

# Automated Network Request Management in ServiceNow

## Project Overview

This project is designed to develop and implement an automated and streamlined solution for managing network-related service requests within the ServiceNow platform. It focuses on providing a seamless experience for end users to submit, track, and receive updates on network service requests through a user-friendly self-service portal. The solution leverages ServiceNow's powerful workflow engine, customizable service catalog, and approval processes to ensure that requests are accurately captured, validated, routed, and fulfilled efficiently. Where applicable, the system integrates with network automation tools and scripts to automate the fulfillment of standard requests, reducing manual efforts and minimizing errors.

## Objectives

- Provide a centralized and user-friendly self-service portal for network service requests.
- Automate the request intake process using dynamic forms tailored to specific network services.
- Implement approval workflows to ensure compliance and proper governance.
- Enable real-time communication and status updates for both requesters and technicians.
- Integrate with existing network automation or orchestration tools to automate routine tasks.

## Technical Architecture

- **ServiceNow Platform:** Utilizes ServiceNow's Service Catalog, Workflow Engine, and Notification Modules.
- **Workflow Engine:** Automates routing, approvals, task assignments, and

escalations.

- **Integration Layer:** REST APIs, MID Server, or custom scripts to interface with network automation tools.
- **Self-Service Portal:** User interface for submitting requests, viewing status, and receiving notifications.
- **Security:** Role-based access controls for request submission, approval, and task fulfillment.

## Benefits

- **Efficiency:** Automates manual network request handling, reducing processing time.
- **Accuracy:** Ensures requests are complete and compliant before fulfillment.
- **Visibility:** Provides transparent status tracking for both users and IT teams.
- **Scalability:** Easily extendable to add new request types or integrate additional automation tools.
- **User Experience:** Simplifies the network service request process through an intuitive portal.

## Process and Procedure

This section outlines the step-by-step process and internal procedures followed from request submission to fulfillment, ensuring automation and governance within ServiceNow.

### 1. Request Submission

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- **User Access:** End users access the ServiceNow self-service portal to submit network-related service requests.
- **Service Catalog Selection:** Users select the appropriate network service catalog item (e.g., IP address allocation, VPN access, firewall rule change).

- **Dynamic Form Completion:** Users fill out dynamic forms tailored to the request type. These forms capture all necessary details such as requester info, device IPs, VLAN IDs, business justification, and any special requirements.

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- Validation:** Real-time validation checks ensure mandatory fields are filled, data formats are correct, and any conditional logic is in place.

## 2.Request Validation and Logging

- **Automatic Logging:** Once submitted, the request is automatically logged in the ServiceNow Incident/Request Management module with a unique tracking ID.
- **Initial Validation:** The system performs automated checks (e.g., duplicate request detection, compliance with network policies) and flags issues for manual review if necessary.

**servicenow** All Favorites History Workspaces Catalog Item - Network Request

Application scope: Global  
Update set: Default (Global)

Catalog Item - Network Request

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

Application: Global

Category: Network and connectivity

State: --None--

Checked out: --None--

Owner: System Administrator

Active: ☒

Fulfillment automation level: Unspecified

Item Details | Process Engine | Picture | Pricing | Portal Settings

Short description: Network request Management

Description: Network request Management

**servicenow** All Favorites History Workspaces Catalog Item - Network Request

Application scope: Global  
Update set: Default (Global)

Run Point Scan  
(SN Utils) Versions (34)

Variables (9) | 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

Type	Question	Order
Single Line Text	Please provide address here	200
Multiple Choice	Is this a new connection or a relocation	300
Single Line Text	If this is a relocation, Please provide ...	310
Container Start	Location & DeviceType	400
Container Start	Service Details	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

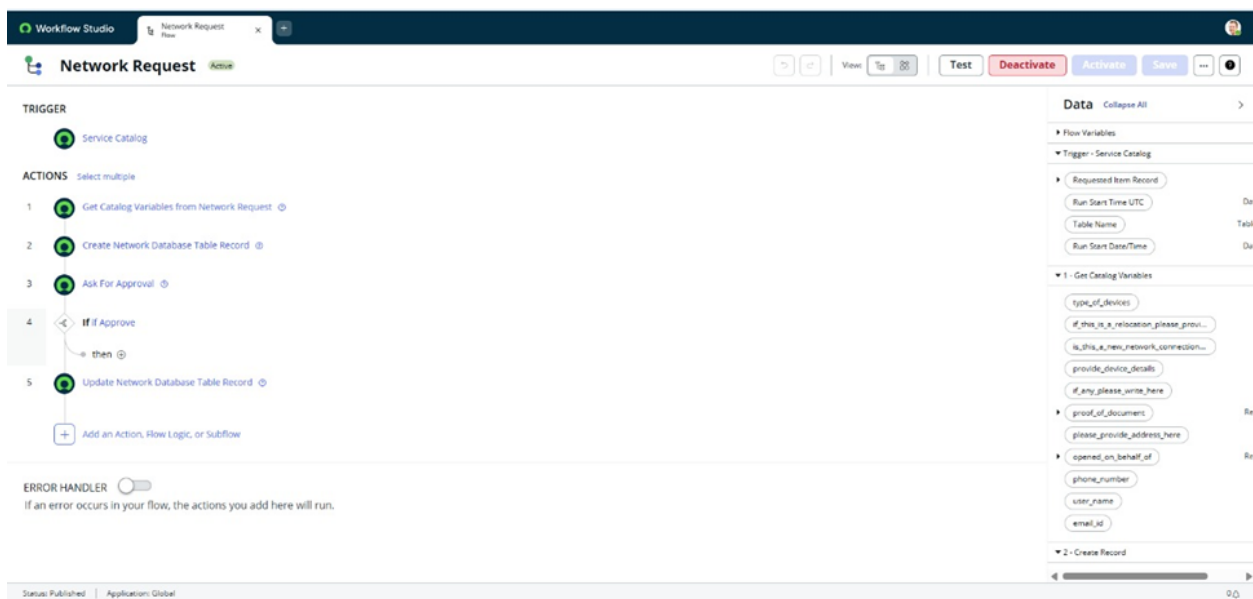
1 to 9 of 9

### 3.Approval Workflow

- **Route for Approval:** Based on the request type and sensitivity, the system triggers a predefined approval workflow. For example:
- Low-risk requests may require a single-level approval from the network team lead.
- High-risk or sensitive requests trigger multi-level approvals (e.g., security officer,

network manager).

- **Approval Notifications:** Approvers receive notifications via email and ServiceNow dashboards, including request details and action buttons (approve/reject/comment).
- **Escalations and Reminders:** If approvals are not actioned within defined SLAs, automated reminders and escalations are triggered.
- **Approval Outcome:** If approved, the request proceeds to fulfillment. If rejected, the requester is notified with comments and may be prompted to modify and resubmit.



## . Fulfillment Process

- **Task Assignment:** Upon approval, ServiceNow creates fulfillment tasks and assigns them to the appropriate network operations team or automation system.
- **Automated Execution (Optional):** For standard, repeatable requests, ServiceNow integrates with network automation tools (like Ansible, Cisco DNA Center) to automatically apply configurations or changes.

EXECUTION DETAILS		Network Request		Test Run - Completed	Open flow	Open context record
Show Action Details			State	Start time		
FLOW STATISTICS			Run as: System Administrator	Open flow logs	Completed	2025-09-15 08:01:19 318ms
TRIGGER						
Catalog Item Requested						
ACTIONS						
1	Get Catalog Variables from Network Request	Core Action	Completed	2025-09-15 08:01:19	32ms	
2	Create Record	Core Action	Completed	2025-09-15 08:01:19	12ms	
3	Ask For Approval	Core Action	Completed	2025-09-15 08:01:19	245ms	
4	If if Approve	Flow Logic	Evaluated - False	2025-09-15 08:01:19	15ms	
5	Update Record	Core Action	Completed	2025-09-15 08:01:19	11ms	
ERROR HANDLER						

- **Manual Execution:** For requests requiring manual intervention, technicians receive task details and perform the required changes.
- **Status Updates:** As tasks progress, ServiceNow updates the request status in real-time, notifying the requester and updating dashboards.

Order Status					
Thank you, your request has been submitted					
Order Placed: 2025-09-15 08:07:53 Request Number: <a href="#">REQ0010004</a> Estimated Delivery Date of Complete Order: 2025-09-15					
Description	Delivery Date	Stage	Price (ea.)	Quantity	Total
Network request Management	2025-09-15			1	
				Total	-

## 5. Completion and Closure

- **Verification:** Technicians confirm the successful completion of the request,

documenting any relevant notes or issues encountered.

- **Requester Confirmation:** In some cases, the requester is asked to verify that the network service is working as expected.
- **Request Closure:** The request is marked as completed and closed within ServiceNow. All related data is archived for audit and reporting purposes.
- **Feedback Collection:** Optionally, users may be prompted to provide feedback on the service experience for continuous improvement.

## 6. Monitoring and Reporting

- **Dashboard Monitoring:** Network and IT managers monitor real-time dashboards for pending requests, approval bottlenecks, SLA compliance, and fulfillment efficiency.
- **Periodic Reporting:** Automated reports on request volume, approval times, fulfillment duration, and customer satisfaction are generated and shared with stakeholders.
- **Audit and Compliance:** All request workflows, approvals, and fulfillment actions are logged.

### *Summary Flowchart (High-Level)*

User submits request → Validation → Approval workflow → Fulfillment (automated/manual) → Completion → Feedback → Reporting

## Conclusion

The Automated Network Request Management project will significantly enhance how network service requests are handled within the organization by leveraging ServiceNow's automation capabilities. This initiative aims to reduce manual effort, improve turnaround times, and increase overall user satisfaction by providing a transparent and automated request management system.

Submitted :2025-09-17 06:18:27  
Request Number : **REQ0010006**  
Estimated Delivery : 2025-09-17

Item	Delivery Date	Stage	Price (each)	Quantity	Total
Network Request	2025-09-17		---	1	---
					Total: \$0.00

Output Screen:

servicenow

AllFavoritesHistoryWorkspacesAdmin

Emails

Created

Search

All > Created on Today

Created

2025-09-17 06:15:41

2025-09-17 06:18:38

2025-09-17 06:15:41

2025-09-17 06:18:38

2025-09-17 06:15:42

now

Your request was approved

Hi System,  
**REQ0010006** 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: **RITM0010006**  
Short description: **Network Request**  
  
Thank you,  
Fulfillment Team

Unsubscribe

 | 

Notification Preferences

Application scope: Global  
Update set: Default (Global)

Actions on selected rows...

New

Close

Type	User ID
send-ready	(empty)
send-ready	(empty)
send-ready	(empty)
send-ready	(empty)
send-ready	(empty)



