

Automated Network Request Management in ServiceNow

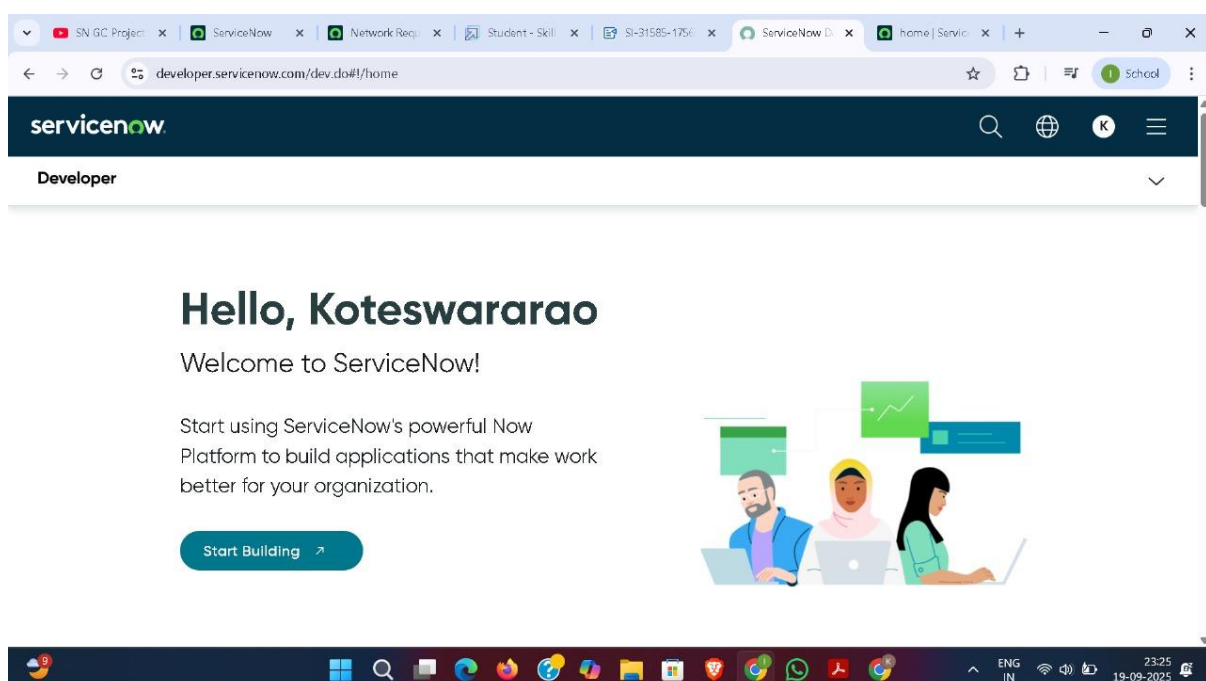
Project Description:

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:



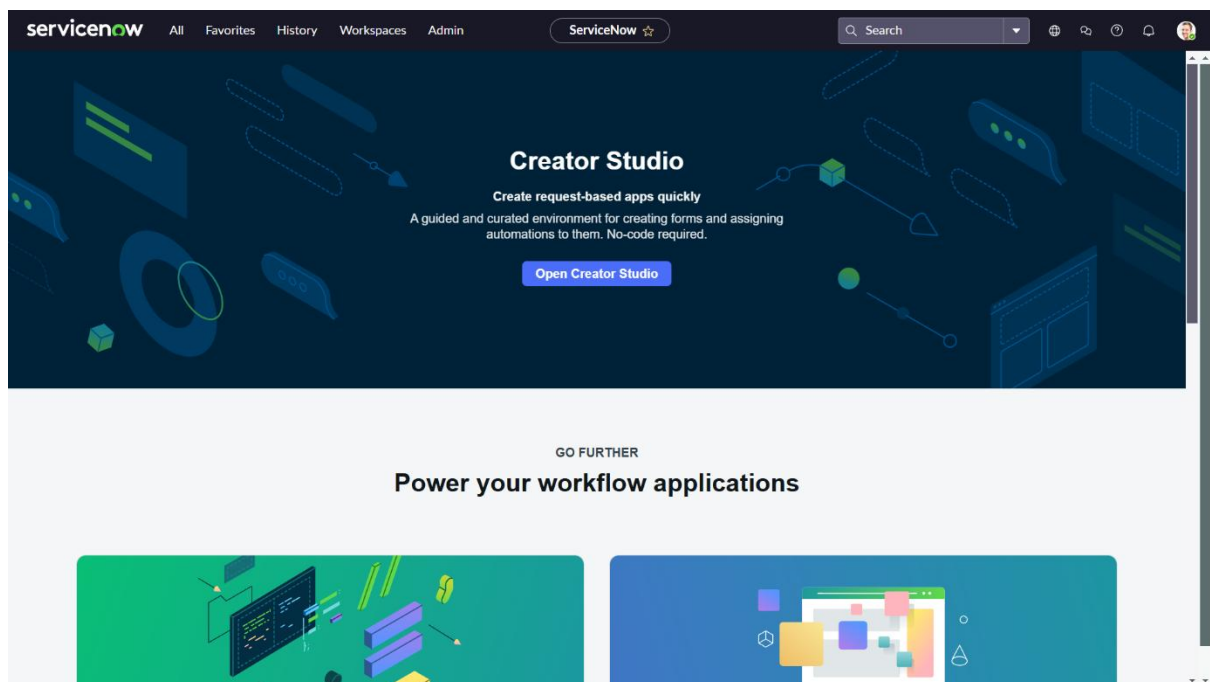
Start Building an Instance

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.

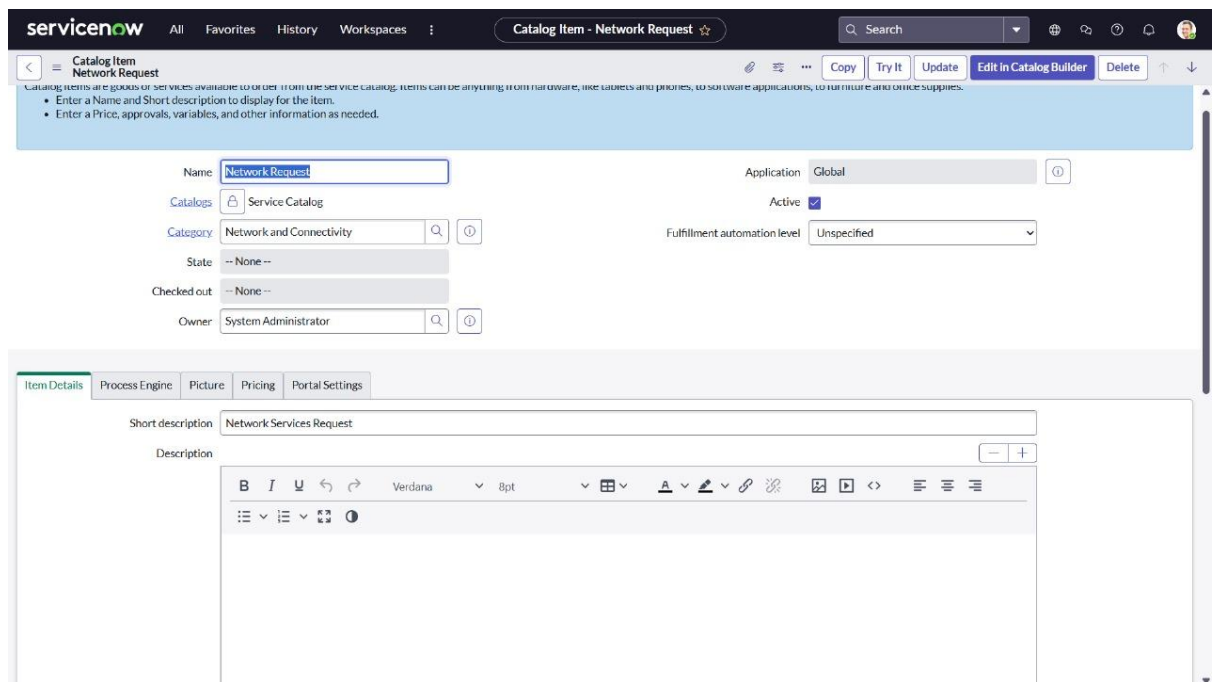
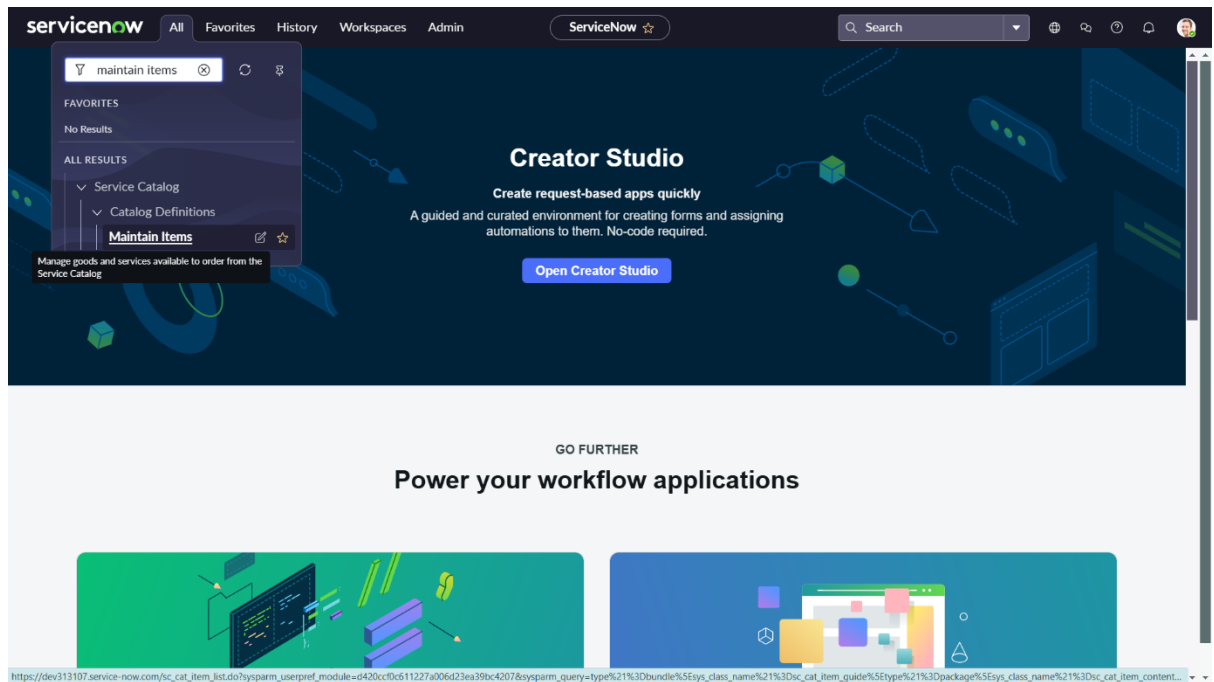
Wait while ServiceNow provisions your **personal developer instance** (this may take a minute or two).



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.

[Item Diagnostic](#)
[Show VA render type](#)
[Run Point Scan](#)

[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

Catalog Item = Network Request

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
Single Line Text	If this is a relocation, Please provide a	320
Container Start	Location & Devices Type	400
Single Line Text	Please provide address here	410
Select Box	Type of devices	420
Single Line Text	Provide device details	430
Container Start	Additional Information	500
Single Line Text	if any, Please write here	510

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

Question Choices Order ▾ Search

Question = Is this a new network connection or a reusable

Text	Value	Order ▲	Inactive
New	N	100	false
Relocation	R	200	false
None	No	300	false
+ Insert a new row...			

1 to 3 of 3

Question Choices Order ▾ Search

Question = Types of devices

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

1 to 3 of 3

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

The screenshot shows the 'Variable Set' configuration page for 'Requester Information'. The title is 'Requester Information'. The internal name is 'requester_information'. The order is '100'. The type is 'Single Row'. The layout is '2 Columns Wide, one side, then the other'. The application is 'Global'. The display title is empty. The description is empty. There are 'Update' and 'Delete' buttons at the bottom.

Variable Types In Variable Set:

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

The screenshot shows the 'Variable Set' configuration page for 'opened on behalf of'. The application is 'Global'. The type is 'Reference'. The order is empty. The variable set is 'Requester Information'. The active checkbox is checked. The mandatory checkbox is unchecked. The read only checkbox is unchecked. The hidden checkbox is unchecked. The 'Disable automatic slot fill based on user context' checkbox is unchecked. The 'Type Specifications' tab is selected. The 'Variable Width' is 'System Default Width (50) %'. The 'Reference' is 'User [sys_user]'. The 'Use reference qualifier' is 'Simple'. The 'Reference qualifier condition' is empty. There are 'Add Filter Condition' and 'Add OR Clause' buttons. There are 'Copy', 'Update', and 'Delete' buttons at the bottom.

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

The screenshot shows the 'Variable Set' configuration page for 'Email Id'. The application is 'Global'. The type is 'Single Line Text'. The order is empty. The variable set is 'Requester Information'. The active checkbox is checked. The mandatory checkbox is unchecked. The read only checkbox is unchecked. The hidden checkbox is unchecked. The 'Disable automatic slot fill based on user context' checkbox is unchecked. The 'Auto-populate' tab is selected. The 'Dependent question' is 'opened on behalf of'. The 'Reference' is 'User [sys_user]'. The 'Dot walk path' is 'Click to select...'. There are 'Copy', 'Update', and 'Delete' buttons at the bottom. There are 'Related Links' and 'Run Print Scan' links at the bottom.

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

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**

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.

The screenshot shows the ServiceNow interface for configuring a Catalog UI Policy. The breadcrumb trail is "Catalog UI Policy > Types of devices is others". The policy is named "Types of devices is others". It is configured to "Apply the catalog UI policy actions when the form is loaded or when the user changes values on the form". The "On load" checkbox is checked. The "Reverse the effects of the catalog UI policy actions when the Conditions evaluate to false" checkbox is also checked. The "Reverse if false" checkbox is checked. The "Update" and "Delete" buttons are visible. Below the policy configuration, there is a "Related Links" section with a link to "Run Point Scan". At the bottom, there 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 "Leave alone", Mandatory "Leave alone", Visible "True", and Order "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.

The screenshot shows the ServiceNow interface for creating a new Table. The breadcrumb trail is "Table > Network database Table". The table is named "Network database Table". The "Label" is "Network database Table". The "Application" is "Global". The "Name" is "u_network_database_table". The "Remote Table" checkbox is unchecked. The "Delete", "Update", and "Delete All Records" buttons are visible. Below the form, there is a description: "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](#)".

Creation of Fields:

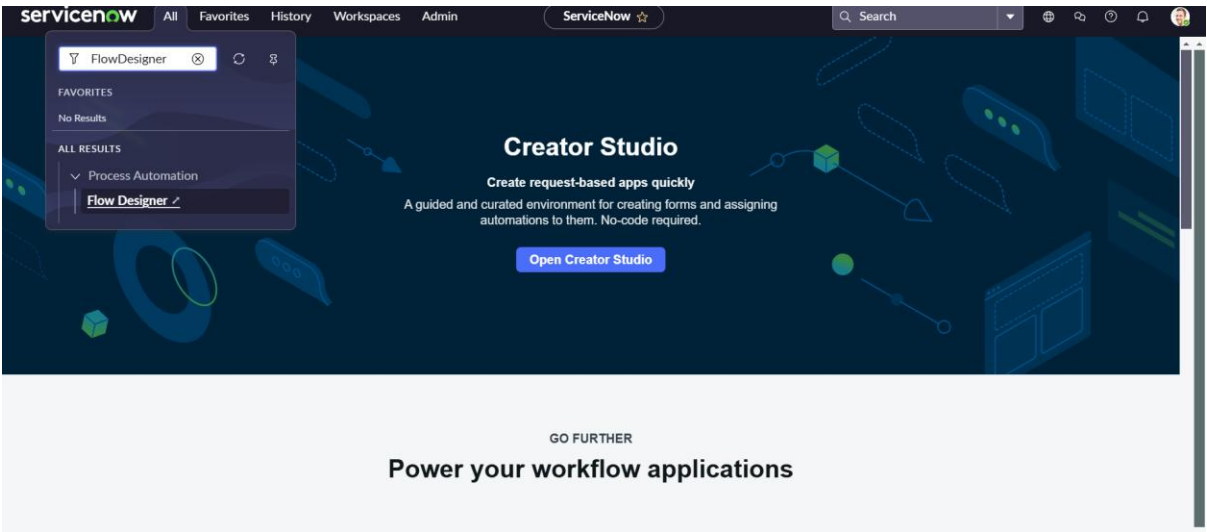
We had created the columns as mentioned in the below figure:

The screenshot shows the 'Table Columns' configuration page for the 'Network database Table'. The table lists 15 columns with their respective types, references, and default values. The 'Assigned to' column is highlighted.

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.



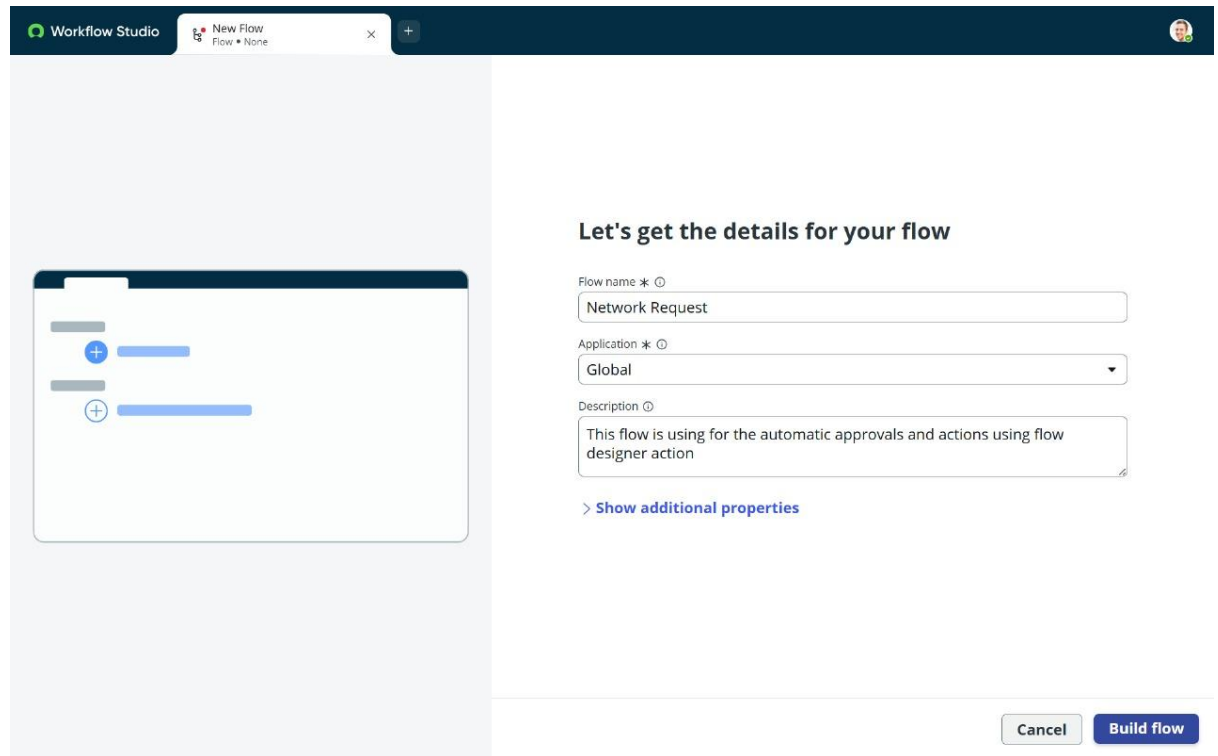
Creation Of Flow

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



The screenshot shows the 'New Flow' configuration page in Workflow Studio. The left pane displays a visual flow diagram with two steps, each represented by a blue bar with a plus icon. The right pane, titled 'Let's get the details for your flow', contains the following fields:

- Flow name ***: A text input field containing 'Network Request'.
- Application ***: A dropdown menu set to 'Global'.
- Description**: A text area containing 'This flow is using for the automatic approvals and actions using flow designer action'.

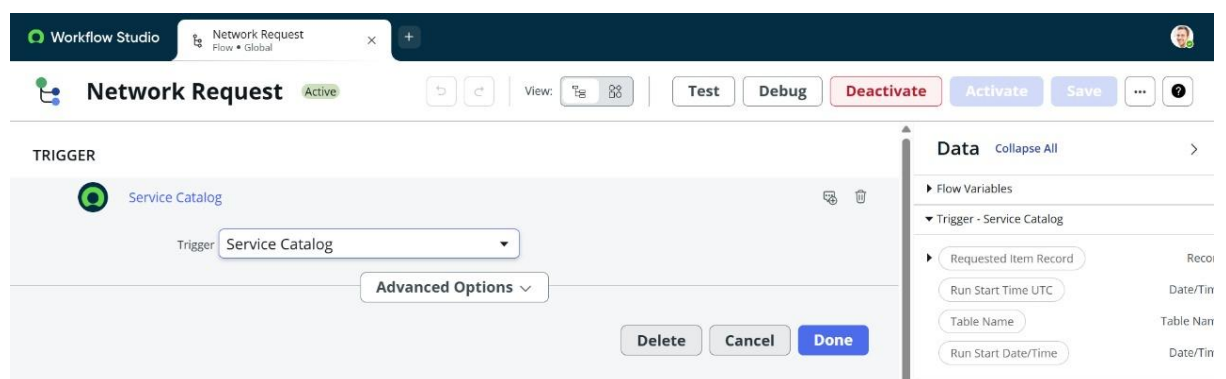
Below these fields is a link '> Show additional properties'. At the bottom right of the right pane are two buttons: 'Cancel' and 'Build flow'.

2.Configuring Trigger

1.Click on (+) Icon to Configure the Trigger

2.Select Trigger as Application >> Service catalog

3.Click on Done.



The screenshot shows the 'Network Request' configuration page in Workflow Studio. The top bar indicates the flow is 'Active'. The main configuration area is titled 'TRIGGER' and shows the 'Service Catalog' trigger selected. Below the trigger selection is an 'Advanced Options' dropdown. At the bottom right of the configuration area are three buttons: 'Delete', 'Cancel', and 'Done'.

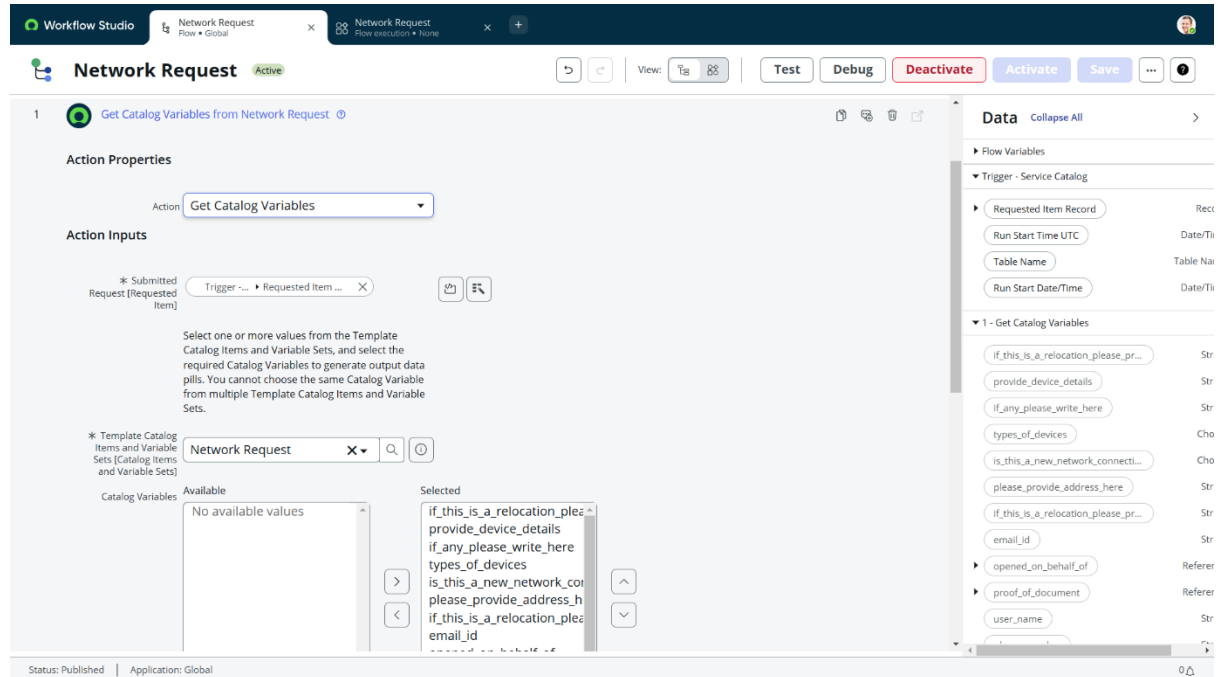
On the right side, there is a 'Data' panel with a 'Collapse All' button. It shows the following variables:

Flow Variables	
Trigger - Service Catalog	
Requested Item Record	Recoi
Run Start Time UTC	Date/Tin
Table Name	Table Nan
Run Start Date/Time	Date/Tin

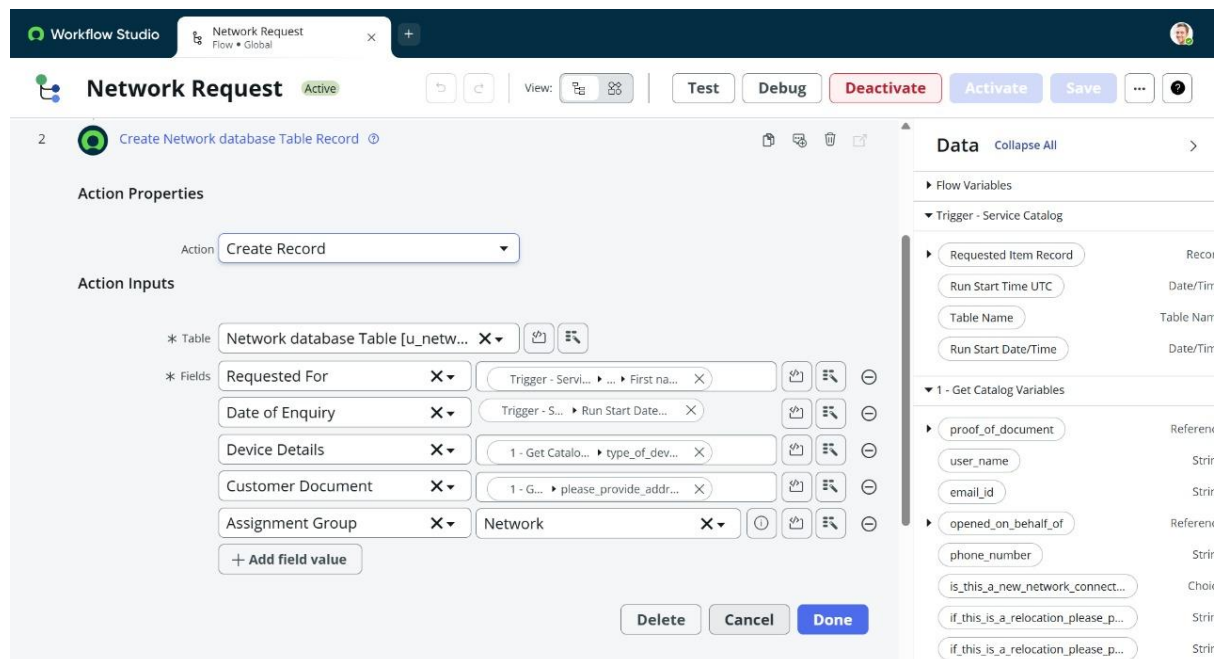
Configuring Action:

We are creating multiple actions to create a Flow.

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



Step 2: We created an Action :Create Record



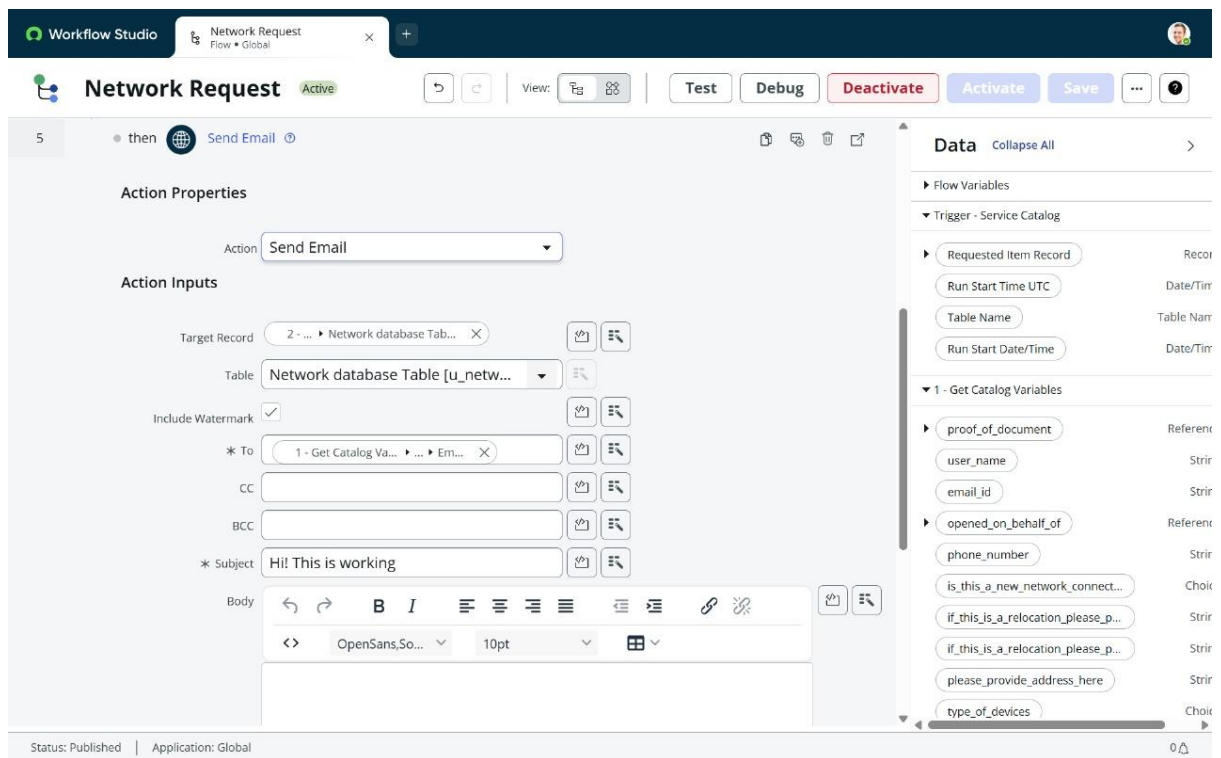
Step 3: We created an Action :Ask For Approval

The screenshot shows the 'Ask For Approval' action configuration in Workflow Studio. The action is set to 'Ask For Approval'. The 'Action Inputs' section includes a 'Record' field set to '2 - ... > Network database Tab...', a 'Table' field set to 'Network database Table [u_netw...', an 'Approval Reason' field, an 'Approval Field' set to 'Select a field', and a 'Journal Field' set to 'Select a field'. The 'Rules' section shows a rule set with 'Approve' as the action, 'Anyone approves' as the condition, and 'Abel Tutor X' as the user. The 'Due Date' is set to 'Approve' if pending by 'Actual date'. The 'Data' panel on the right shows a list of variables including 'Requested Item Record', 'Run Start Time UTC', 'Table Name', 'Run Start Date/Time', 'proof_of_document', 'user_name', 'email_id', 'opened_on_behalf_of', 'phone_number', 'is_this_a_new_network_connect...', 'if_this_is_a_relocation_please_p...', 'if_this_is_a_relocation_please_p...', 'please_provide_address_here', and 'type_of_devices'.

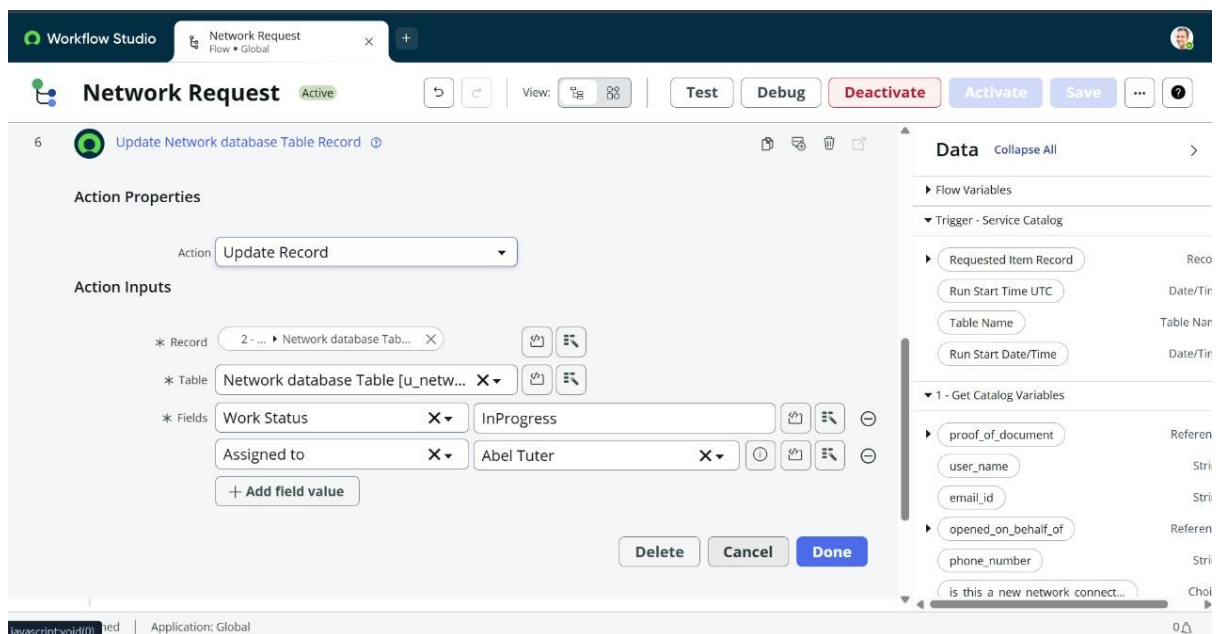
Step 4: We created a Flow Logic

The screenshot shows the 'If' condition configuration in Workflow Studio. The condition is set to 'If'. The 'Condition Label' is 'If Approve'. The 'Condition 1' is set to '3 - Ask For Ap... > Approval St...' with a condition of 'Approved'. The 'Data' panel on the right shows a list of variables including 'Requested Item Record', 'Run Start Time UTC', 'Table Name', 'Run Start Date/Time', 'proof_of_document', and 'user_name'.

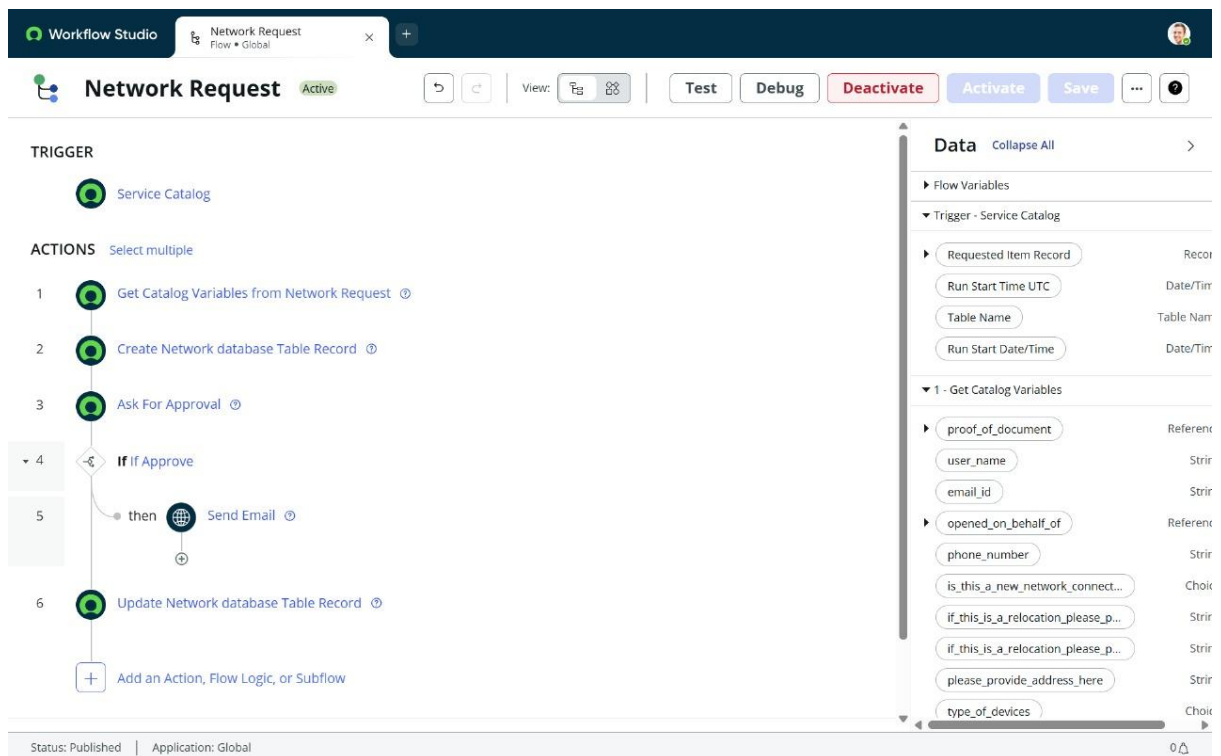
Step 5: We created an action: Send Email



Step 6: we created an action: Update Record

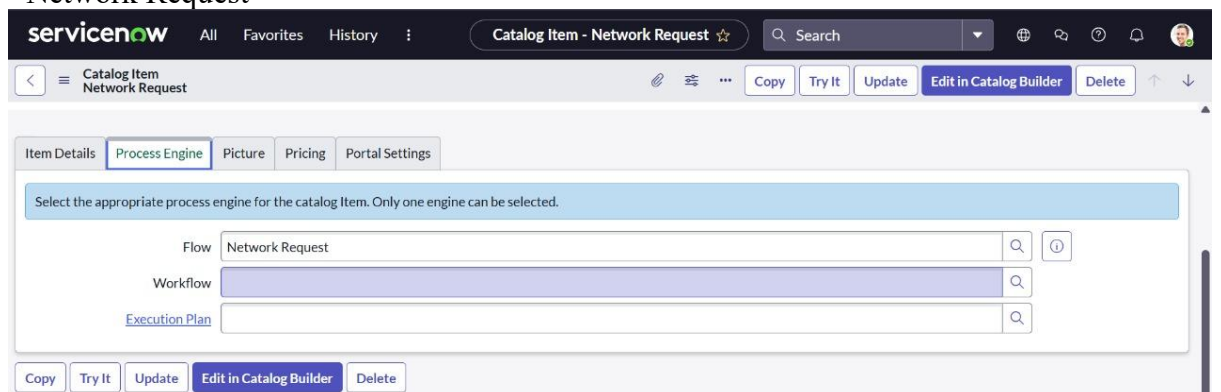


Flow chart:



Final Testing in End User portal & Instance

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



Then click on Try it and choose order now :

servicenow

AllFavoritesHistoryAdmin

Network Request

Search

Search catalog

Service Catalog > Network > Network Request

Search catalog

Network request Management

Requester Information

Proof of Document
Click to add...

Order Now

User name

Email Id

Is this a new network connection or a reusable

☒ new

☐ Relocation

If this is a relocation, please provide

If this is a relocation, Please provide a

Opened on behalf of

Phone Number

Order this Item

Quantity1

Delivery time0 Days

Order Now

Add to Cart

Shopping Cart

Empty

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

servicenow

AllFavoritesHistory

Order Status: REQ0010003

Search

Back to CatalogContinue ShoppingHome

Order Status

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 CatalogContinue ShoppingHome

servicenow All Favorites History : Request - REQ0010003 Search

Request REQ0010003 Discuss Follow Update Cancel Request Copy Delete

Number: REQ0010003
 Requested for: System Administrator
 Location:
 Due date: 2025-09-18 01:51:08
 Price: \$0.00
 Description:
 Short description:
 Special instructions:
 Opened: 2025-09-18 01:51:09
 Opened by: System Administrator
 Approval: Approved
 Request state: Approved

Update Cancel Request Copy Delete

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

Requested Items (1) **Approvers**

Request = REQ0010003

Number	Quantity	Catalog	Item	Due date	Price	Assigned to	Stage
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.

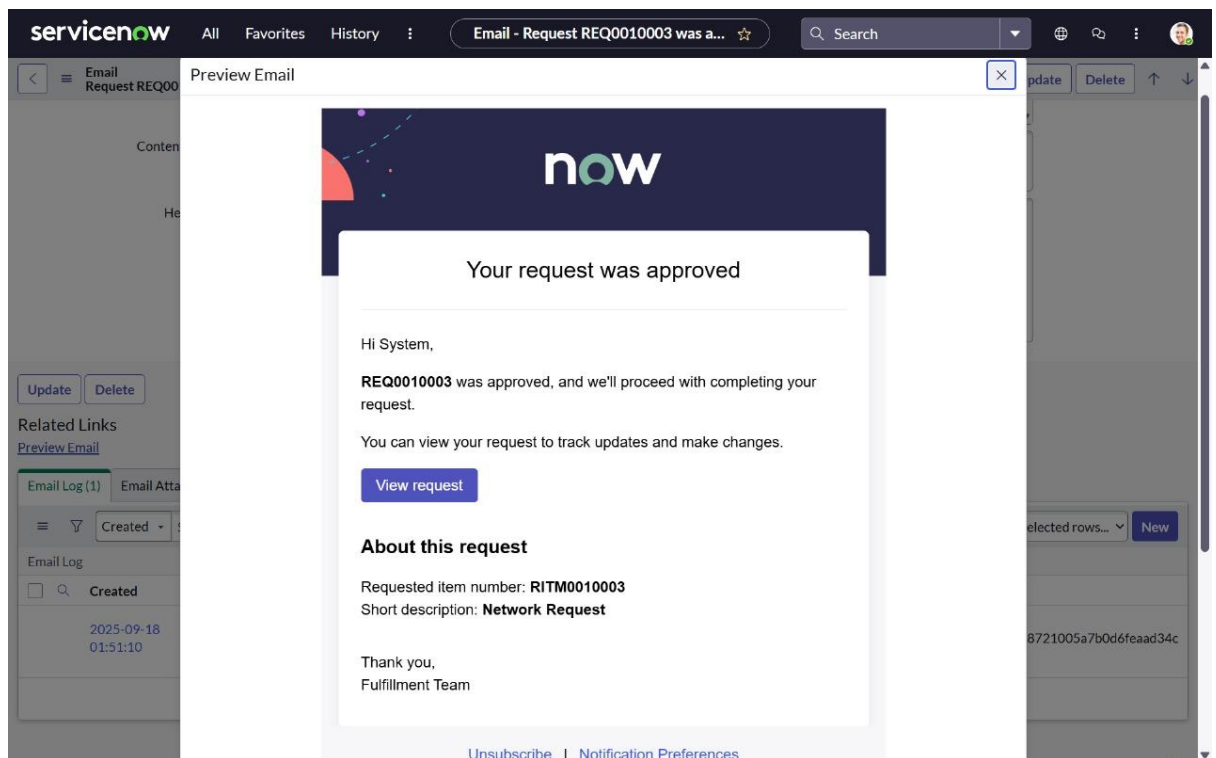
servicenow All Favorites History Workspaces : Emails Search

Emails Created Search Actions on selected rows... New

All > Created on Today

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.



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

