

## Phase 5: Deployment, Documentation & Final Presentation

### Document Technical Blueprint

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#### Overview

This technical blueprint documents the internal architecture, automation logic, and data flow implemented for the **Automated Network Request Management in ServiceNow** solution. It provides a detailed breakdown of Flow Designer workflows, catalog variable mappings, custom table structures, approval logic, and portal-level configurations, ensuring the solution is transparent, maintainable, and reproducible.

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#### System Architecture Overview

The solution is built using native ServiceNow components and follows a low-code, configuration-driven approach:

- Service Catalog for user request intake
  - Flow Designer for automation and approvals
  - Custom tables for structured data storage
  - UI Policies and Variable Sets for form behavior
  - Service Portal for end-user interaction
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#### Flow Designer Workflow

##### Flow Name

##### Network Request

## Trigger Configuration

- **Trigger Type:** Service Catalog
- **Trigger Condition:** Requested Item Submitted
- **Catalog Item:** Network Request

This trigger initiates automation immediately after a user submits a network request from the Service Portal.



### Screenshot (Recommended)

Flow trigger configuration showing Service Catalog → Requested Item

The screenshot displays the Workflow Studio interface for configuring a 'Network Request' trigger. The trigger is set to 'Service Catalog' and 'Run flow in background (default)'. The 'Data' panel on the right shows the variables passed to the flow, including 'Requested Item Record' and 'Get Catalog Variables'.

Variable	Type
Requested Item Record	Record
Run Start Time UTC	Date/Time
Table Name	Table Name
Run Start Date/Time	Date/Time
opened_on_behalf_of	Reference
email_id	String
user_name	String
phone_number	String
types_of_devices	Choice
customer_address	Multiple Lin...
customer_document	Reference
device_details	String

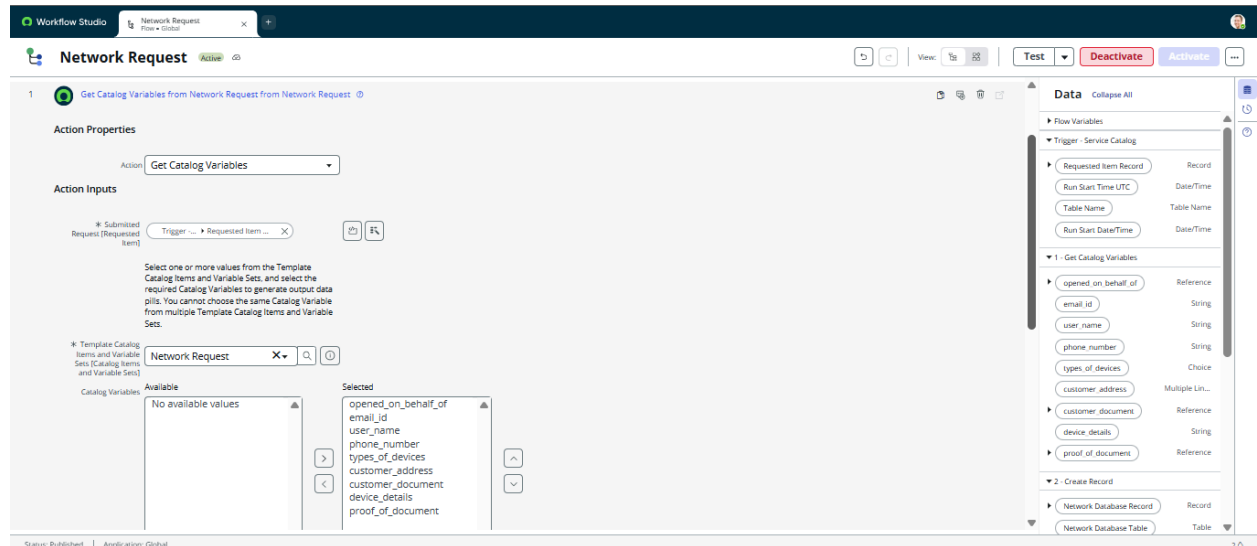
## Flow Actions Overview

### 1. Get Catalog Variables

- Retrieves all submitted catalog variables from the request
- Variables selected explicitly to avoid data loss
- Acts as the primary data source for downstream actions

## Screenshot (Recommended)

Get Catalog Variables action with selected variables



The screenshot shows the ServiceNow Workflow Studio interface for a workflow named 'Network Request'. The 'Get Catalog Variables' action is selected, and its configuration is displayed. The 'Action Inputs' section shows the 'Submitted Request (Requested Item)' trigger. The 'Template Catalog Items and Variable Sets (Catalog Items and Variable Sets)' section shows the 'Network Request' template. The 'Catalog Variables' section shows a list of available variables, with the following variables selected:

- opened\_on\_behalf\_of
- email\_id
- user\_name
- phone\_number
- types\_of\_devices
- customer\_address
- customer\_document
- device\_details
- proof\_of\_document

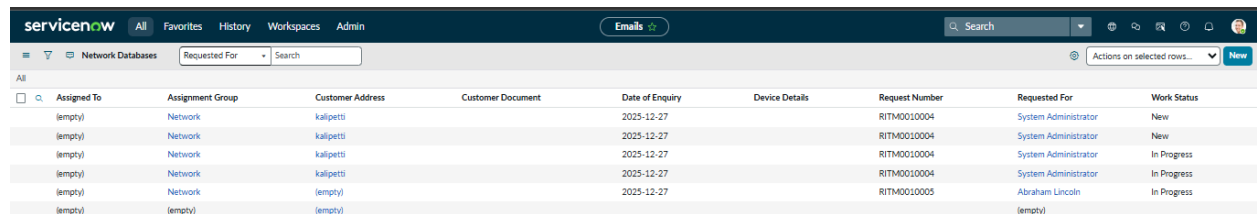
The 'Data' panel on the right shows the output of the action, including the 'Trigger - Service Catalog' and the '1 - Get Catalog Variables' section, which lists the selected variables and their data types.

## 2. Create Record – Network Database

- Creates a new record in the custom table **u\_network\_database**
- Stores request data in a structured format for tracking and reporting

## Screenshot (Recommended)

Create Record action with table set to u\_network\_database



The screenshot shows the ServiceNow 'Network Databases' table. The table has the following columns: Assigned To, Assignment Group, Customer Address, Customer Document, Date of Enquiry, Device Details, Request Number, Requested For, and Work Status. The table contains several rows of data, including requests for 'kali/petsi' and 'Abraham Lincoln'.

Assigned To	Assignment Group	Customer Address	Customer Document	Date of Enquiry	Device Details	Request Number	Requested For	Work Status
(empty)	Network	kali/petsi		2025-12-27		RITM0010004	System Administrator	New
(empty)	Network	kali/petsi		2025-12-27		RITM0010004	System Administrator	In Progress
(empty)	Network	kali/petsi		2025-12-27		RITM0010004	System Administrator	In Progress
(empty)	Network	(empty)		2025-12-27		RITM0010005	Abraham Lincoln	In Progress
(empty)	(empty)	(empty)					(empty)	

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## Variable-to-Field Mapping Logic

Catalog variables are mapped to corresponding fields in the custom table using the **Add Fields (+)** option in Flow Designer.

### Example Mapping

Catalog Variable	Custom Table Field
Request Number	u_request_number
Requested For / Opened on behalf of	u_requested_for
Email ID	u_email
Phone Number	u_phone
Device Type	u_device_type
Device Details	u_device_details
Customer Address	u_customer_address
Assignment Group	Network

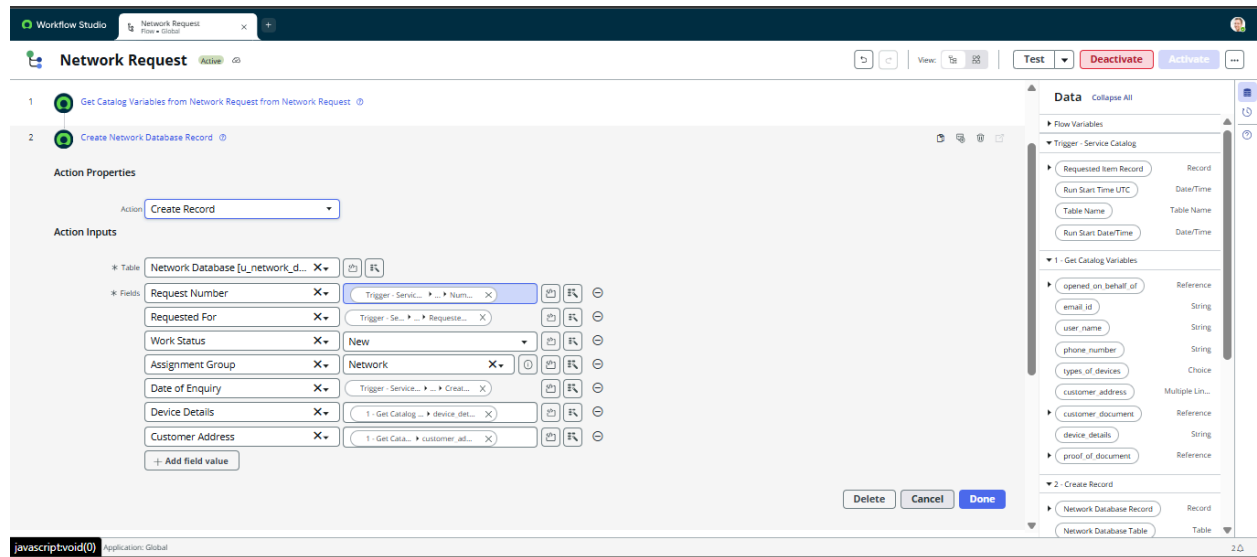
Work Status	New
Date of Enquiry	Request Created Date

This mapping ensures:

- No manual data entry
- Consistent data persistence
- Full traceability from request to record

### Screenshot (Recommended)

Field mapping section showing multiple variable mappings



The screenshot displays the Workflow Studio interface for a 'Network Request' workflow. The main workspace shows two steps: 'Get Catalog Variables from Network Request from Network Request' and 'Create Network Database Record'. The 'Create Network Database Record' step is selected, and its 'Action Properties' are shown. The 'Action' is set to 'Create Record'. The 'Action Inputs' section shows a table with the following fields and mappings:

Field	Mapping
Request Number	Trigger - Service... > ... > Num...
Requested For	Trigger - Se... > ... > Requeste...
Work Status	New
Assignment Group	Network
Date of Enquiry	Trigger - Service... > ... > Creat...
Device Details	1 - Get Catalog... > ... > device det...
Customer Address	1 - Get Cata... > ... > customer ad...

The right-hand pane shows the 'Data' section with a list of variables and their types:

- Flow Variables
  - Trigger - Service Catalog
    - Requested Item Record: Record
    - Run Start Time UTC: DateTime
    - Table Name: Table Name
    - Run Start DateTime: DateTime
- 1 - Get Catalog Variables
  - opened\_on\_behalf\_of: Reference
  - email\_id: String
  - user\_name: String
  - phone\_number: String
  - types\_of\_devices: Choice
  - customer\_address: Multiple Lin...
  - customer\_documents: Reference
  - device\_details: String
  - proof\_of\_documents: Reference
- 2 - Create Record
  - Network Database Record: Record
  - Network Database Table: Table

At the bottom of the interface, there are buttons for 'Delete', 'Cancel', and 'Done'.

## Approval Logic Configuration

### Ask for Approval Action

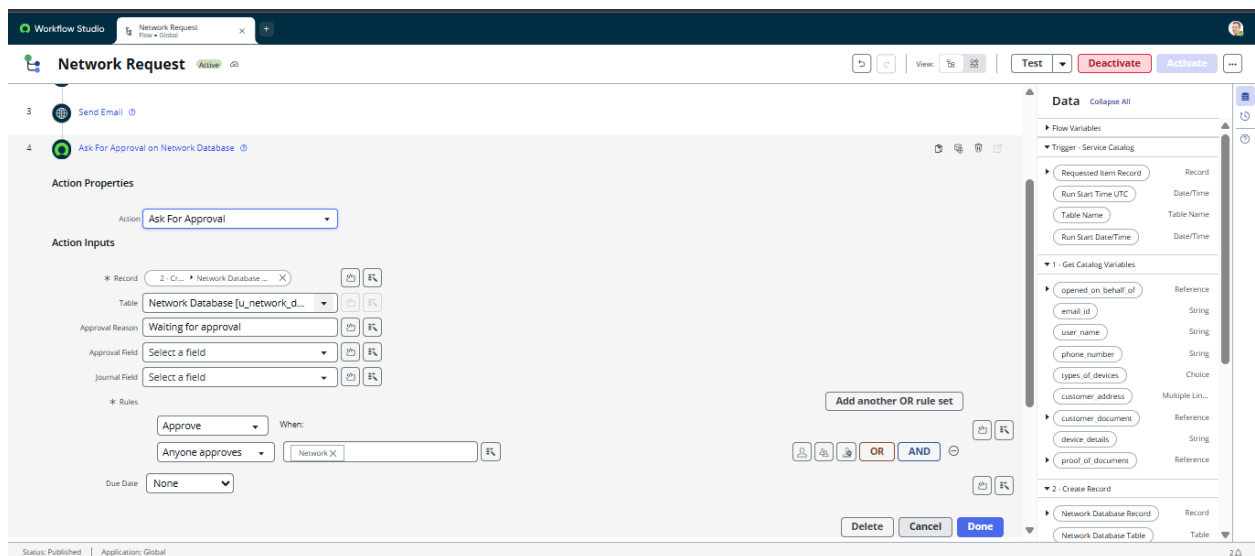
- Approval requested for the newly created **u\_network\_database** record
- Approval reason: *Waiting for approval*
- Approver assigned dynamically (user or group)

### Flow Logic – If Condition

- Approval state is evaluated using Flow Logic
- Conditions:
  - **Approved:** Continue workflow and update record
  - **Rejected:** Stop or mark request accordingly

### Screenshot (Recommended)

Ask for Approval action and If condition configuration



Workflow Studio interface showing the "Network Request" workflow. The workflow steps are:

- Create Network Database Record
- Send Email
- Ask For Approval on Network Database
- If (Condition: If Request is Approved)
- Update Network Database Record

The "If" condition is configured with:

- Condition Label: If Request is Approved
- Condition 1: 4 - Ask For Ap... Approval St... is Approved

Buttons: Delete, Cancel, Done

ERROR HANDLER: If an error occurs in your flow, the actions you add here will run.

Status: Published | Application: Global

Data panel (Collapsible All):

- Flow Variables
- Trigger - Service Catalog
  - Requested Item Record (Record)
  - Run Start Time UTC (DateTime)
  - Table Name (Table Name)
  - Run Start DateTime (DateTime)
- 1 - Get Catalog Variables
  - opened on behalf of (Reference)
  - email\_id (String)
  - user\_name (String)
  - phone\_number (String)
  - types of devices (Choice)
  - customer\_address (Multiple Lin...)
  - customer\_document (Reference)
  - device\_details (String)
  - proof of documents (Reference)
- 2 - Create Record
  - Network Database Record (Record)
  - Network Database Table (Table)

Workflow Studio interface showing the "Network Request" workflow execution details.

EXECUTION DETAILS: Network Request

Buttons: Test Run - Waiting, Cancel flow, Open flow, Open context record

Show Action Details

FLOW STATISTICS: Run as: System Administrator, Open flow logs, Waiting, 2025-12-27 23:48:13, 190ms

TRIGGER: Catalog Item Requested

ACTIONS:

Step	Action	State	Start time	Duration
1	Get Catalog Variables from Network Request	Completed	2025-12-27 23:48:13	18ms
2	Create Record	Completed	2025-12-27 23:48:13	7ms
3	Send Email	Completed	2025-12-27 23:48:13	26ms
4	Ask For Approval	Waiting	2025-12-27 23:48:13	135ms
5	If If Request is Approved	Not Run		
6	Update Record	Not Run		

ERROR HANDLER

## Post-Approval Record Update

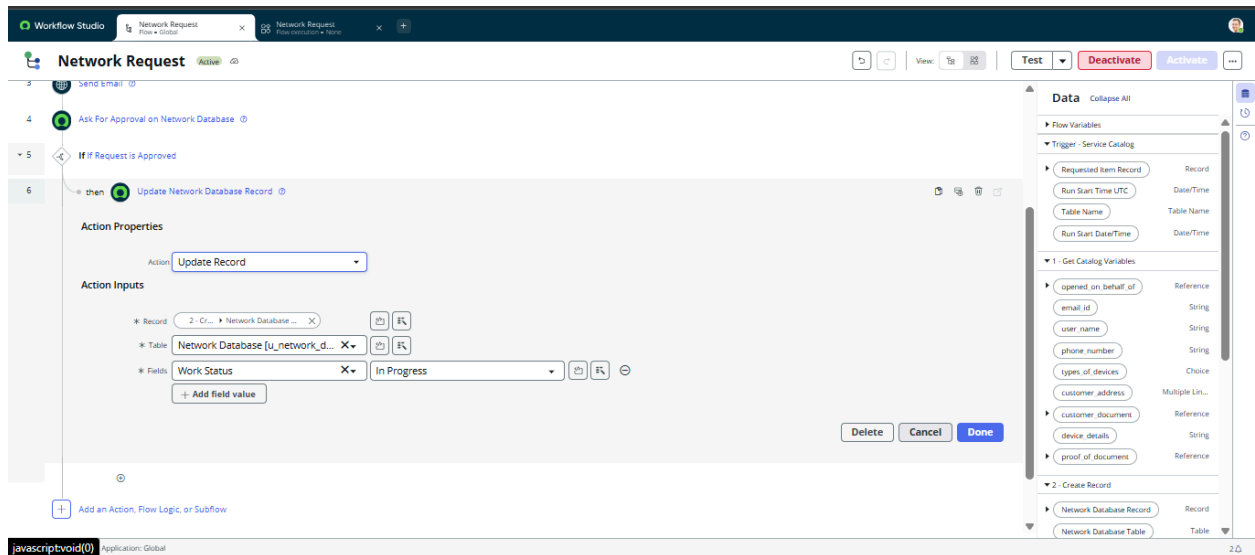
Once approval is completed:

- Network Database record is updated automatically

- Work Status or approval-related fields are modified
- Ensures request lifecycle consistency

## Screenshot (Optional)

### Update Record action configuration



## Custom Table Schema

### u\_network\_database

This table stores all submitted network requests in a structured format.

Key fields include:

- u\_request\_number
- u\_requested\_for (Reference → sys\_user)
- u\_email
- u\_phone



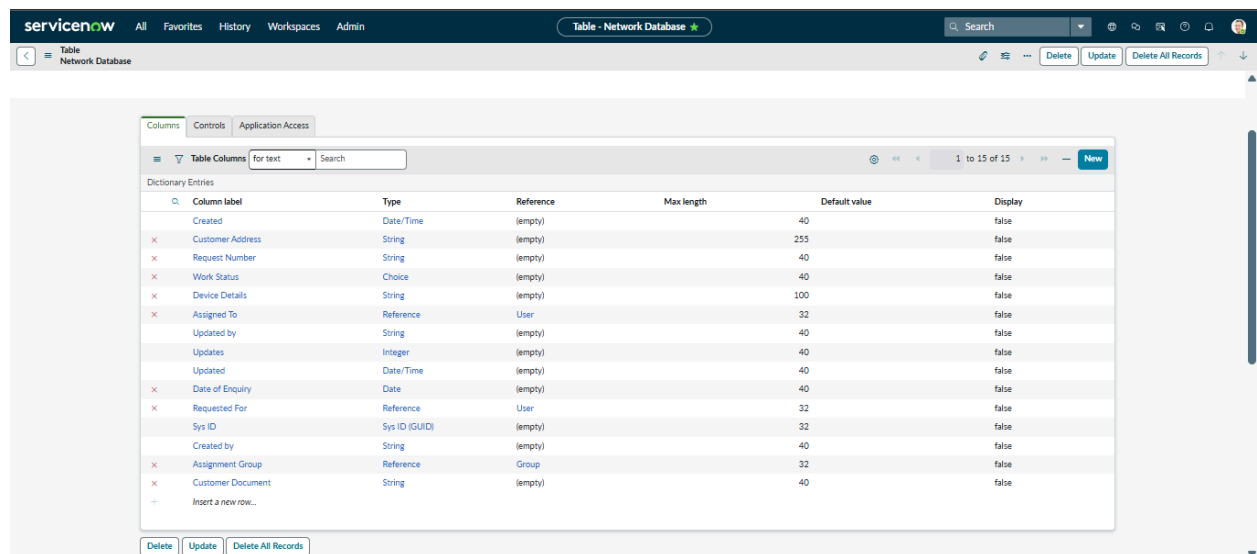
- u\_device\_type
- u\_device\_details
- u\_customer\_address
- u\_assignment\_group
- u\_work\_status
- u\_date\_of\_enquiry

### u\_network\_task (if applicable)

- Used for future task tracking or extension
- Supports scalability of the solution

### Screenshot (Optional)

Table schema showing fields and data types



The screenshot shows the ServiceNow interface for the 'Table - Network Database'. The 'Table Columns' tab is active, displaying a list of columns with their respective data types, references, and other attributes. The columns are as follows:

Column label	Type	Reference	Max length	Default value	Display
Created	Date/Time	(empty)	40		false
Customer Address	String	(empty)	255		false
Request Number	String	(empty)	40		false
Work Status	Choice	(empty)	40		false
Device Details	String	(empty)	100		false
Assigned To	Reference	User	32		false
Updated by	String	(empty)	40		false
Updates	Integer	(empty)	40		false
Updated	Date/Time	(empty)	40		false
Date of Enquiry	Date	(empty)	40		false
Requested For	Reference	User	32		false
Sys ID	Sys ID (GUID)	(empty)	32		false
Created by	String	(empty)	40		false
Assignment Group	Reference	Group	32		false
Customer Document	String	(empty)	40		false

At the bottom of the table, there is a link to 'Insert a new row...'. The interface also includes navigation buttons like 'Delete', 'Update', and 'Delete All Records'.

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## Service Portal Configuration

- Network Request catalog item is exposed via Service Portal
- Variable Sets used to group user information
- UI Policies control conditional visibility
- No custom portal widgets were required (native portal features used)



### Note:

If no custom widgets were developed, this is explicitly documented for clarity.

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## Technical Benefits

- Low-code and maintainable architecture
  - Clear separation of UI, logic, and data layers
  - Dynamic approvals without hard-coding
  - Ready for extension and reporting
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## Outcome

The technical blueprint confirms that the Automated Network Request Management solution is:

- Architecturally sound
- Secure and scalable
- Fully automated
- Easy to maintain and enhance

