

**ServiceNow Certified Application Developer**

**SmartInternz**

**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

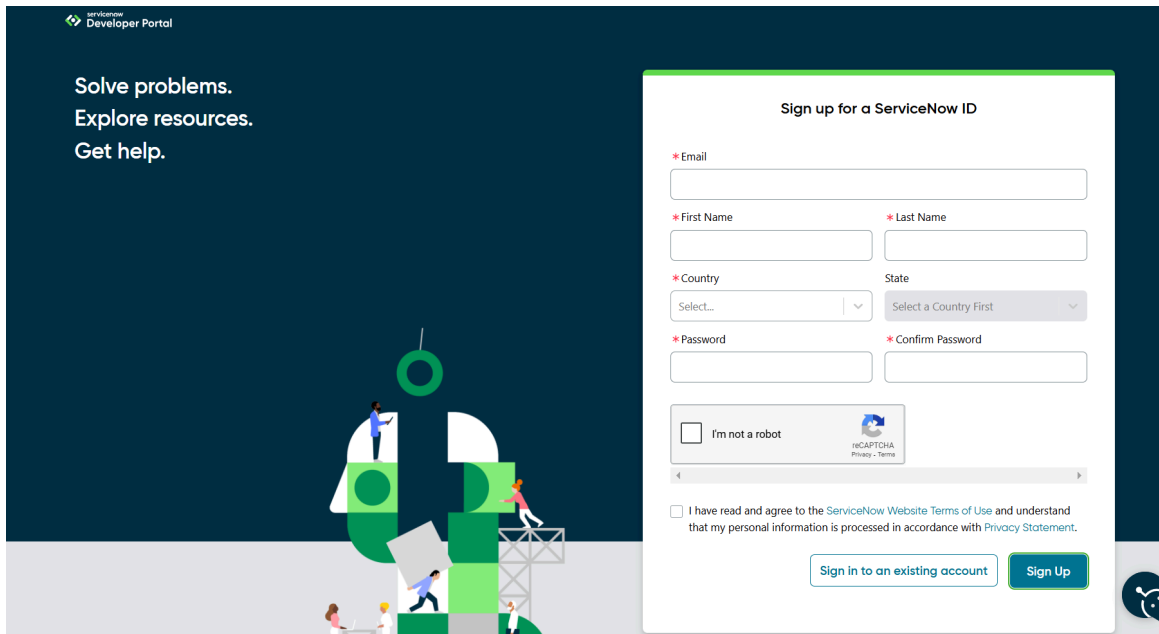
- Custom service catalog for common network requests
- Dynamic forms to capture relevant request details
- Automated approval workflows based on request type and sensitivity
- Integration with infrastructure management or orchestration tools (optional)
- Real-time status updates and notifications to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



**ServiceNow Developer Portal**

Solve problems.  
Explore resources.  
Get help.


### Sign up for a ServiceNow ID

\* Email

\* First Name  \* Last Name

\* Country  State

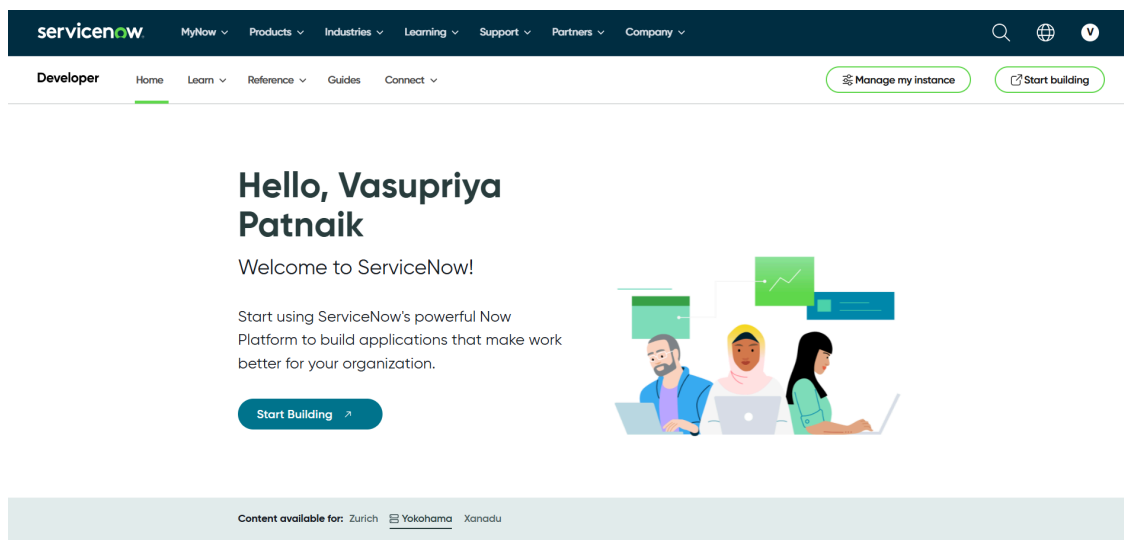
\* Password  \* Confirm Password

☐ I'm not a robot 

☐ 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](#).

[Sign in to an existing account](#) [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.



**servicenow** MyNow ▾ Products ▾ Industries ▾ Learning ▾ Support ▾ Partners ▾ Company ▾

**Developer** Home ▾ Learn ▾ Reference ▾ Guides ▾ Connect ▾ [Manage my instance](#) [Start building](#)

## Hello, Vasupriya Patnaik

Welcome to ServiceNow!

Start using ServiceNow's powerful Now Platform to build applications that make work better for your organization.

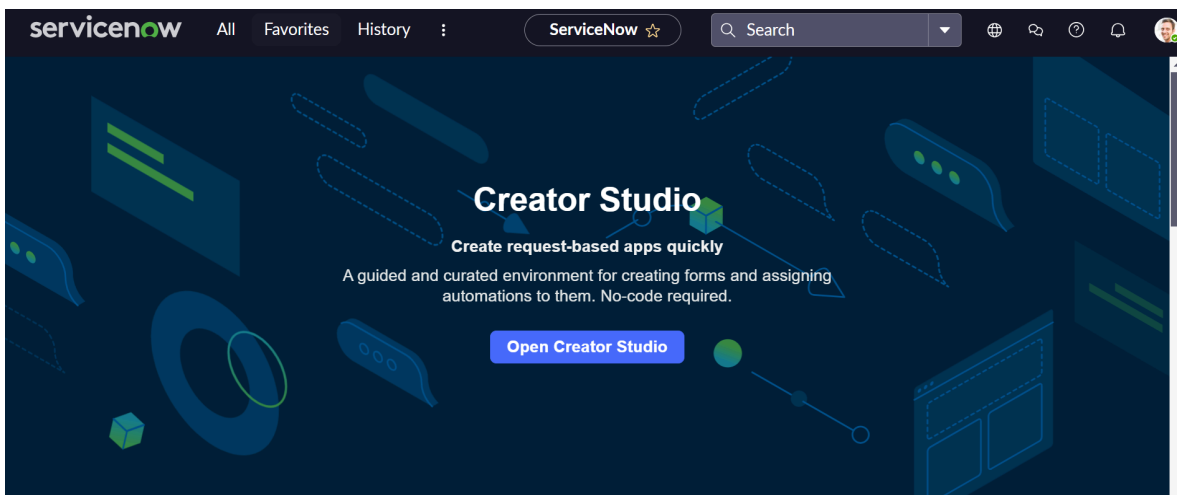
[Start Building](#)

Content available for: Zurich [Yokohama](#) [Xanadu](#)

## 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.

←

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Catalog Item  
Network Request

⌵

ⓘ

⌵

⋮

Copy

Try It

Update

Edit in Catalog Builder

Delete

⌵

Catalog Items are goods or services available to order from the service catalog. Items can be anything from hardware, like tablets and phones, to software applications, to furniture and office supplies.

- Enter a Name and Short description to display for the item.
- Enter a Price, approvals, variables, and other information as needed.

Name

Network Request

Catalogs

🔒

× Service Catalog

Category

Networks and Connectivity

🔍

ⓘ

State

-- None --

Checked out

-- None --

Owner

System Administrator

🔍

ⓘ

Application

Global

ⓘ

Active

☑

Fulfillment automation level

Unspecified

⌵

Open the catalog item just created.

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.



## 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			
Order Search			
Variable set = Requester information			
Name	Type	Question	Order
email_id	Single Line Text	Email Id	
proof_of_document	Attachment	Proof of Document	
opened_on_behalf_of	Reference	Opened on behalf of	
username	Single Line Text	User name	
phonenumber	Single Line Text	Phone Number	
1 to 5 of 5			

## 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

Variables (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

Related Catalog Items

Assigned Topics

≡

▽

Order

Search

⌕

🔗

—

Actions on selected rows...

New

Catalog item = Network Request

<input type="checkbox"/>	Short description	Variable set	Conditions	Reverse if false	On load	Inherit	Updated	Order
	Types of devices is others	(empty)		true	true	false	2025-09-17 07:51:06	100
	Relocation fields hiding	(empty)		true	true	false	2025-09-18 02:07:31	100

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⏩

1 to 2 of 2

⏪

⏩

## 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.

<	Table	Network DataBase Table	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. <a href="#">More Info</a>							
* Label	Network DataBase Table			Application	Global		
* Name	u_network_database_table			Remote Table	<input type="checkbox"/>		

## 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:

1. Type "**Network database**" in the search box or scroll through the list.
2. 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

1. In the **Columns** tab, click the **New** button located at the top-right corner of the page to create a new field.
2. 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 for text Search						
Dictionary Entries						
	Column label	Type	Reference	Max length	Default value	Display
×	Work Status	String	(empty)		40	false
×	Device Details	String	(empty)		40	false
×	Requested For	String	(empty)		40	false
×	Date of Enquiry	Date	(empty)		40	false
	Sys ID	Sys ID (GUID)	(empty)		32	false
	Created by	String	(empty)		40	false
	Created	Date/Time	(empty)		40	false
	Updated by	String	(empty)		40	false
	Updates	Integer	(empty)		40	false
	Updated	Date/Time	(empty)		40	false
×	Customer Address	String	(empty)		40	false
×	Request Number	String	(empty)		40	false
×	Assignment Group	Reference	Group		32	false
×	Customer Document	String	(empty)		40	false
×	Assigned to	Reference	User		32	false

## 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.

Relationship Approval Request		Application Global	Update Delete
Name Approval Request	Advanced <input type="checkbox"/>	Applies to table Network DataBase Table [u_network_da...	Queries from table Approval [sysapproval_approver]

### 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

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

please\_provide\_address\_here

types\_of\_devices

email\_id

proof\_of\_document

username

phonenumber

is\_this\_a\_new\_connection\_or

if\_this\_is\_a\_relocation\_please

if\_this\_is\_a\_relocation\_please

provide\_device\_details

**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. 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

3 **Ask For Approval**

**Action Properties**

Action: Ask For Approval

**Action Inputs**

\* Record: Trigger - ... ▶ Requested Item ...

Table: Requested Item [sc\_req\_item]

Approval Reason: Waiting for approval

Approval Field: Approval

Journal Field: Approval history

\* Rules

Approve When: Anyone approves Network X

Due Date: None

Add another OR rule set

OR AND

Delete Cancel Done

#### 4. 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' configuration window. The 'Condition Label' is 'If Request is Approved'. Under 'Condition 1', there is a dropdown menu showing 'Trigger - Servic...' followed by 'is' and another dropdown showing 'Approved'. There are also 'or' and 'and' buttons. At the bottom right are 'Delete', 'Cancel', and 'Done' buttons.

#### 5. Send Email


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

The screenshot shows the 'Send Email' configuration window. Under 'Action Properties', the 'Action' is 'Send Email'. Under 'Action Inputs', 'Target Record' is '2 - ... Network DataBase Ta...', 'Table' is 'Network DataBase Table [u\_net...', 'Include Watermark' is checked, 'To' is '1 - Get Catalog Va... Em...', 'CC' is '2 - Create Record ... Email', 'BCC' is empty, and 'Subject' is 'Request had been created'. The 'Body' section shows a text editor with the following content: 'Hello 2 - Create ... Requested ...', 'We have received your request with request number: 2 - Creat... Request Niu...', 'Sorry for the inconvenience and Your request will be resolved within 2 business working days.', 'Thanks for contacting us.', and 'Network Team'. At the bottom right are 'Delete', 'Cancel', and 'Done' buttons.

#### 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

 Update Network DataBase Table Record ⓘ

Action Properties

Action

Update Record

Action Inputs

\* Record

2 - ... ▶ Network DataBase Ta...

✕

\* Table

Network DataBase Table [u\_net...

✕

\* Fields

Assigned to

✕

Abel Tuter

✕

Work Status

✕

In Progress

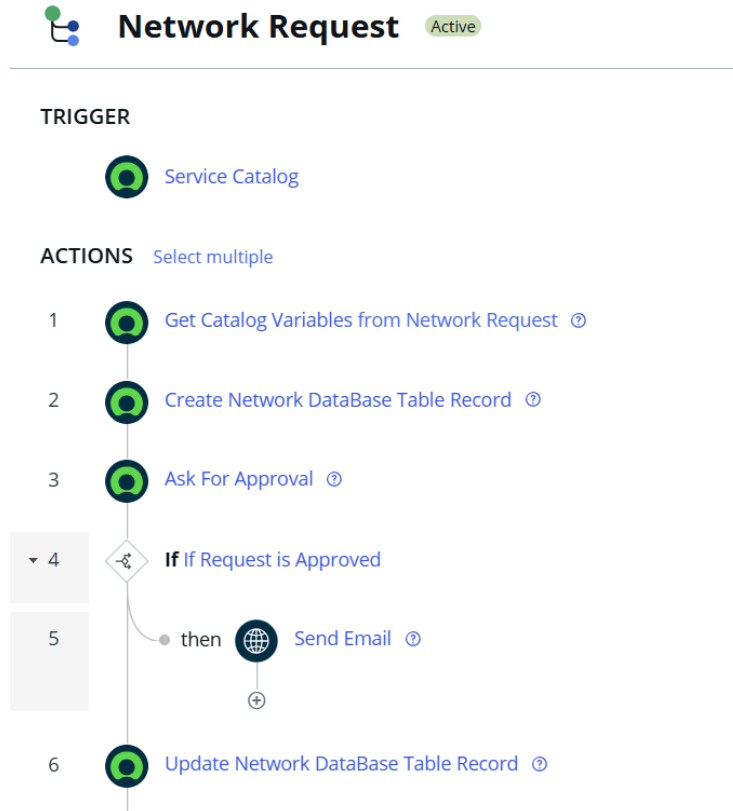
+ Add field value

Delete

Cancel

Done

## iv. Flow Chart





## 6. Screenshots of Output

Home > Service Catalog > Networks and Connectivity > Network Request

Search Catalog

Network Request

Network request Management

\* Indicates required

Requester information

Email Id

User name

Proof of Document

Upload

Phone Number

Opened on behalf of

Is this a New connection or Relocation?

New

Relocation

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

Laptop

Mobile

Others

None

\* Provide device details here

If anything else, please specify

Add attachments

Quantity: 1

Delivery Time: 0 Days

Add to Cart

Save as Draft

Order Now

Required information

Provide device details here

fig : Creation of Service Catalog

EXECUTION DETAILS

Network Request

Test Run - Completed

Open flow

Open context record

Show Action Details

Run as: System Administrator

Open flow logs

Completed

2025-09-18 08:04:11

562ms

FLOW STATISTICS

TRIGGER

Catalog Item Requested

ACTIONS

1

Get Catalog Variables from Network Request

Core Action

Completed

2025-09-18 08:04:11

24ms

2

Create Record

Core Action

Completed

2025-09-18 08:04:11

10ms

3

Ask For Approval

Core Action

Completed

2025-09-18 08:04:11

504ms

4

If if Request is Approved

Flow Logic

Evaluated - True

2025-09-18 08:04:11

18ms

5

Send Email

Core Action

Completed

2025-09-18 08:04:11

18ms

6

Update Record

Core Action

Completed

2025-09-18 08:04:11

3ms

fig : Test for flow execution

## Preview Email



Close

Hello Abraham Lincoln

We have received your request with request number: REQ0010006,

Sorry for the inconvenience and Your request will be resolved within 2 business working days.

Thanks for contacting us.

Network Team

Ref:MSG0000329\_NOe0ChMxVT9VrTxpkI5l

*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.