

Automated Network Request Management in ServiceNow

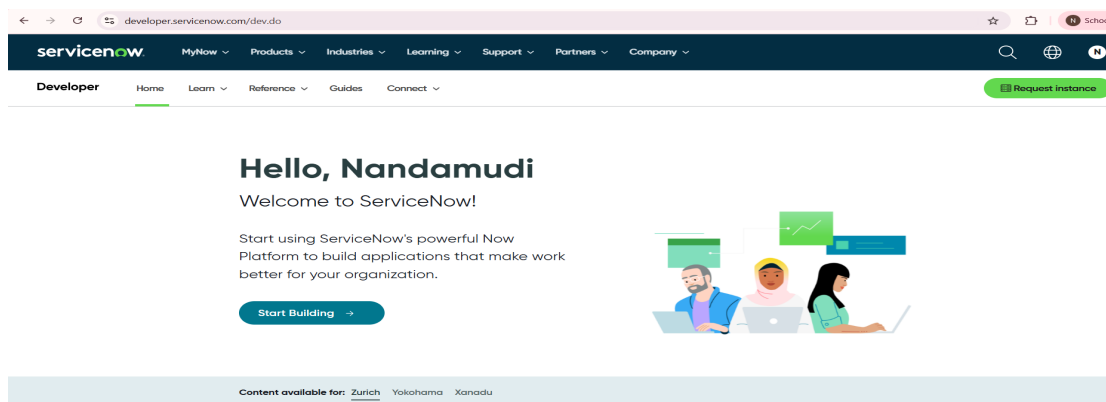
Project Description:

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.

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
- **Access the Developer Site**
- Go to <https://developer.servicenow.com/> and sign in with your developer account.
- After a successful sign-in, the landing page shows as below:



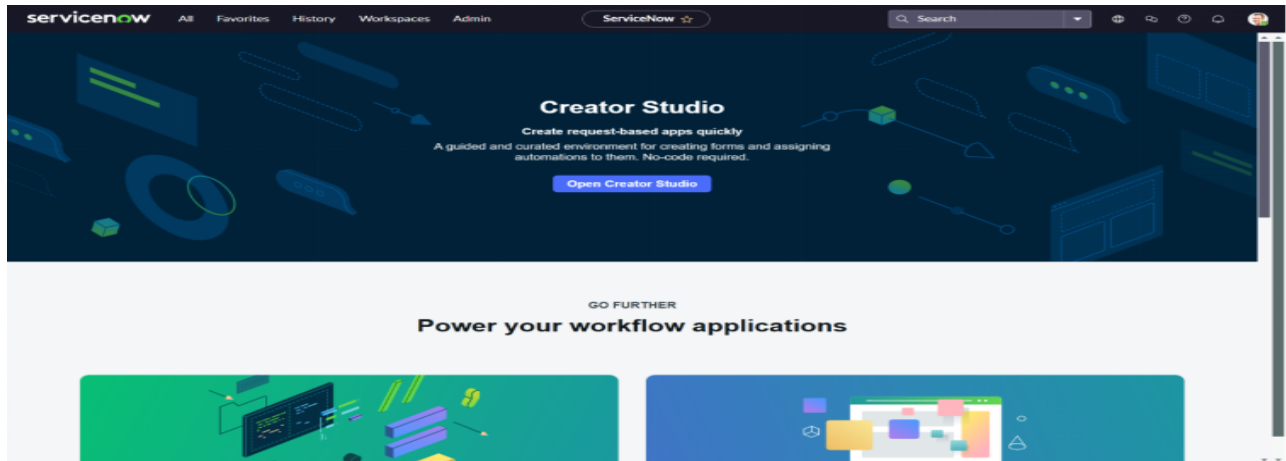
Start Building an Instance

On the welcome page, click **Start Building**.

Choose an **Instance location** if prompted (for example: Zurich, Yokohama, or the region closest to you).

Click **Request Instance** or **Start Building** again.

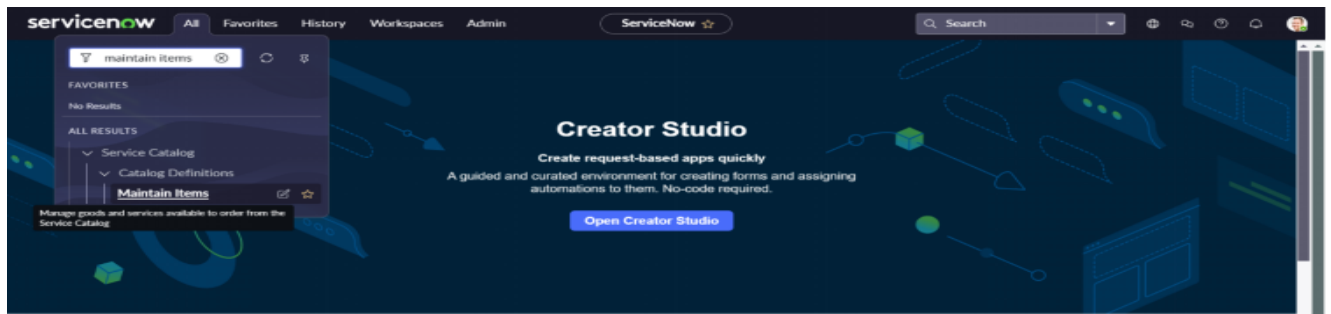
Wait while ServiceNow provisions your **personal developer instance** (this may take a minute or two).



Service Catalog Creation

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.



Variable Configuration:

Go to the Variables Tab:

1. Open the catalog item you just created (Service Catalog → Catalog Definitions → Maintain Items).
2. Click the Variables related list at the bottom of the form.
3. Click New to create a variable.

Type	Question	Order
Container Start	service details	200
Multiple Choice	Is this a new network connection or a re...	300
Single Line Text	If this is a relocation, please provide	310

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

Text	Value	Order	Inactive
New	N	100	false
Relocation	R	200	false
None	No	300	false

Text	Value	Order	Inactive
Laptop	LA	100	false
Mobile	MO	200	false
Others	Ot	300	false

Variable Set Configuration:

Variable Sets allow you to reuse common variables across multiple catalog items.

Navigate to Service Catalog → Catalog Variables → Variable Sets.

Create a set, add variables to it, then associate the set with multiple items.

Create Title as Requester Information ,Type as Single Row and Layout as 2 Columns Wide,one side then the other

Variable Set: Requester Information

* Title: Requester Information

* Internal name: requester_information

Order: 100

Type: Single Row

Description:

Application: Global

Display title: ☐

Layout: 2 Columns Wide, one side, then the other

Update Delete

Variable Types In Variable Set:

Opened on behalf of >> Reference >> reference to user table

Variable opened on behalf of

Application: Global

Type: Reference

Order:

Variable set: Requester Information

Active: ☒

Mandatory: ☐

Read only: ☐

Hidden: ☐

Disable automatic slot fill based on user context: ☐

Question Annotation Type Specifications Default Value Auto-populate Permission Availability

Values specific to this variable Type

Variable Width: System Default Width (50) %

Not honored in 2 column container

* Reference: User [sys_user]

Use reference qualifier: Simple

Reference qualifier condition: Add Filter Condition Add OR Clause

-- choose field -- -- oper -- -- value --

Email Id >> Single line text >> Auto populate by Opened on behalf of variable.

servicenow

Variable - Email Id

Application: Global

Type: Single Line Text

Order:

Variable set: Requester Information

Active: ☒

Mandatory: ☐

Read only: ☐

Hidden: ☐

Disable automatic slot fill based on user context: ☐

Question Annotation Type Specifications Default Value Auto-populate Permission Availability

Dependent question: opened on behalf of

Reference: User [sys_user]

Dot walk path: Click to select...

Copy Update Delete

Related Links

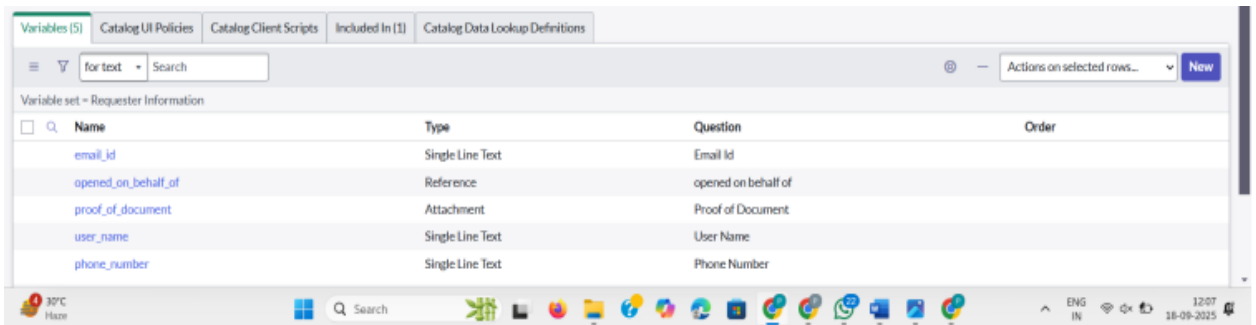
Run Point Scan

As mentioned in the above figures, all other variables are followed in the same process:

User name >>Single line text >> Auto populate by Opened on behalf of variable.

Phone Number >>Single line text >> Auto populate by Opened on behalf of variable.

Proof of Document >> Attachment



The screenshot shows the 'Variables' tab in ServiceNow, specifically for the 'Requester Information' variable set. It displays a table with columns: Name, Type, Question, and Order. The variables listed are email_id, opened_on_behalf_of, proof_of_document, user_name, and phone_number, each with a corresponding type and question.

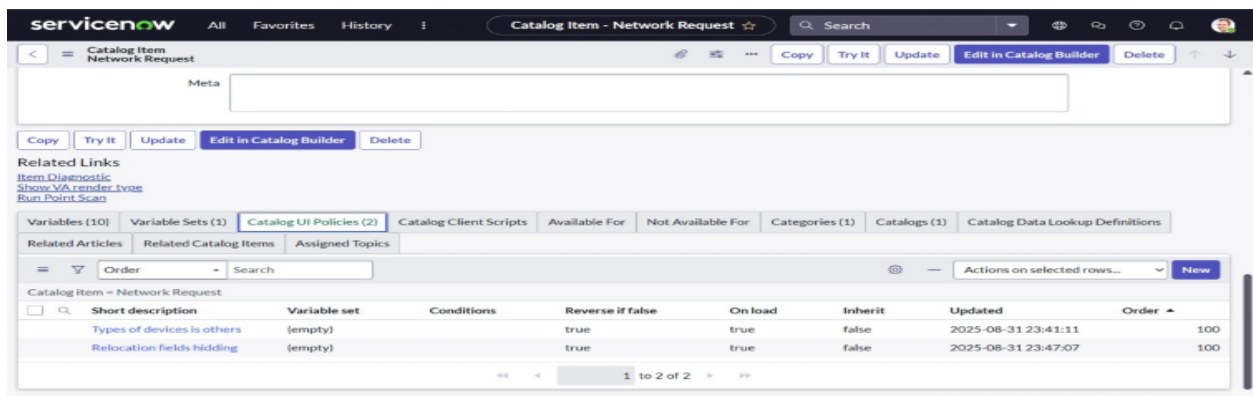
Name	Type	Question	Order
email_id	Single Line Text	Email Id	
opened_on_behalf_of	Reference	opened on behalf of	
proof_of_document	Attachment	Proof of Document	
user_name	Single Line Text	User Name	
phone_number	Single Line Text	Phone Number	

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**



The screenshot shows the 'Catalog Item - Network Request' page in ServiceNow. The 'Catalog UI Policies' tab is selected, displaying a table with columns: Short description, Variable set, Conditions, Reverse if false, On load, Inherit, Updated, and Order. The table contains two entries: 'Types of devices is others' and 'Relocation fields hiding'.

Short description	Variable set	Conditions	Reverse if false	On load	Inherit	Updated	Order
Types of devices is others	(empty)		true	true	false	2025-08-31 23:41:11	100
Relocation fields hiding	(empty)		true	true	false	2025-08-31 23:47:07	100

Click on save, after saving the form will get UI policy actions in the related list

Click on New button to configure new UI Policy action, and Select the variable which we want to display on condition

Make Visible True as per our requirement

Update the UI Policy and Test the same on Catalog form.

ServiceNow Catalog UI Policy configuration page. The form shows options for applying the policy on Catalog Item view, Catalog Tasks, and Requested Items. It also includes checkboxes for 'On load' and 'Reverse if false'. Below the form is a table titled 'Catalog UI Policy Actions' with columns: Name, Read only, Mandatory, Visible, and Order. The table contains one row with the name 'provide_device_details', 'Read only' set to 'Leave alone', 'Mandatory' set to 'Leave alone', 'Visible' set to 'True', and 'Order' set to '100'.

Creation of Table:

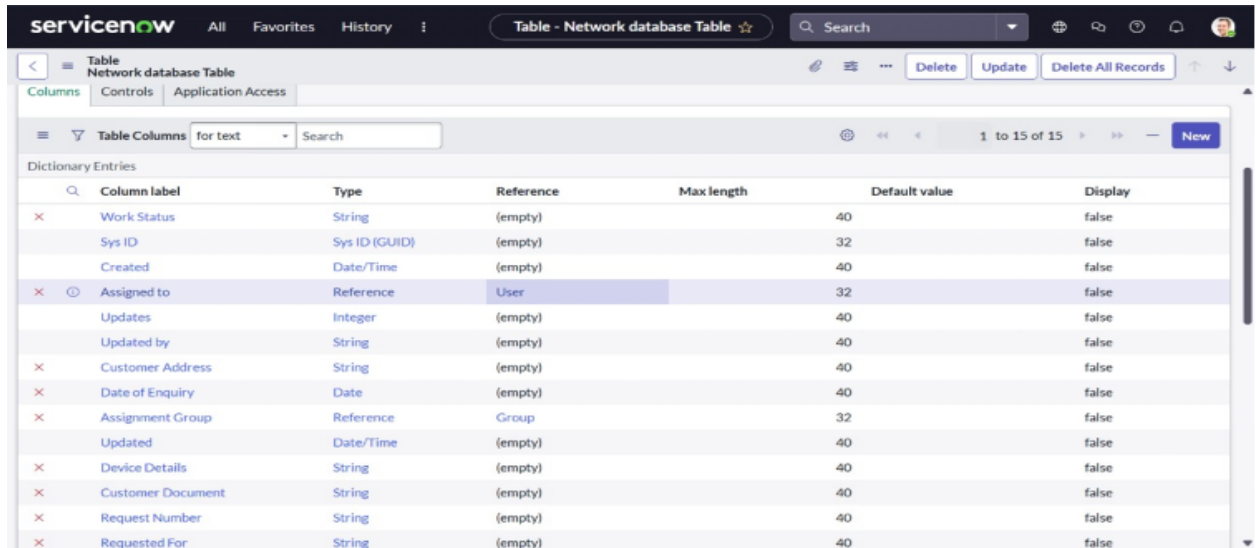
Create the Network database Table

- Navigate to **System Definition** → **Tables**.
- Click **New** to create a new table.
- Fill in **Table Information**:
 - **Name:** Network database
 - **Label:** Network database (backend name of the table).
 - **Auto-generate schema:** Leave it checked if you want ServiceNow to auto-generate schema fields.
- Click **Submit** to create the table.

ServiceNow Table creation page. The form shows the 'Table - Network database Table' configuration. It includes a description of a table and fields for 'Label' (Network database Table), 'Name' (u_network_database_table), 'Application' (Global), and 'Remote Table'.

Creation of Fields:

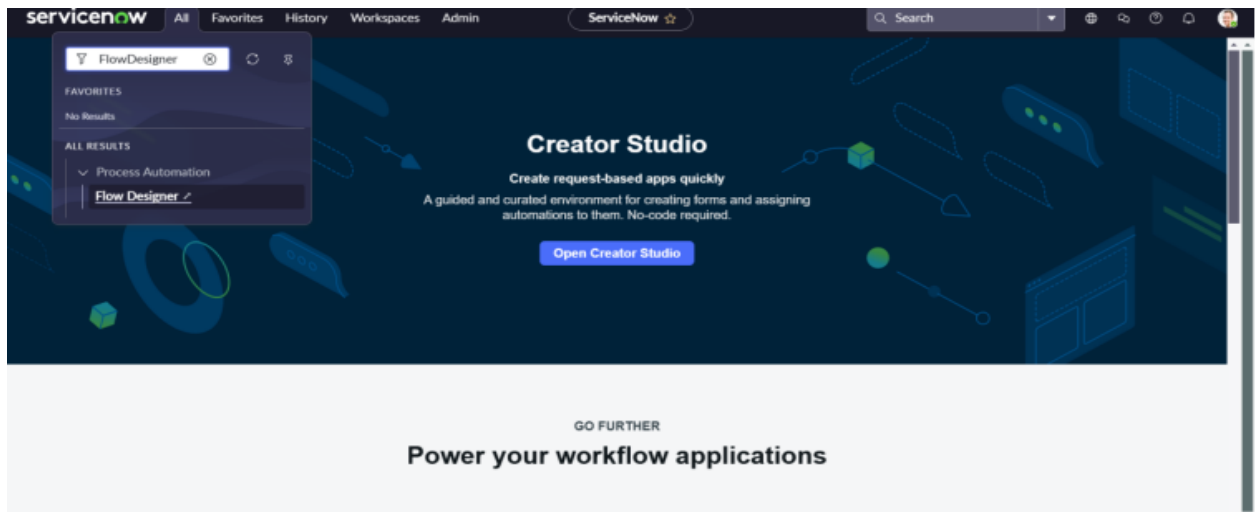
We had created the columns as mentioned in the below figure:



Column label	Type	Reference	Max length	Default value	Display
Work Status	String	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false
Created	Date/Time	(empty)	40		false
Assigned to	Reference	User	32		false
Updates	Integer	(empty)	40		false
Updated by	String	(empty)	40		false
Customer Address	String	(empty)	40		false
Date of Enquiry	Date	(empty)	40		false
Assignment Group	Reference	Group	32		false
Updated	Date/Time	(empty)	40		false
Device Details	String	(empty)	40		false
Customer Document	String	(empty)	40		false
Request Number	String	(empty)	40		false
Requested For	String	(empty)	40		false

Navigating to Flow Designer:

Go to Flow Designer by typing Flow Designer in the left-hand application navigator, or navigate through All > Flow Designer.



Creation Of Flow

After clicking flow designer, it redirects to a new page .

1. Click on New
2. Flow Name > Network Request and give the description
3. Click on Build flow

Workflow Studio

New Flow
Flow: None

Let's get the details for your flow

Flow name *

Application *

Description

[Show additional properties](#)

Cancel Build flow

2. Configuring Trigger

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

Workflow Studio

Network Request
Flow: Global

Network Request Active

View: Test

Test Debug Deactivate Activate Save

TRIGGER

Service Catalog

Trigger

Advanced Options

Delete Cancel Done

Data Collapse All

Flow Variables

Trigger - Service Catalog

Requested Item Record

Run Start Time UTC

Table Name

Run Start Date/Time

Configuring Action:

We are creating multiple actions to create a Flow.

Step 1: We created an Action :Get catalog Variables with several Action inputs.

Workflow Studio

Network Request
Flow: Global

Network Request Active

View: Test

Test Debug Deactivate Activate Save

1 Get Catalog Variables from Network Request

Action Properties

Action

Action Inputs

Submitted

Requested Item

Data Collapse All

Flow Variables

Trigger - Service Catalog

Requested Item Record

Run Start Time UTC

Table Name

Run Start Date/Time

Step 2: We created an Action :Create Record

The screenshot shows the 'Create Record' action configuration in Workflow Studio. The action is set to 'Create Record'. The table is 'Network database Table [u_netw...'. The fields are: 'Requested For' (mapped to 'Trigger - Servi... > ... > First na...'), 'Date of Enquiry' (mapped to 'Trigger - S... > Run Start Date...'), 'Device Details' (mapped to '1 - Get Catalo... > type_of_dev...'), 'Customer Document' (mapped to '1 - G... > please_provide_addr...'), and 'Assignment Group' (mapped to 'Network'). The 'Data' panel on the right shows the flow variables and the catalog variables for the 'Requested Item Record' and '1 - Get Catalog Variables'.

Action Properties

Action: Create Record

Action Inputs

* Table: Network database Table [u_netw... X

* Fields:

- Requested For X [Trigger - Servi... > ... > First na... X]
- Date of Enquiry X [Trigger - S... > Run Start Date... X]
- Device Details X [1 - Get Catalo... > type_of_dev... X]
- Customer Document X [1 - G... > please_provide_addr... X]
- Assignment Group X [Network X]

+ Add field value

Buttons: Delete, Cancel, Done

Data Collapse All

Flow Variables

Trigger - Service Catalog

- Requested Item Record Record
 - Run Start Time UTC Date/Tim
 - Table Name Table Nam
 - Run Start Date/Time Date/Tim
- 1 - Get Catalog Variables
 - proof_of_document Referen
 - user_name Strir
 - email_id Strir
 - opened_on_behalf_of Referen
 - phone_number Strir
 - is_this_a_new_network_connect... Choi
 - if_this_is_a_relocation_please_p... Strir
 - if_this_is_a_relocation_please_p... Strir

Step 3: We created an Action :Ask For Approval

The screenshot shows the 'Ask For Approval' action configuration in Workflow Studio. The action is set to 'Ask For Approval'. The record is '2 - ... > Network database Tab...'. The table is 'Network database Table [u_netw...'. The approval reason is empty. The approval field is 'Select a field'. The journal field is 'Select a field'. The rules are: 'Approve' (When: 'Anyone approves' [Abel Tuter X]) and 'Due Date' (Approve if pending by Actual date Drop date/time pill here). The 'Data' panel on the right shows the flow variables and the catalog variables for the 'Requested Item Record' and '1 - Get Catalog Variables'.

Action Properties

Action: Ask For Approval

Action Inputs

* Record: 2 - ... > Network database Tab... X

Table: Network database Table [u_netw... X

Approval Reason: []

Approval Field: Select a field X

Journal Field: Select a field X

* Rules

Approve When: Anyone approves [Abel Tuter X] OR AND

Due Date: Approve if pending by Actual date Drop date/time pill here

Buttons: Delete, Cancel, Done

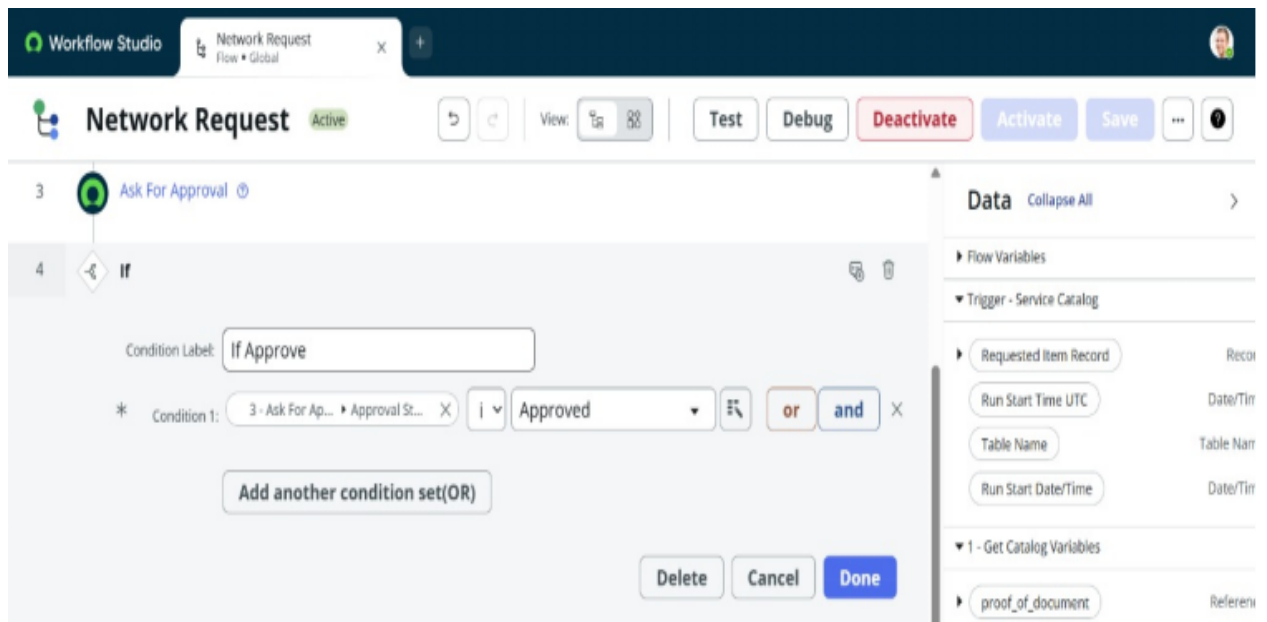
Data Collapse All

Flow Variables

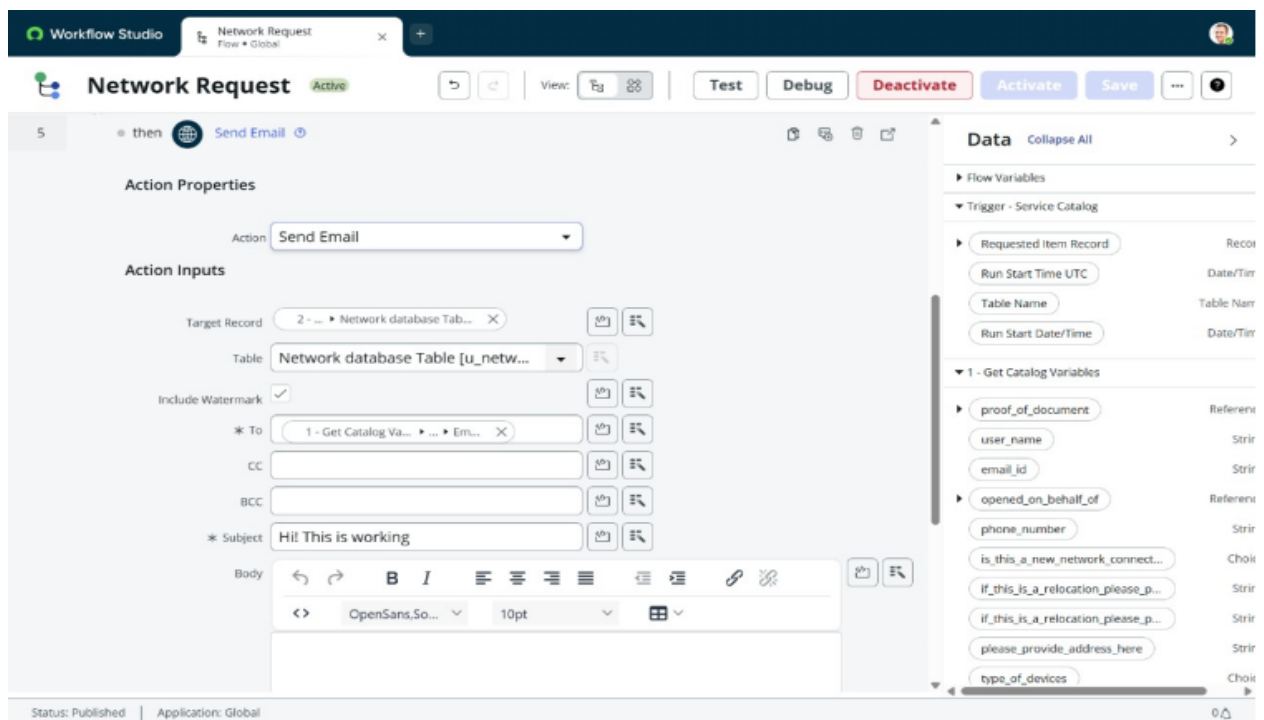
Trigger - Service Catalog

- Requested Item Record Record
 - Run Start Time UTC Date/Tim
 - Table Name Table Nam
 - Run Start Date/Time Date/Tim
- 1 - Get Catalog Variables
 - proof_of_document Referen
 - user_name Strir
 - email_id Strir
 - opened_on_behalf_of Referen
 - phone_number Strir
 - is_this_a_new_network_connect... Choi
 - if_this_is_a_relocation_please_p... Strir
 - if_this_is_a_relocation_please_p... Strir
 - please_provide_address_here Strir
 - type_of_devices Choi

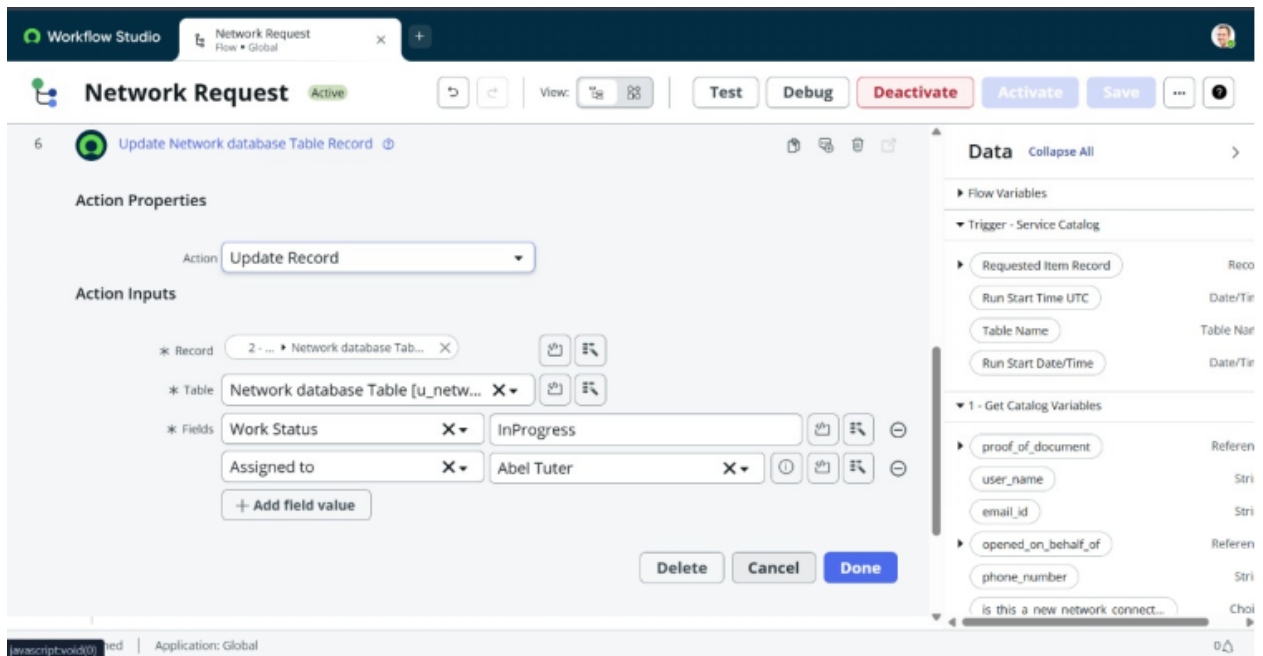
Step 4: We created a Flow Logic



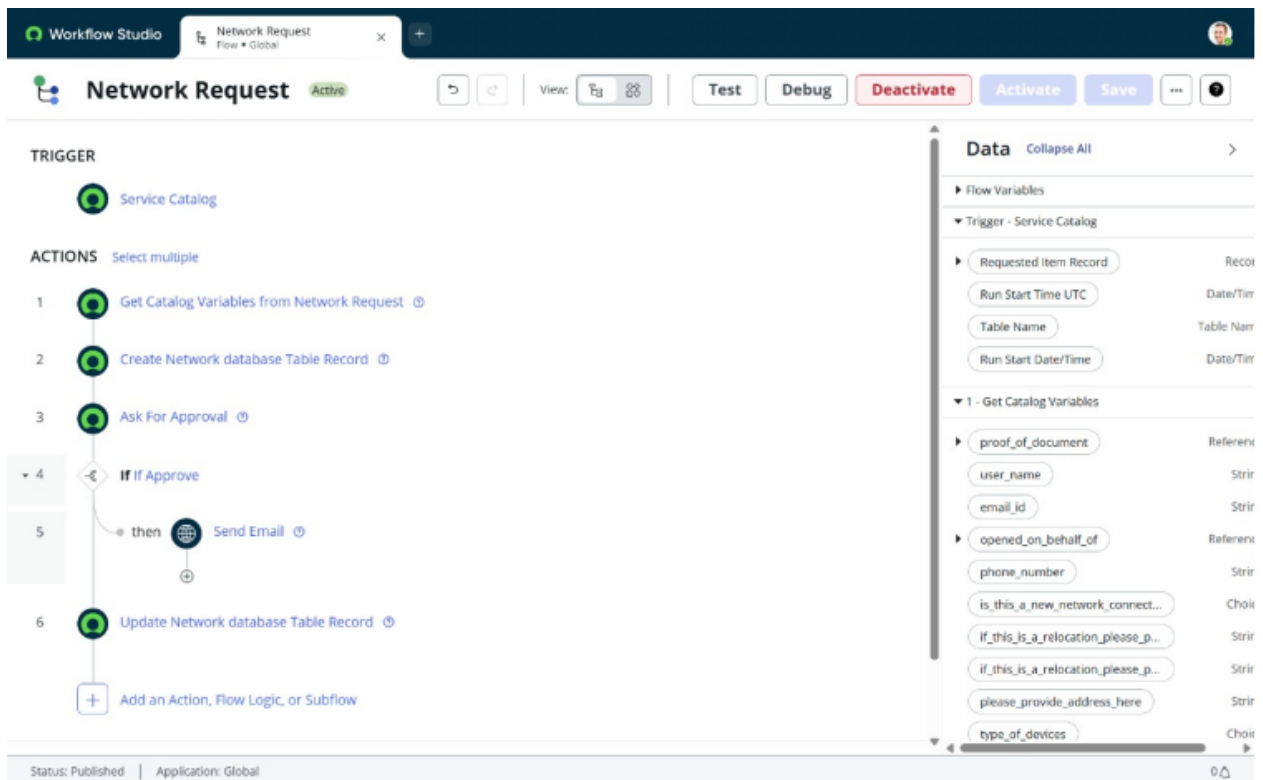
Step 5: We created an action: Send Email



Step 6: we created an action: Update Record



Flow chart:



Final Testing in End User portal & Instance

In the service catalog->Maintain Items->Network Request->Process Engine->Flow->Network Request

The screenshot shows the 'Catalog Item - Network Request' page in ServiceNow. The 'Process Engine' tab is selected. A message states: 'Select the appropriate process engine for the catalog Item. Only one engine can be selected.' Below this, there are three input fields: 'Flow' (containing 'Network Request'), 'Workflow', and 'Execution Plan'. Each field has a search icon and a help icon. At the bottom, there are buttons for 'Copy', 'Try It', 'Update', 'Edit in Catalog Builder', and 'Delete'.

Then click on Try it and choose order now :

The screenshot shows the 'Network Request' form in the end user portal. The 'Requester Information' section is expanded. It includes fields for 'User name', 'Email Id', 'Phone Number', and 'Opened on behalf of'. There are radio buttons for 'new' (selected) and 'Relocation'. Below these, there are two text boxes for relocation details. On the right side, there is a 'Shopping Cart' section with 'Quantity' set to 1 and 'Delivery time' set to 0 Days. There are buttons for 'Order Now' and 'Add to Cart'.

Then Request Number can generated after that Request item number can copied and test into flow

Order Status

Back to Catalog

Continue Shopping

Home

Thank you, your request has been submitted

Order Placed: 2025-09-18 01:51:09

Request Number: [REQ0010003](#) ☆

Estimated Delivery Date
of Complete Order: 2025-09-18

Description	Delivery Date	Stage	Price (ea.)	Quantity	Total
Network request Management	2025-09-18			1	
				Total	-

Back to Catalog

Continue Shopping

Home



< Request REQ0010003

DiscussFollowUpdateCancel RequestCopyDelete

Number REQ0010003

Opened 2025-09-18 01:51:09

Requested for System Administrator

Opened by System Administrator

Location

Approval Approved

Due date 2025-09-18 01:51:08

Request state Approved

Price \$0.00

Description

Short description

Special instructions

Update

Cancel Request

Copy

Delete

Related Links

[Show Workflow](#)
[Workflow Context](#)

Requested Items (1)

Approvers

Number

Search

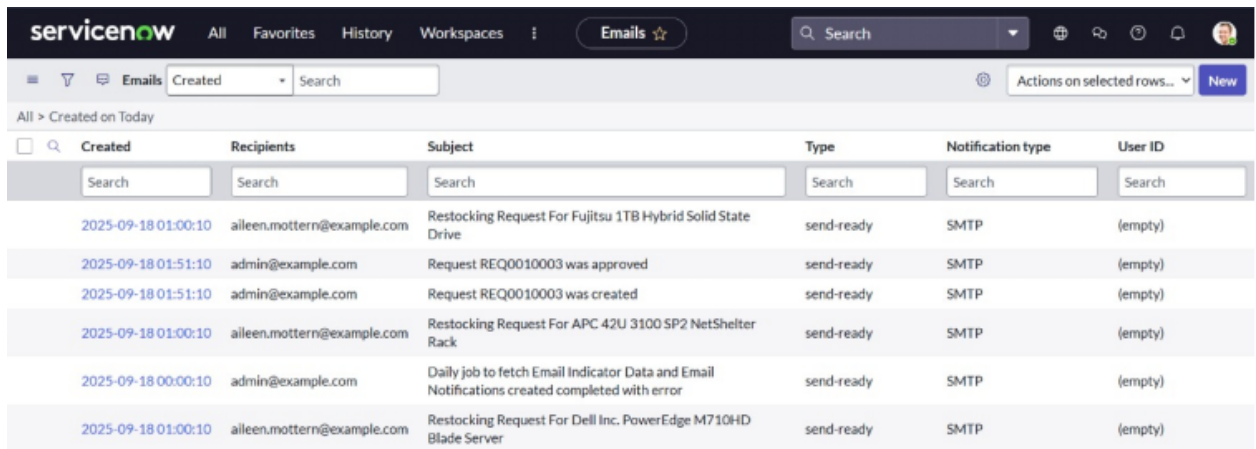
Actions on selected rows...

Request = REQ0010003

<input type="checkbox"/>	<div><div></div><div>Number</div></div>	Quantity	Catalog	Item	Due date	Price	Assigned to	Stage
<input type="checkbox"/>	RITM0010003	1	(empty)	Network Request	2025-09-18 01:51:08	\$0.00	(empty)	▶

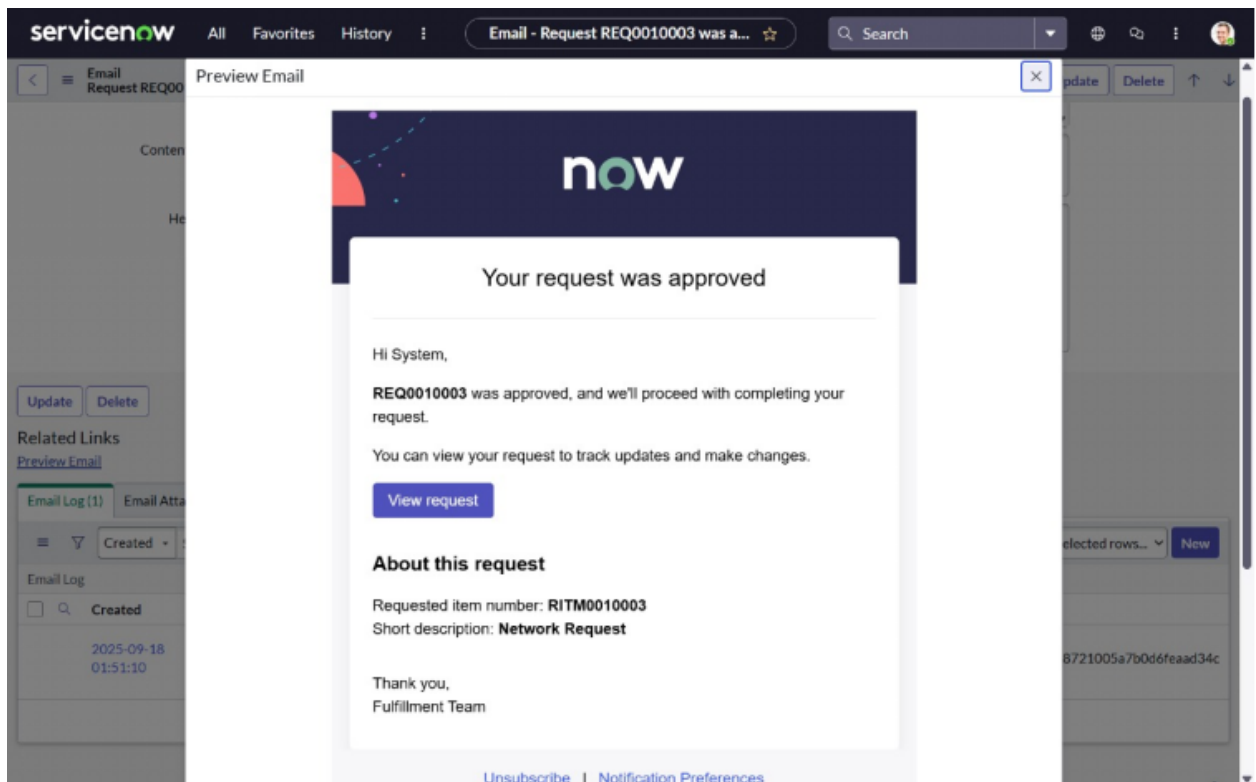
Go to System logs->Email

And we can see our request number is created and got acknowledged as request approved.



Created	Recipients	Subject	Type	Notification type	User ID
2025-09-18 01:00:10	aileen.mottern@example.com	Restocking Request For Fujitsu 1TB Hybrid Solid State Drive	send-ready	SMTP	(empty)
2025-09-18 01:51:10	admin@example.com	Request REQ0010003 was approved	send-ready	SMTP	(empty)
2025-09-18 01:51:10	admin@example.com	Request REQ0010003 was created	send-ready	SMTP	(empty)
2025-09-18 01:00:10	aileen.mottern@example.com	Restocking Request For APC 42U 3100 SP2 NetShelter Rack	send-ready	SMTP	(empty)
2025-09-18 00:00:10	admin@example.com	Daily job to fetch Email Indicator Data and Email Notifications created completed with error	send-ready	SMTP	(empty)
2025-09-18 01:00:10	aileen.mottern@example.com	Restocking Request For Dell Inc. PowerEdge M710HD Blade Server	send-ready	SMTP	(empty)

Now click on the Request approved. And choose preview Email. And we can see the request approval for our Order.



now

Your request was approved

Hi System,

REQ0010003 was approved, and we'll proceed with completing your request.

You can view your request to track updates and make changes.

[View request](#)

About this request

Requested item number: **RITM0010003**
Short description: **Network Request**

Thank you,
Fulfillment Team

[Unsubscribe](#) | [Notification Preferences](#)

And if we click on view request we can see the summary of the Request.

servicenow


Search

Q

My Tasks

My Requests

My Favorites



Tours

Technology services

Get support

Home > Request Summary

Submitted :2025-09-18 01:51:09
Request Number : REQ0010003
Estimated Delivery : 2025-09-18

Item	Delivery Date	Stage	Price (each)	Quantity	Total
Network Request	2025-09-18		---	1	---

Total: \$0.00

?

