02 19:12:30
u_operations_related.u_service_request_no	Allow If	write	record	true	admin	2026-02-02 19:11:14
u_operations_related.u_ticket_raised_date	Allow If	write	record	true	admin	2026-02-02 19:13:29

1 to 9 of 9

servicenow All

Access Controls Name + Search Actions on selected rows...

All > Created on Yesterday

Name	Decision Type	Operation	Type	Active	Updated by	Updated
u_operations_related	Allow If	write	record	true	admin	2026-02-02 18:14:53
u_operations_related	Allow If	read	record	true	admin	2026-02-02 18:14:53
u_operations_related	Allow If	delete	record	true	admin	2026-02-02 18:14:53
u_operations_related	Allow If	create	record	true	admin	2026-02-02 18:14:53
u_operations_related.u_issue	Allow If	write	record	true	admin	2026-02-02 19:15:09
u_operations_related.u_name	Allow If	write	record	true	admin	2026-02-02 19:14:17
u_operations_related.u_priority	Allow If	write	record	true	admin	2026-02-02 19:12:30
u_operations_related.u_service_request_no	Allow If	write	record	true	admin	2026-02-02 19:11:14
u_operations_related.u_ticket_raised_date	Allow If	write	record	true	admin	2026-02-02 19:13:29

Workflow Studio

Regarding Certificate Flow + Global | Regarding Platform Flow + Global

Homepage Operations Integrations

Playbooks Flows Subflows Triggers Actions Decision tables New

Flows (2) Last refreshed just now.

Name	Application	Status	Active	Updated	Updated by
Regarding Certificate	Global	Published	true	2026-02-03 18:27:30	admin
Regarding Platform	Global	Published	true	2026-02-03 18:33:22	admin

Showing 1-2 of 2 1 20 rows per page

Pick up where you left off

- Regarding Platform Last updated: 22 min. ago by System A...
- Regarding Certificate Last updated: 28 min. ago by System A...
- Deployment Migration to R... Last updated: 6 months ago by System...

Latest updates

- System Administrator modified Regarding Platform 22 min. ago
- System Administrator modified Regarding Certificate 28 min. ago
- System Administrator modified Deployment Migration to ReleaseOps 6 months ago
- System Administrator modified Multi-factor Authentication 8 months ago

Regarding Certificate Active

View: Test Edit flow Deactivate

TRIGGER

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

ACTIONS

1 Update Operations related Record

Action Properties

Action: Update Record

Action Inputs

* Record: Trigger -> Operations related...

* Table: Operations related [u_operation...]

* Fields: Assigned to Group certificates

+ Add field value

Data

- Flow Variables
- Trigger - Record Created or Updated
 - Operations related Record Record
 - Changed Fields Array/Object
 - Operations related Table Table
 - Run Start Time UTC Date/Time
 - Run Start Date/Time Date/Time
- 1 - Update Record
 - Operations related Record Record
 - Operations related Table Table
 - Action Status Object

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

Workflow Studio

Regarding Certificate Flow • Global

Regarding Platform Flow • Global

Regarding Platform

Active

Operations related Created or Updated where (Issue is unable to login to platform; Issue is regarding user expired; Issue is 404 error)

ACTIONS

1 Update Operations related Record

Action Properties

Action: Update Record

Action Inputs

- * Record: Trigger → Operations related
- * Table: Operations related [u_operations]
- * Fields: Assigned to Group → platform

Add field value

Close

Data

- Flow Variables
- Trigger - Record Created or Updated
- Operations related Record
- Changed Fields
- Operations related Table
- Run Start Time UTC
- Run Start Date/Time
- 1 - Update Record
- Operations related Record
- Operations related Table
- Action Status

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

New tab Cognizant | Sup... Job Profile Project Overview Humanize AI Te... AI Detector - O... Paraphrasing To... app.jointheset.com/students/jobprofiles/5593aa1-28da-4c2f-b5e9-b60866428a4b

Job Profile

Home Job Profiles My Profile Interviews Assessments Events Competitions Resume Launchpad Help

22°C Mostly cloudy

Cognizant 2026 On-Campus hiring for ServiceNow (GenC Pro)
Cognizant | Chennai, Hyderabad, Mumbai, Noida, Indore, Pune & Bengaluru | Full Time

You applied with resume : chitturveeravenuusercv.pdf.

Applied Click here to Withdraw

Job Description Hiring Workflow Eligibility Criteria Additional Questions

Opening Overview

Category: Category 1
Job Functions: Information Technology
Job Profile CTC: ₹400000 - ₹540000 per Annum
Other Info:

Job Description

Job description

- Analyse and implement ServiceNow configurations to support ITSM & other domain processes.
- Develop and maintain ServiceNow solutions to optimize operational monitoring and management.
- Customize and improve ServiceNow ITSM applications to streamline service management processes.

Search ENG IN 4:07 PM 2/4/2026

CONCLUSION

- This project successfully implemented an automated ticket assignment system using ServiceNow Workflow Studio for Corporation.
- The solution addressed the major issue of delays caused by manual ticket routing by automating the process using two flows: Regarding Certificate and Regarding Platform.
- Automation through Workflow Studio (Flow Designer) ensured tickets were assigned accurately and efficiently to the certificates or platform group based on issue type.
- Security was enhanced using nine ACLs, three custom roles, and group-based access management to protect the u_operations_related table.
- Testing with ServiceNow's built-in Test feature validated system reliability, correct routing behavior, and ACL enforcement.
- The project improved support team productivity and reduced overall incident response time at Corporation.
- Overall, the system provides a strong foundation for smarter and more efficient IT service operations, with clear scalability for future enhancements.

FUTURE SCOPE

- AI-based ticket categorization can be integrated for smarter and more accurate assignment decisions beyond rule-based routing.
- Predictive analytics can be added to identify recurring incidents and prevent issues before they impact end users.
- Dashboards and reporting modules can be developed for real-time monitoring of support performance and ticket volumes by group.
- The solution can be extended to automate other ITSM processes like change management, problem management, and service requests.
- Integration with external communication tools like Microsoft Teams or Slack can enhance collaboration and alert support teams instantly.
- Self-service portals can be enhanced to improve user experience in ticket creation and status tracking.
- Future improvements can include machine learning models for proactive incident resolution and intelligent priority assignment.
- Additional support groups and routing rules can be configured to scale the system to handle more issue categories across the organization.