



Project Title

Automated Network Request Management in ServiceNow

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Project overview

The **Automated Network Request Management in ServiceNow** project focuses on simplifying and accelerating the handling of network-related service requests. By leveraging ServiceNow's service catalog, workflows, and automation capabilities, the solution eliminates manual bottlenecks and ensures requests are processed efficiently. End users can easily submit requests through a self-service portal, while automated routing, approvals, and task assignments streamline fulfillment. Where possible, integration with network automation tools enables end-to-end execution without human intervention. This results in faster turnaround, improved SLA compliance, and enhanced transparency for both users and IT teams.

Table of Contents

1. Introduction
2. Project Objectives
3. Key Features
4. ServiceNow Developer Setup
5. Project Implementation in ServiceNow
6. Screenshots of Output
7. Conclusion

1. Introduction

Modern enterprises rely heavily on robust and efficient network services to support day-to-day business operations. As organizations grow, the demand for network-related requests—such as access provisioning, configuration changes, and connectivity support—also increases. Traditional manual request handling often leads to delays, errors, and limited visibility, impacting both productivity and user satisfaction.

To address these challenges, the **Automated Network Request Management in ServiceNow** project introduces a streamlined solution that leverages ServiceNow's workflow engine, service catalog, and automation features. By enabling end users to submit requests through a self-service portal and automating approvals, task assignments, and notifications, the system ensures faster, more accurate, and transparent request management.

This initiative not only enhances the user experience but also empowers IT teams by reducing repetitive tasks, improving SLA compliance, and allowing focus on strategic, high-value activities.

2. Project Objective

This project aims to design and implement a streamlined, automated solution for managing network-related service requests within ServiceNow. It enables end users to submit requests for network services through a user-friendly self-service portal.

The system leverages ServiceNow's workflow engine, catalog items, and approval processes to ensure requests are properly captured, validated, and routed for fulfillment. Upon submission, requests trigger automated notifications, task assignments, and—where applicable—integration with network automation tools or scripts to fulfill standard requests without manual intervention.

3. Key Features

- Custom service catalog for common network requests
- Dynamic forms to capture relevant request details
- Automated approval workflows based on request type and sensitivity
- Integration with infrastructure management or orchestration tools (optional)
- Real-time status updates and notifications to requesters and technicians

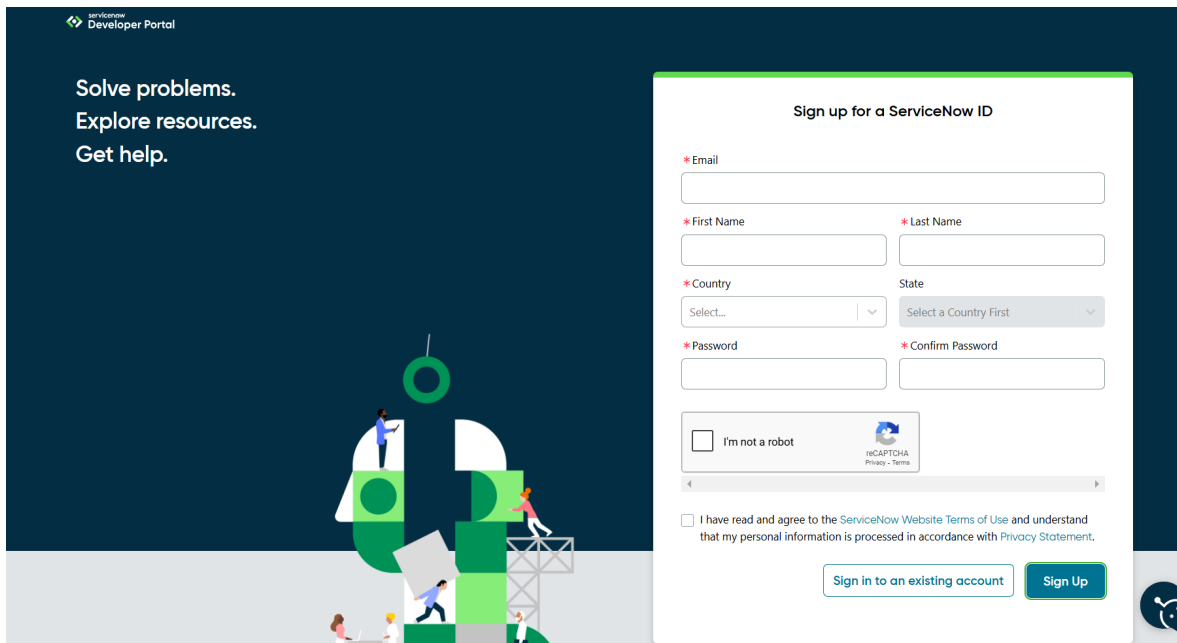
Reporting and analytics on request volume, resolution time, and SLA adherence

4. ServiceNow Developer Setup:

Create a Developer Account

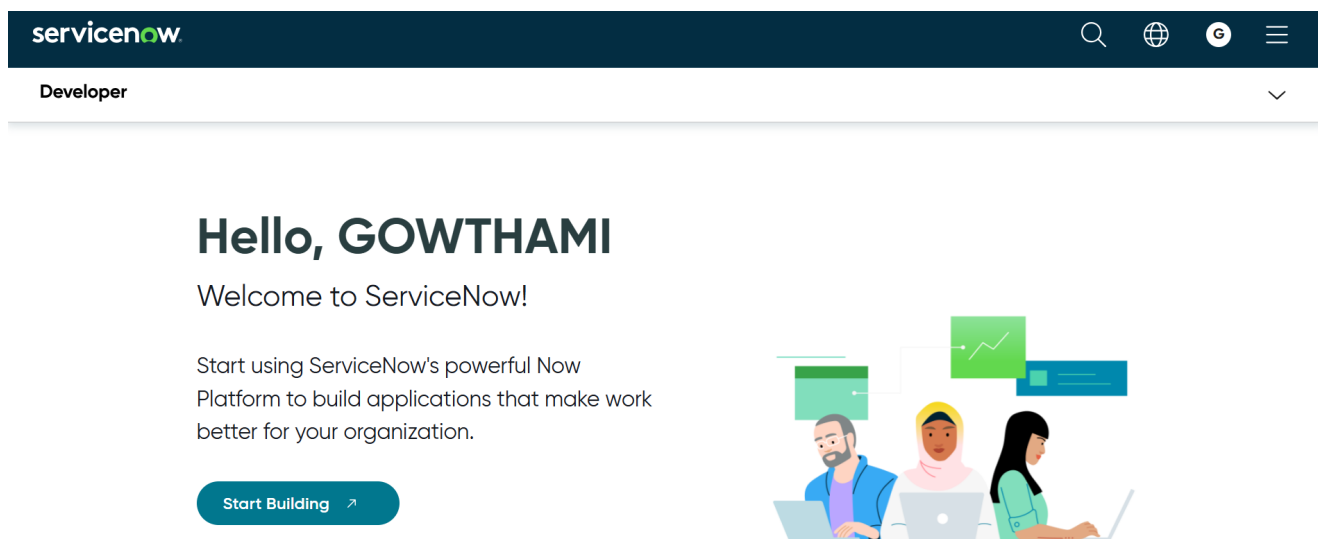
1. Go to ServiceNow Developer Portal(<https://developer.servicenow.com/dev.do>).

Sign up for a free developer account and fill out the following details.



The screenshot shows the ServiceNow Developer Portal sign-up page. On the left, there is a dark blue background with the text "Solve problems. Explore resources. Get help." and an illustration of people working on a large green and white geometric structure. On the right, there is a white sign-up form titled "Sign up for a ServiceNow ID". The form includes fields for Email, First Name, Last Name, Country (a dropdown menu), State (a dropdown menu), Password, and Confirm Password. There is also a checkbox for "I'm not a robot" with a CAPTCHA logo. At the bottom of the form, there is a checkbox for "I have read and agree to the ServiceNow Website Terms of Use and understand that my personal information is processed in accordance with Privacy Statement." and two buttons: "Sign in to an existing account" and "Sign Up".

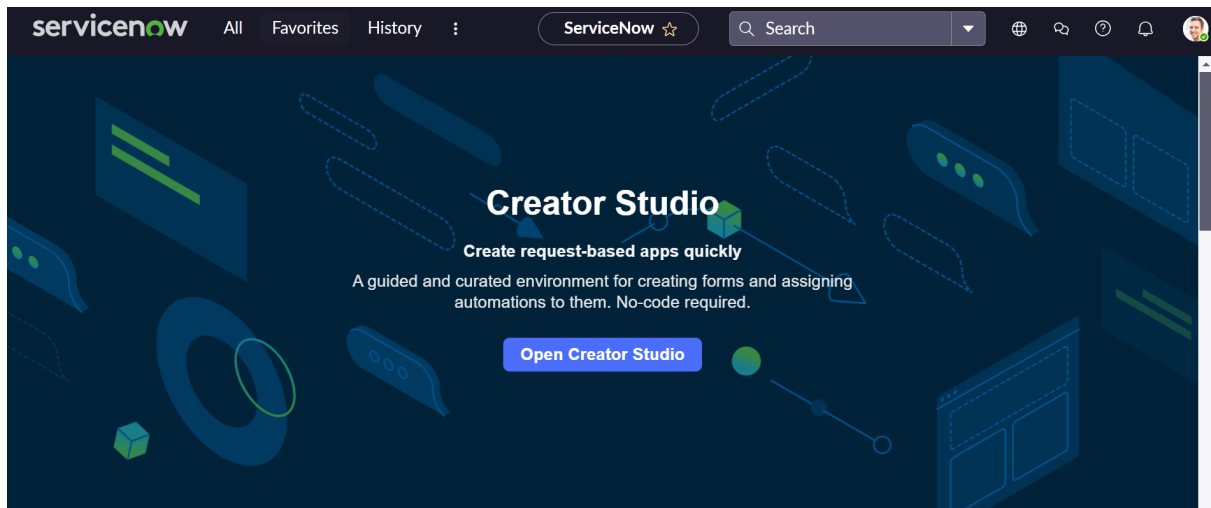
2. After signing up, you will get a verification mail to your provided email id. After the verification your ServiceNow Developer Portal Home Page will appear
3. Now click on start building it will take you to the section where you can **request a Personal Developer Instance (PDI)** or start using **App Engine Studio** and other tools.
4. **Profile Icon (Top Right Corner)** → Manage your account, request instances, and check your developer profile.



5. Project Implementation in ServiceNow:

After the instance building is completed, the page will be directed to your creator studio.

Creator Studio in ServiceNow provides a **guided, no-code environment** to build applications quickly. It is especially useful for creating **request-based applications** by defining forms, setting up tables, and automating workflows.



a. Service Catalog Creation

i. Creation of Service Catalog

1. Navigate to Application navigator
2. Click on All >> search for Service Catalog
3. Under Service Catalog>> Maintain items
4. Click on New
5. Fill the details >> Name– Network Request
6. Select Catalog>> Service Catalog
7. Select Category>> Network
8. Fill the Short Description as Network request Management
9. Click on Save.

< = Catalog Item
Network Request

Copy Try It Update Edit in Catalog Builder Delete

Name

Application

Catalogs

Category

Active ☒

Fulfillment automation level

State

Checked out

Owner

ii. Variables Configuration

Open the catalog item just created.

Scroll down to the **Variables** related list and click **New** to create form fields.

1. Select Variables type as Single, Multi line text, reference, choices etc as per requirement
2. Catalog item– Network Request
3. Order–100,200,300,,,,
4. Question– provide the variable label
5. Name–provide the variables name(used for scripting)
6. Tooltip– this will appear when cursor overed on the field
7. Example text – this will suggest what we need to enter on the field.
8. Mandatory, Read-Only– need to configure on demand
9. Auto populate– need to select dependent variable, apply dot walking to get selected value.
10. Click on Save or Submit.

ies (10)

Variable Sets (1)

Catalog UI Policies (2)

Catalog Client Scripts

Available For

Not Available For

Categories (1)

Catalogs (1)

Catalog Data Lookup Definitions

Related Articles

Catalog Items

Assigned Topics

▼

Order

Search

⊞

—

Actions on selected rows...

▼

g item = Network Request

Type	Question	Order ^
Container Start	Service Details	
Multiple Choice	Is this a new network connection or Relo...	
Single Line Text	If this is a relocation please provide y...	
Single Line Text	If this is a relocation please provide y...	
Container Start	Location & Devices Type	
Single Line Text	Please provide address here	
Select Box	Types of devices	
Single Line Text	Provide device details	
Container Start	Additional Information	
Single Line Text	If any , Please write here	

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1 to 10 of 10

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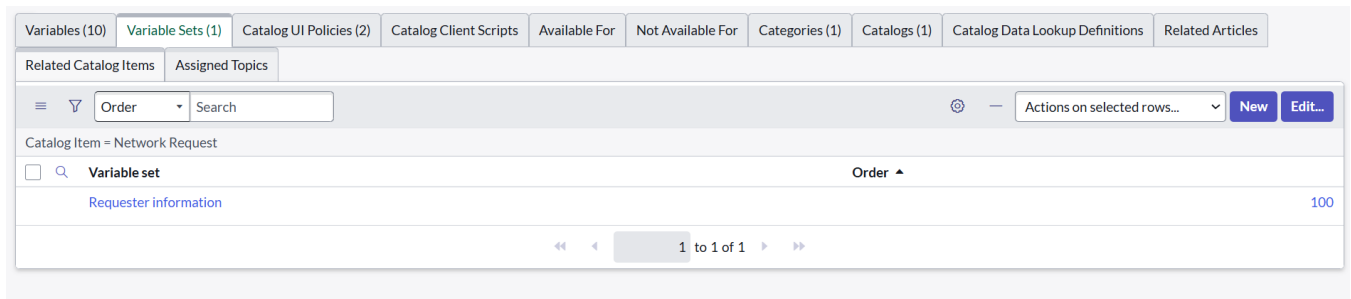
iii. Variables Types

1. Is this a New connection or Relocation? >> **Choice** >> **New/ Relocation/None**
2. If this is a relocation, Please provide your relocated address here>>**String**
3. Types of devices>> **Choice**>> **Laptop/Mobiles/Others**
4. Please provide address here>>**String**
5. Provide device details here>> **String**
6. If anything else, please specify>> **String**

iv. Variable Set Configuration

To enhance form usability:

- Navigate to the **Variable Sets** (optional).
- Follow the same procedure as we used for Variables Creation, for the variable set as well.
- Apply variable sets to the catalog item.



Variables Types

1. Opened on behalf of >> Reference>> reference to user table
2. Email Id >> Single line text >> Auto populate by Opened on behalf of variable.
3. User name >>Single line text >> Auto populate by Opened on behalf of variable.
4. Phone Number >>Single line text >> Auto populate by Opened on behalf of

variable.

5. Proof of Document >> Attachment

Variables (5)				
Catalog UI Policies				
Catalog Client Scripts				
Included In (1)				
Catalog Data Lookup Definitions				
Variable set = Requester information				
<input type="checkbox"/>	Name	Type	Question	Order
<input type="checkbox"/>	opened_on_behalf_of	Reference	opened on behalf of	100
<input type="checkbox"/>	email_id	Single Line Text	Email id	200
<input type="checkbox"/>	user_name	Single Line Text	User name	300
<input type="checkbox"/>	phone_number	Single Line Text	Phone number	400
<input type="checkbox"/>	proof_of_document	Attachment	Proof of document	500

v. Catalog UI Policy Configuration

Scenario: If user selects types of devices is **Others**, then Please specify field should populate.

Procedure:

1. Navigate to catalog items
2. Open Network Request item
3. In related list, we have Catalog UI policy
4. Click on New button to configure New UI policy
5. Select Applies to as Catalog item
6. Select catalog item as Network Request
7. Provide short description, if required
8. Apply condition>> **types of devices** is **others**
9. Click on save, after saving the form will get UI policy actions in the related list
10. Click on New button to configure new UI Policy action, and Select the variable which we want to display on condition
11. Make Visible True as per our requirement
12. Update the UI Policy and Test the same on Catalog form

Variable Sets (1)	Catalog UI Policies (2)	Catalog Client Scripts	Available For	Not Available For	Categories (1)	Catalogs (1)	Catalog Data Lookup Definitions	Related
Log Items	Assigned Topics							
Order	Search							Actions on selected
= Network Request								
Short description	Variable set	Conditions	Reverse if false	On load	Inherit	Updated		
Types of devices is others	(empty)		true	true	false	2025-09-16 02:18:20		
Location fields hiding	(empty)		true	true	false	2025-09-16 02:22:03		

b. Creation of Table

i. Creation of Table

1. **Navigate to:** System Definition > **Tables**.
 - a. Click **New** to create a new table.
 - b. Fill in **Table Information**:
 - i. **Name:** Name of the table -----
 - ii. **Label:** Backend name of the table-----
 - iii. **Auto-generate schema:** Leave it checked if you'd like ServiceNow to auto-generate schema fields.
 - c. Click **Submit** to create the table.

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Table

Network Database Table

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Delete

Update

Delete All Records

↑

↓

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

Application ⓘ

* Name

Remote Table ☐

ii. Creation of fields

In ServiceNow, fields are created at the **table** level. To create a field, you first need to identify the table where the field will reside.

1. In the **Application Navigator** (left-side panel), type **Tables** in the search bar.
2. Under **System Definition**, click **Tables**. This will take you to a list of all tables in the system.

a. Select the Table to Add the Field

- From the list of tables, search for and select the **table** you want to add a field to. For example, if you want to add a field to the **Network database** table:
 - Type "**Network database**" in the search box or scroll through the list.
 - Click on the **Network database** table name. You'll now see a list of all fields (columns) associated with the **Network database** table.

b. Open the Table's Columns

- After selecting the table, you'll be brought to a view that lists all the columns (fields) that currently exist on that table.
- To create a new field (column), go to the **Columns** tab (this is where all fields for the selected table are listed).

c. Create a New Field

- In the **Columns** tab, click the **New** button located at the top-right corner of the page to create a new field.
- You'll now be prompted with a form where you need to define the new field. The following fields need to be filled out

Table Columns <input type="text" value="for text"/> Search 1 to 15 of 15 New						
Dictionary Entries						
	Column label	Type	Reference	Max length	Default value	Display
×	Customer Document	String	(empty)		40	false
	Updated by	String	(empty)		40	false
	Updates	Integer	(empty)		40	false
×	Assigned to	Reference	User		32	false
×	Customer Address	String	(empty)		40	false
×	Device Details	String	(empty)		40	false
×	Request Number	String	(empty)		40	false
	Updated	Date/Time	(empty)		40	false
×	Work status	String	(empty)		40	false
	Created by	String	(empty)		40	false
×	Assignment Group	Reference	Group		32	false
×	Date of Enquiry	Date	(empty)		40	false
	Created	Date/Time	(empty)		40	false
	Sys ID	Sys ID (GUID)	(empty)		32	false
×	Requested for	String	(empty)		40	false
+	Insert a new row...					

c. Request Approvals Creation(Related List)

i. Creation of Related List

1. Navigate to **System Definition > Relationships**.
2. Click **New** to create a new relationship.
3. Fill in the following details:
 - o **Name:** Approval Request
 - o **Applies to Table :** Network Database table.
 - o **Queries from Table :** Sysapprovals table.
 - o **Active:** Make sure it's set to **True**.
4. Save the relationship.

The screenshot shows a form titled 'Relationship Request Approvals'. It includes a 'Name' field with the value 'Request Approvals', an 'Advanced' checkbox, an 'Application' dropdown set to 'Global', an 'Applies to table' dropdown set to 'Network Database Table [u_network...]', and a 'Queries from table' dropdown set to 'Approval [sysapproval_approver]'. There are 'Update' and 'Delete' buttons at the top right.

ii. Adding Related List to the Table

1. Navigate to **Form Designer** for the table where you want to show related records.
2. Add a **Related List** widget to the form.
3. Select the **Related List** you want to show.

Query with ☐ Turn on ECMAScript 2021 (ES12) mode

```
1 (function refineQuery(current, parent) {
2
3     // Add your code here, such as current.addQuery(field, value);
4     current.addQuery('source_table',parent.getTableName());
5     current.addQuery('document_id',parent.sys_id);
6
7 })(current, parent);
```

d. Creation & Implementation of flows, Actions in Flow Designer

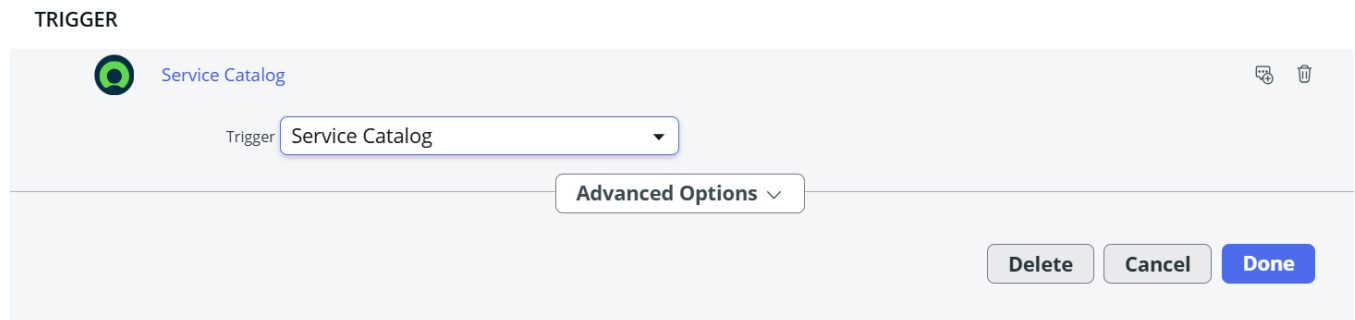
i. Creation of Flow

1. Navigate to Flow designer home page
2. Click on New to create a new flow
3. Provide flow name as **Network Request**
4. Provide description of flow
5. Click on Build flow.

ii. Configuring Trigger

1. Click on (+) Icon to Configure the Trigger
2. Select Trigger as Application >> Service catalog
3. Click on **Done**.

TRIGGER



Service Catalog

Trigger Service Catalog

Advanced Options

Delete Cancel Done



iii. Configuring Actions

Click on Actions button to configure new action

1. Get Catalog Variables

- Click on Action, search for Get Catalog Variables
- Select Get Catalog Variables
- Action Inputs>> Trigger>>service catalog>>Requested Item
- Template catalog items >> Select table >> Network Request



- Select the Required Variables and Move to the selected area.
- Click on done

1  Get Catalog Variables from Network Request 

Action Properties

Action Get Catalog Variables ▼

Action Inputs

* Submitted Request [Requested Item] Trigger ~... ▶ Requested Item ... ✕  

Select one or more values from the Template Catalog Items and Variable Sets, and select the required Catalog Variables to generate output data pills. You cannot choose the same Catalog Variable from multiple Template Catalog Items and Variable Sets.

* Template Catalog Items and Variable Sets [Catalog Items and Variable Sets] Network Request ✕ 🔍 ⓘ

Catalog Variables

Available

No available values

Selected

opened_on_behalf_of
is_this_a_new_network_conr
if_this_is_a_relocation_pleas
if_this_is_a_relocation_pleas
please_provide_address_her
types_of_devices
provide_device_details
if_any_please_write_here
email_id
user_name
phone number

>

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v

Note: If removing a variable from the 'Selected' list, it will be moved to 'Available' list only if the variable is from the selected Template Catalog Items and Variable Sets. Otherwise, the variable is

2. Create Record

- Select action as Create Record
- Select table as Network Database
- Click on Add fields button to configure the fields
- Configure the Required fields as shown in the below picture
- Click on done

2 **Create Network Database Table Record**

Action Properties

Action: **Create Record**

Action Inputs

* Table: **Network Database Table [u_net...**

* Fields:

Request Number	Trigger - Servic... ▶ ... ▶ Num...
Requested for	1 - Get Catalog Va... ▶ ... ▶ Na...
Work status	New
Assignment Group	Network
Date of Enquiry	Trigger - Service... ▶ ... ▶ Creat...
Device Details	1 - Get Catal... ▶ types_of_de...
Customer Address	1 - G... ▶ please_provide_addr...

+ Add field value

Delete Cancel Done

3. Send Email

- Select action as Send Email
- Select target record >> Create record>> network database table
- Table will be selected automatically
- Cofigure To, CC, BCC as per our requirements(select static/dynamic)
- Provide Subject & Body as shown in the below picture
- Click on done

• then **Send Email**

Action Properties

Action: **Send Email**

Action Inputs

Target Record: **2 - ... ▶ Network Database Tab...**

Table: **Network Database Table [u_net...**

Include Watermark: ☒

* To: **1 - Get Catalog Va... ▶ ... ▶ Em...**

CC: **2 - Create Record ▶ ... ▶ Email**

BCC:

* Subject: **Request has been created**

Body:

↶ ↷ **B I** [Text Alignment Icons] [Link Icon] [Code Icon] **OpenSans.So...** **10pt** [Grid Icon]

Hello **2 - Create ... ▶ ... ▶ Requested...**

we have been received your request with request number **2 - Creat... ▶ ... ▶ Request Nu...**,

sorry for the inconvenience and your request will be resolved within 2 business working days.

Thanks for contacting us .

Network Team

Delete Cancel Done

4. Ask for approvals

- Select action as Ask for Approval
- Select target record >> Create record>> network database table
- Provide Approval Reason>> Waiting for approval
- Configure approval rules>> Approve, reject, approve/reject
- Select approvals as Anyone approves, everyone approves etc.
- We can select approvals like static/dynamic as shown below
- Click on done

The screenshot shows the 'Ask For Approval' configuration window. At the top, the title is 'Ask For Approval'. Below it, the 'Action Properties' section shows the 'Action' set to 'Ask For Approval'. The 'Action Inputs' section includes fields for 'Record' (Trigger -> Requested Item ...), 'Table' (Requested Item [sc_req_item]), 'Approval Reason' (waiting for approval), 'Approval Field' (Approval), and 'Journal Field' (Approval history). There is a 'Rules' section with a dropdown for 'Approve' and a 'When' condition set to 'Anyone approves' with a 'Network X' field. A 'Due Date' dropdown is set to 'None'. On the right, there are buttons for 'Add another OR rule set', 'Delete', 'Cancel', and 'Done'. A logic builder shows 'OR' and 'AND' options.

5. Flow Logic

- Select action as flow logic and Select If condition
- Apply condition >> Ask for approvals state is **Approved/Rejected** as per requirement
- Click on done

The screenshot shows the 'If' condition configuration window. The 'Condition Label' is 'If Request is approved'. The 'Condition 1' is set to 'Trigger - Service... > ... > Appro...' with a dropdown set to 'is' and a field set to 'Approved'. There are buttons for 'Add another condition set(OR)', 'Delete', 'Cancel', and 'Done'. A logic builder shows 'or' and 'and' options.

6. Update Record

- Select action as Update Record
- Select record as >> create record>> network database
- Table will be selected automatically
- Configure the fields as per requirement, as shown in below
- Click on done

The screenshot shows the configuration window for the 'Update Network Database Table Record' action. The 'Action' dropdown is set to 'Update Record'. Under 'Action Inputs', the 'Record' is '2 - ... > Network Database Tab...', the 'Table' is 'Network Database Table [u_net...', and the 'Fields' are 'Assigned to' (value: 'Abel Tutor') and 'Work status' (value: 'work in process'). There is an 'Add field value' button. At the bottom right are 'Delete', 'Cancel', and 'Done' buttons.

iv. Flow Chart

TRIGGER



ACTIONS [Select multiple](#)

1 [Get Catalog Variables from Network Request](#) ⓘ

2 [Create Network Database Table Record](#) ⓘ

3 [Ask For Approval](#) ⓘ

4 [If Request is approved](#)

5 [Send Email](#) ⓘ

6 [Update Network Database Table Record](#) ⓘ

6. Screenshots of Output

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Service Catalog > Top Requests > Network Request

...

Search catalog

▼

Network Services Request

▶

Exists in categories

opened on behalf of

Email id

User name

Is this a new network connection or Relocation?

Relocation

New

None

If this is a relocation please provide your location

If this is a relocation please provide your relocated address here

Please provide address here

Types of devices

Mobiles

▼

If any , Please write here

Phone number

Proof of document

Click to add...

Order this Item

Quantity

1

▼

Delivery time

0 Days

Order Now

Add to Cart

Shopping Cart

Empty

fig : creation of service catalog

EXECUTION DETAILS

Network Request

Show Action Details

Run as: System Administrator

Open flow logs

State

Start time

FLOW STATISTICS

Completed

2025-09-17 11:49:34

569ms

TRIGGER

Catalog Item Requested

ACTIONS

1

Get Catalog Variables from Network Request

Core Action

Completed

2025-09-17 11:49:34

19ms

2

Create Record

Core Action

Completed

2025-09-17 11:49:34

6ms

3

Ask For Approval

Core Action

Completed

2025-09-17 11:49:34

512ms

4

If If Request is approved

Flow Logic

Evaluated - True

2025-09-17 11:49:34

21ms

5

Send Email

Completed

2025-09-17 11:49:34

20ms

6

Update Record

Core Action

Completed

2025-09-17 11:49:34

6ms

ERROR HANDLER

fig : test for flow execution

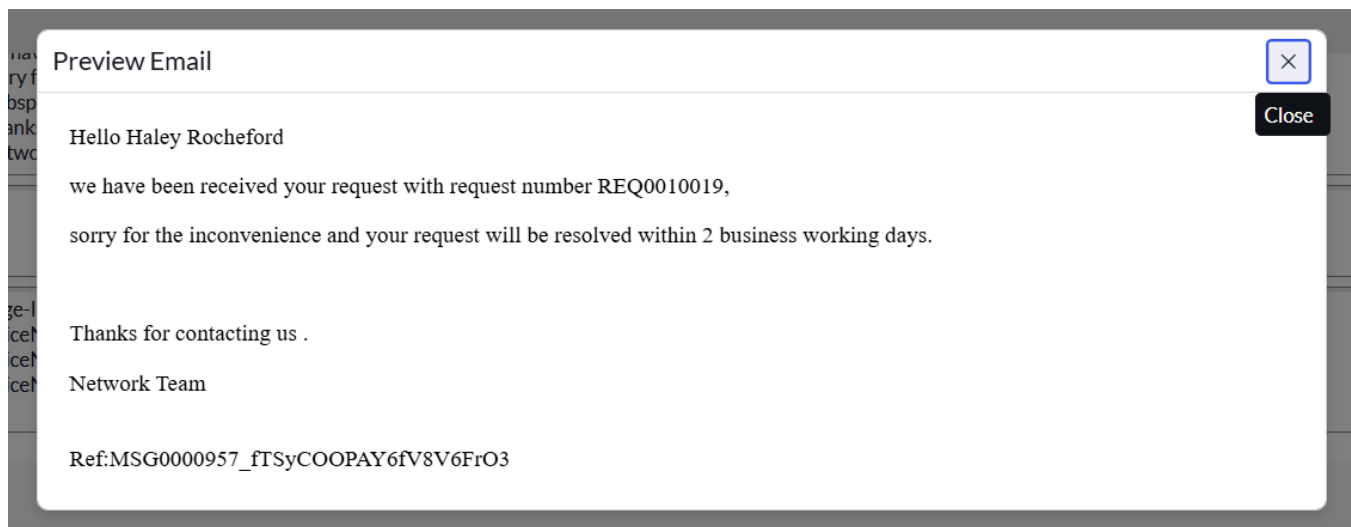


fig : email notification

7. Conclusion

The **Automated Network Request Management in ServiceNow** project provides a streamlined, reliable, and user-friendly solution for handling network-related service requests. By automating approvals, routing, and notifications, the system eliminates delays and errors associated with manual processes while offering transparency through real-time updates and reporting.

This initiative not only improves SLA compliance and user satisfaction but also optimizes IT operations by reducing repetitive workload and enabling faster fulfillment. Ultimately, it supports the organization's goal of delivering **efficient, high-quality, and responsive network services**, empowering both end users and IT teams.