

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:

The screenshot shows the ServiceNow Developer landing page. At the top, there is a navigation bar with links for MyNow, Products, Industries, Learning, Support, Partners, and Company. Below the navigation bar, there is a secondary navigation bar with links for Home, Learn, Reference, Guides, and Connect. On the right side of the header, there are buttons for 'Manage my instance' and 'Start building'. The main content area features a welcome message: 'Hello, Sai Durga Rao' followed by 'Welcome to ServiceNow!'. Below this, there is a sub-headline: 'Start using ServiceNow's powerful Now Platform to build applications that make work better for your organization.' At the bottom of the main content area, there is a 'Start Building' button. To the right of the text, there is an illustration of three people working on laptops. At the very bottom of the page, there is a footer bar with the text 'Content available for: Zurich Yokohama Xanadu'.

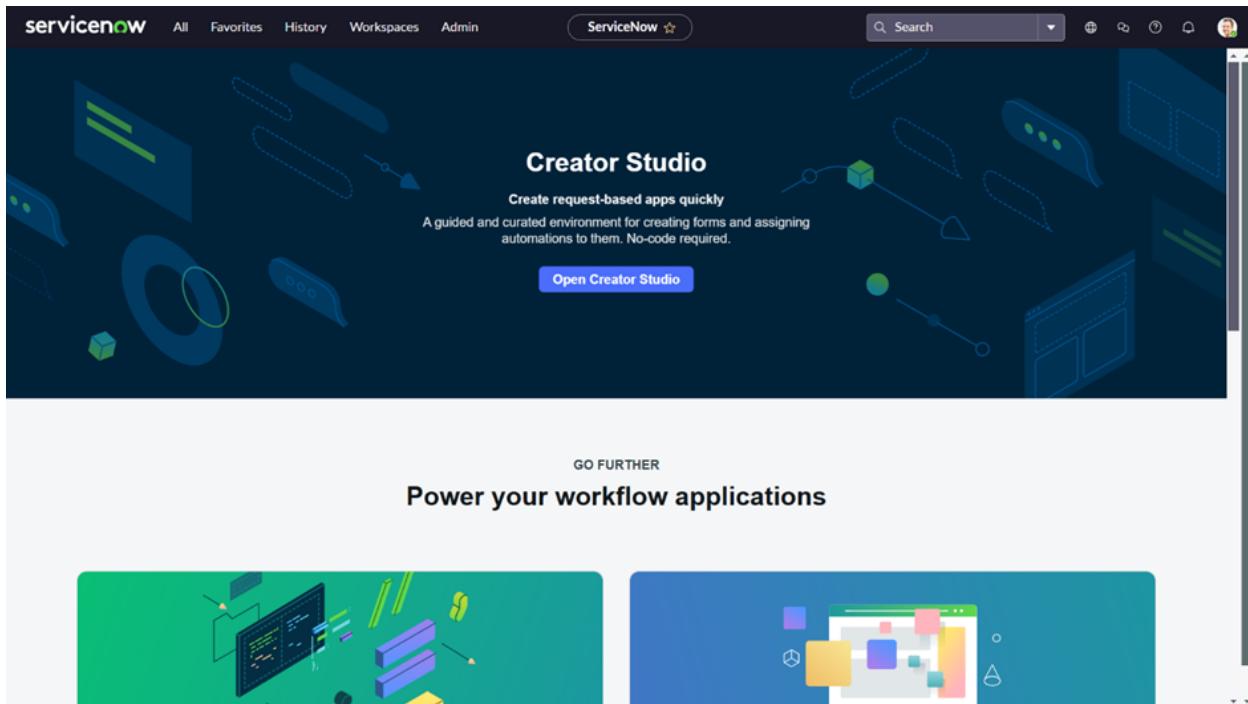
On the welcome page, click **Start Building**.

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

to you).

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

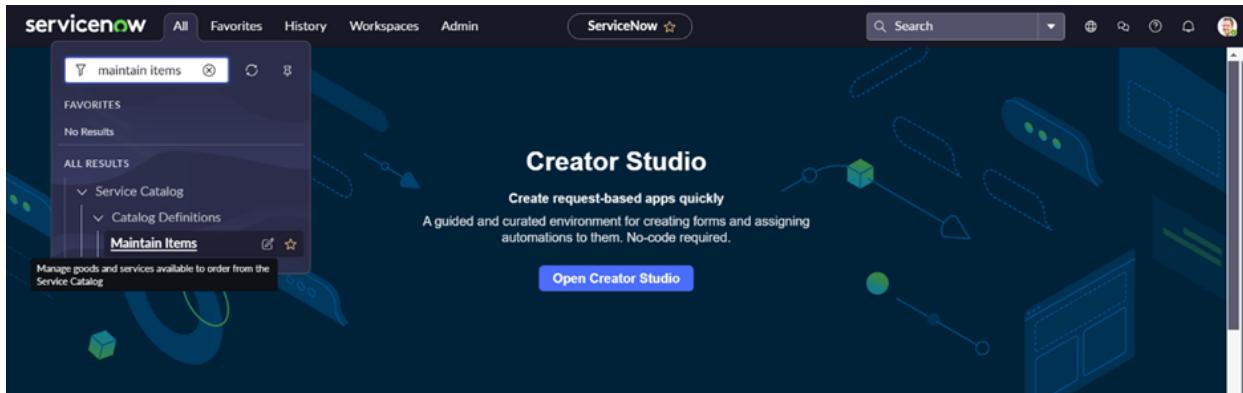
Wait while ServiceNow provisions your **personal developer instance** (this may take a minute or two).



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.



GO FURTHER Power your workflow applications

This screenshot shows the 'Catalog Item - Network Request' creation page. The URL in the address bar is: https://dev313107.service-now.com/hc_cat_item_list.do?sysparm_userpref_module=d420ccfd61127a006d23ea30fc4207&sysparm_query=type%21%3Dbundle%5Esys_class_name%21%3Dsc_cat_item_guide%5Etype%21%3Dpackage%5Esys_class_name%21%3Dsc_cat_item_content

The page has a header with 'Catalog Item - Network Request' and various action buttons like 'Copy', 'Try It', 'Update', 'Edit in Catalog Builder', and 'Delete'. The main form fields include:

- Name:** Network Request
- Catalogs:** Service Catalog
- Category:** Network and Connectivity
- State:** None
- Checked out:** None
- Owner:** System Administrator
- Application:** Global
- Active:** checked
- Fulfillment automation level:** Unspecified

Below the form is a tabbed section with 'Item Details' selected, followed by 'Process Engine', 'Picture', 'Pricing', and 'Portal Settings'. The 'Item Details' tab contains a 'Short description' field with 'Network Services Request' and a rich text editor for 'Description'.

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.

The screenshot shows the 'Catalog Item Network Request' configuration page. At the top, there are buttons for Copy, Try It, Update, Edit in Catalog Builder, and Delete. Below the header, there are tabs for Variables (10), Variable Sets (1), Catalog UI Policies (2), Catalog Client Scripts, Available For, Not Available For, Categories (1), Catalogs (1), and Catalog Data Lookup Definitions. There are also tabs for Related Articles, Related Catalog Items, and Assigned Topics.

The main area displays a table of variables:

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

The screenshot shows two catalog item configuration pages for 'Question Choices'.

The first page lists choices for the 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

The second page lists choices for the question 'Types of devices':

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

Buttons: 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

Properties:

- Active:
- Mandatory:
- Read only:
- Hidden:
- Disable automatic slot fill based on user context:

Tabbed View: Question, Annotation, Type Specifications, Default Value, Auto-populate, Permission, Availability

Type Specifications Tab:

- 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.

Variable - Email Id

- Application: Global
- Type: Single Line Text
- Order:
- Variable set: Requester Information

Properties:

- Active:
- Mandatory:
- Read only:
- Hidden:
- Disable automatic slot fill based on user context:

Tabbed View: Question, Annotation, Type Specifications, Default Value, Auto-populate, Permission, Availability

Auto-populate Tab:

- Dependent question: opened on behalf of
- Reference: User [sys_user]
- Dot walk path: Click to select...

Buttons: Copy, Update, Delete

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

Variables (5)				
	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.

Catalog UI Policy - Types of devices i...

Applies on a Catalog Item view

Applies on Catalog Tasks

Applies on Requested Items

On load

Reverse if false

[Update](#) [Delete](#)

Related Links
[Run Point Scan](#)

Catalog UI Policy Actions

Name	Read only	Mandatory	Visible	Order
provide_device_details	Leave alone	Leave alone	True	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.

Table - Network database Table

Table

Network database Table

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: Network database Table

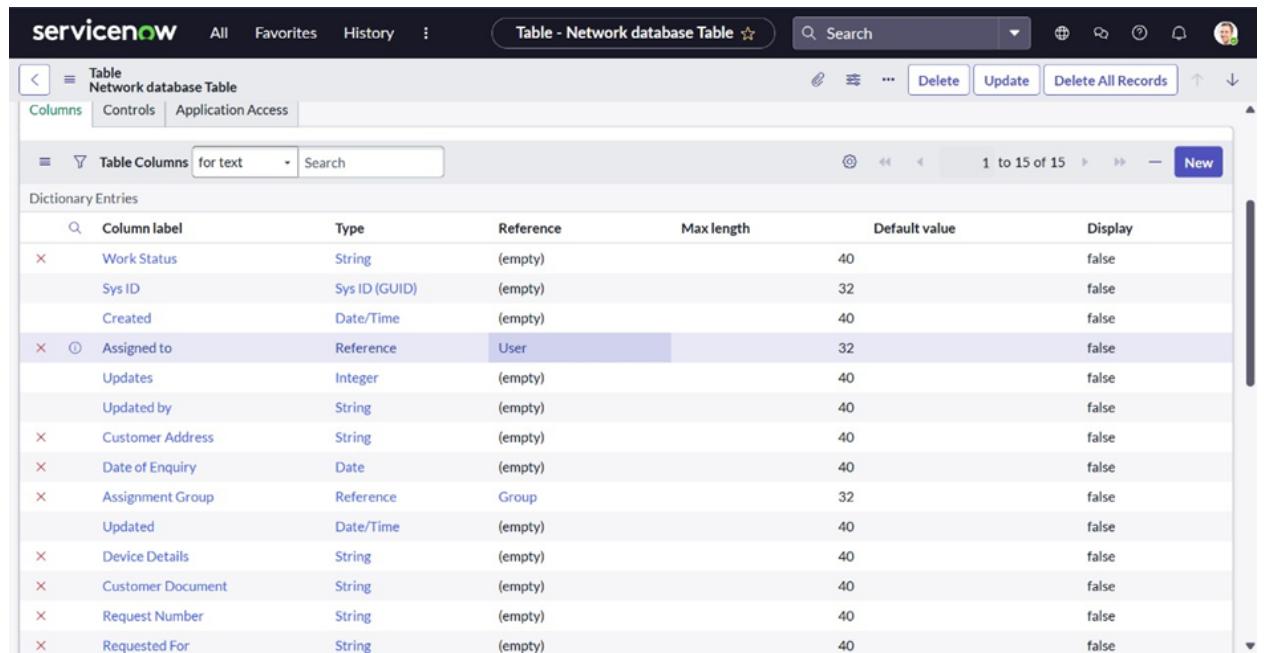
* Name: u_network_database_table

Application: Global

Remote Table:

Creation of Fields:

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

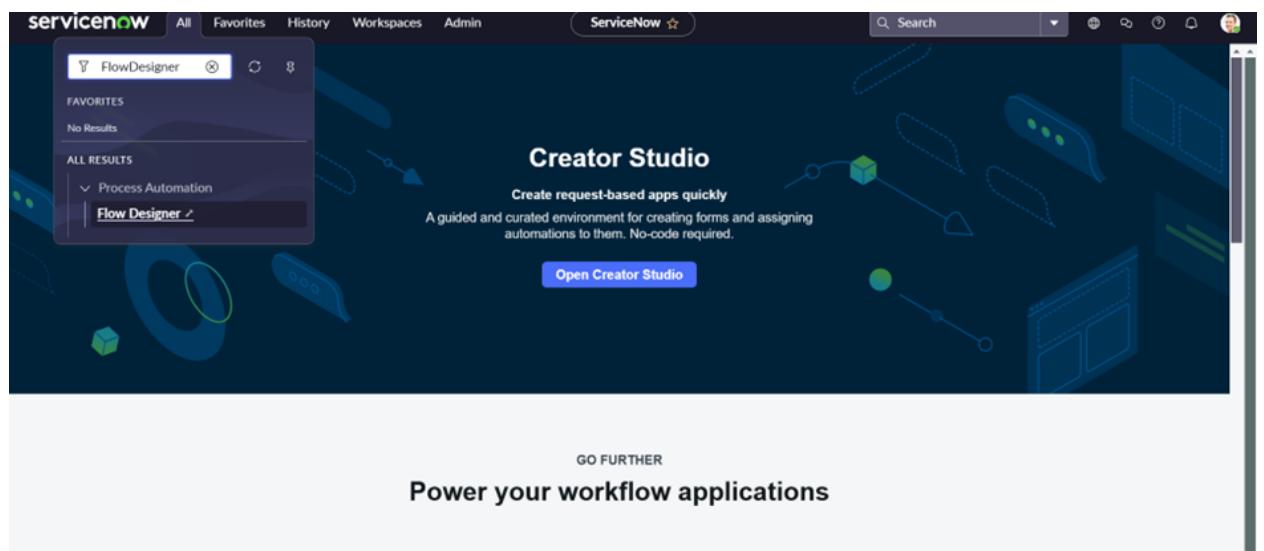


The screenshot shows the ServiceNow interface for managing a table named "Network database Table". The top navigation bar includes "All", "Favorites", "History", "Table - Network database Table", "Search", and user icons. Below the header, there are tabs for "Columns", "Controls", and "Application Access". The main area displays a table of columns with the following data:

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

Navigating to Flow Designer:

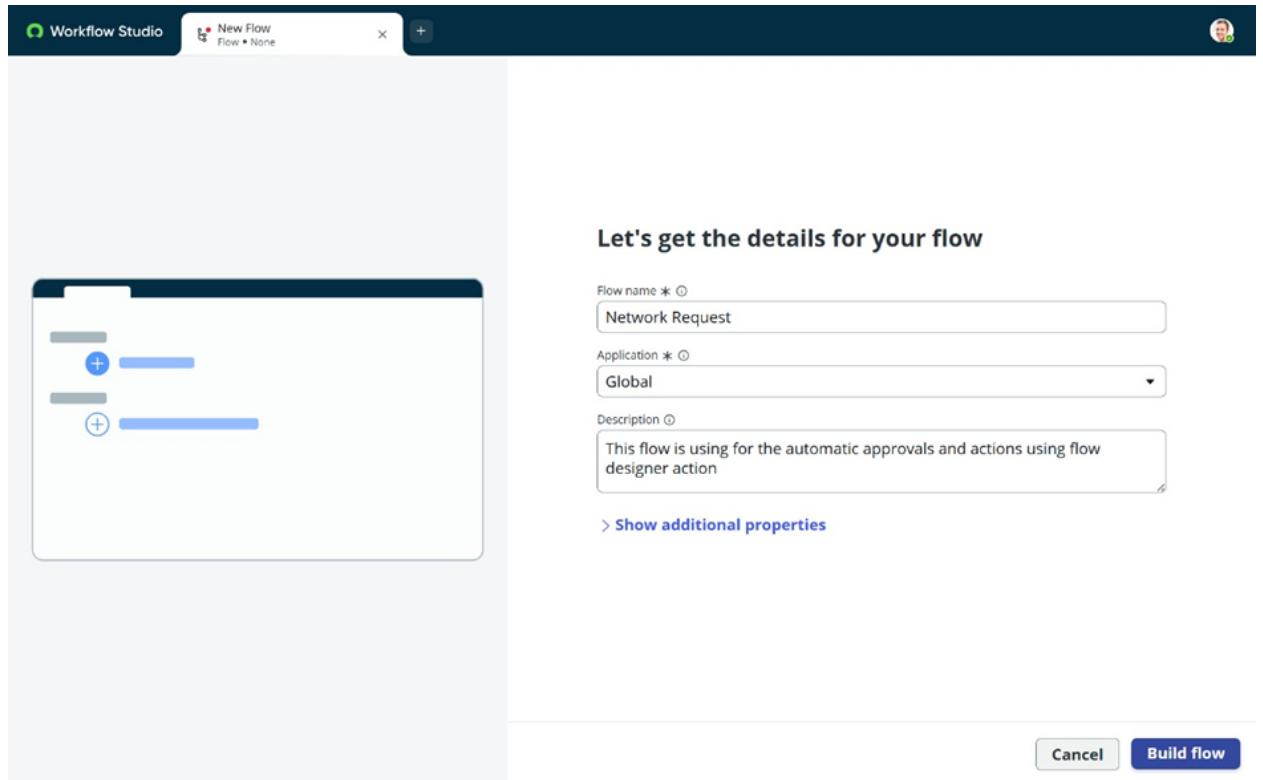
Go to Flow Designer by typing Flow Designer in the left-hand application navigator, or navigate through All > Flow Designer.



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



2. Configuring Trigger

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

Configuring Action:

We are creating multiple actions to create a Flow.

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

Action Properties

Action: Get Catalog Variables

Action Inputs

* Submitted Request [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: if_this_is_a_relocation_please_p... provide_device_details if_any_please_write_here types_of_devices is_this_a_new_network_connect... please_provide_address_h if_this_is_a_relocation_plea email_id

Data

- Trigger - Service Catalog
 - Requested Item Record
 - Run Start Time UTC
 - Table Name
 - Run Start Date/Time
- 1 - Get Catalog Variables
 - if_this_is_a_relocation_please_p...
 - provide_device_details
 - if_any_please_write_here
 - types_of_devices
 - is_this_a_new_network_connect...
 - please_provide_address_h...
 - if_this_is_a_relocation_please...
 - email_id
 - opened_on_behalf_of
 - proof_of_document
 - user_name

Step 2: We created an Action :Create Record

Action Properties

Action: Create Record

Action Inputs

* Table: Network database Table [u_netw...

* Fields:

- Requested For: Trigger - Service Catalog > First name
- Date of Enquiry: Trigger - Service Catalog > Run Start Date
- Device Details: 1 - Get Catalog Variables > type_of_devices
- Customer Document: 1 - Get Catalog Variables > please_provide_address_h...
- Assignment Group: Network

+ Add field value

Data

- Trigger - Service Catalog
 - Requested Item Record
 - Run Start Time UTC
 - Table Name
 - Run Start Date/Time
- 1 - Get Catalog Variables
 - 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...

Step 3: We created an Action :Ask For Approval

The screenshot shows the ServiceNow Workflow Studio interface for a 'Network Request' flow. The main panel displays the configuration for the 'Ask For Approval' action. The 'Action Properties' section shows the selected action is 'Ask For Approval'. The 'Action Inputs' section includes fields for 'Record' (set to '2 - ... > Network database Tab...'), 'Table' (set to 'Network database Table [u_netw...]', 'Approval Reason', 'Approval Field' (set to 'Select a field'), and 'Journal Field' (set to 'Select a field')). Below these are 'Rules' for approval: 'Approve' when 'Anyone approves' (with Abel Tuter selected) or 'Actual date' (with 'Drop date/time pill here'). The 'Data' sidebar on the right lists various flow variables and catalog variables, such as 'Requested Item Record', 'Run Start Time UTC', 'Table Name', 'Run Start Date/Time', and 'proof_of_document'.

Step 4: We created a Flow Logic

The screenshot shows the continuation of the 'Network Request' flow logic. A new step labeled '4' is added, which is an 'If' condition. The condition label is 'If Approve'. The condition itself is set to 'Approved' (with 'or and' options available). The 'Data' sidebar remains visible on the right side of the screen.

Step 5: We created an action: Send Email

Action Properties

Action: Send Email

Action Inputs

- Target Record: Network database Table
- Table: Network database Table [u_network]
- Include Watermark: checked
- To: 1 - Get Catalog Variable
- CC:
- BCC:
- Subject: Hi! This is working

Body:

Status: Published | Application: Global

Step 6: we created an action: Update Record

Action Properties

Action: Update Record

Action Inputs

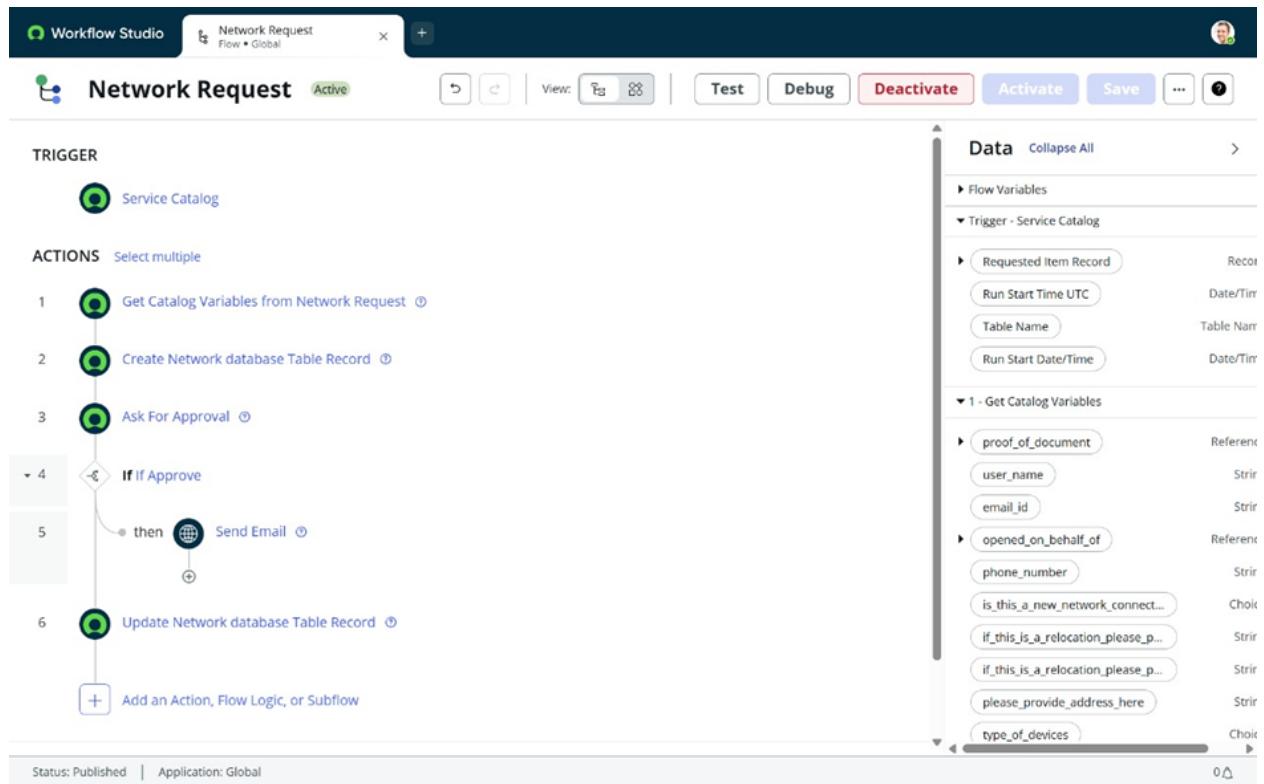
- Record: Network database Table
- Table: Network database Table [u_network]
- Fields:
 - Work Status: InProgress
 - Assigned to: Abel Tuter

+ Add field value

Delete Cancel Done

Status: Published | Application: Global

Flow chart:



Final Testing in End User portal & Instance

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

Catalog Item - Network Request

Catalog Item Network Request

Process Engine

Select the appropriate process engine for the catalog item. Only one engine can be selected.

Flow Network Request

Workflow

Execution Plan

Copy Try It Update Edit in Catalog Builder Delete

Then click on Try it and choose order now :

servicenow All Favorites History Admin : Network Request ☆

Service Catalog > Network > Network Request

Search catalog

Network request Management

Requester Information

Proof of Document
Click to add...

Order Now

User name

Email Id

Opened on behalf of

Phone Number

Quantity 1
Delivery time 0 Days

Order Now

Add to Cart

Shopping Cart
Empty

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

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

servicenow All Favorites History : Order Status: REQ0010003 ☆

Search

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: 2025-09-18
of Complete Order:

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

Back to Catalog Continue Shopping Home

servicenow All Favorites History : Request - REQ0010003 ⚡ Search

Request - REQ0010003

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			

Buttons: Update, Cancel Request, Copy, Delete

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

Requested Items (1)

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

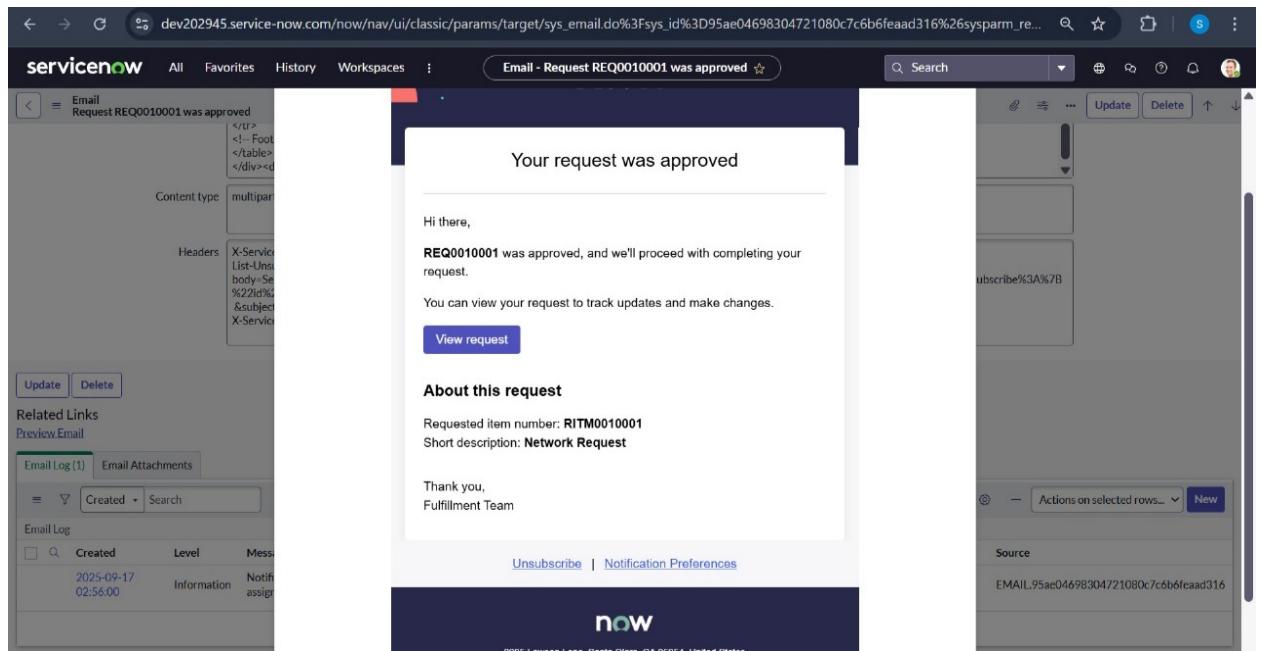
And we can see our request number is created and got acknowledged as request approved.

servicenow All Favorites History Workspaces : Emails ⚡ Search

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.

A screenshot of the ServiceNow Request Summary page. The top navigation bar includes "servicenow", a search bar, "My Tasks", "My Requests", "My Favorites", a user profile icon, and "Get support". The page title is "Home > Request Summary". The main content area shows the following details:

Submitted :2025-09-17 02:55:56
Request Number : REQ0010001
Requested for : Abel Tuter
Estimated Delivery : 2025-09-19

Item	Delivery Date	Stage	Price (each)	Quantity	Total
Network Request	2025-09-19	▶ Assess or Scope Task	---	1	---

Total: \$0.00

At the bottom, there are links for "Leadership", "Marketing", "Diversity and Inclusion", "Social Responsibilities", and a blue speech bubble icon.