

# Data Architecture

## **Purpose of Data Architecture**

The purpose of this document is to describe the data model and table structure used in the *Automated Network Request Management* application developed in ServiceNow.

The data architecture ensures that all network-related requests are stored in a structured, secure, and auditable format to support automation, reporting, and tracking.

## **Overview of Custom Tables**

To store and manage network request information, a custom table named **Network Database** has been created.

Attribute	Value
Table Label	Network Database
Table Name	<b>u_network_database</b>
Application Scope	Global
Purpose	Store structured data captured from Service Catalog network requests

This table acts as the central data repository for all network service requests submitted through the ServiceNow Service Catalog.

## Custom Table: u\_network\_database

The u\_network\_database table stores all essential details related to network requests, including requester information, device details, assignment details, and work status.

The table is populated automatically through Flow Designer automation when a catalog item is submitted.

The screenshot shows the ServiceNow Table Editor for the 'Network Database' table. The 'Table Columns' tab is active, displaying a list of columns with their respective types, references, and lengths. The columns are as follows:

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

Figure 1: Network Database (u\_network\_database) table structure in ServiceNow

## Field Properties

- Reference Fields:
  - Assigned To → References User table
  - Assignment Group → References Group table
- Choice Field:
  - Work Status is a choice field to maintain standardized request status values

- System Fields:
    - Fields like Sys ID, Created, Created By, Updated are system-generated and read-only
  - Mandatory Fields:
    - Request Number
    - Work Status
    - Assigned To (based on workflow stage)
- 

### **Table Relationships**

The u\_network\_database table maintains relationships with existing ServiceNow tables:

- **User Table (sys\_user)**  
Used for requester and assignment references.
- **Group Table (sys\_user\_group)**  
Used to route requests to appropriate fulfillment teams.

These relationships ensure:

- Role-based access control
  - Proper assignment and accountability
  - Seamless integration with ServiceNow task management
- 

### **Data Flow Overview**

1. User submits a **network request** via Service Catalog
2. Catalog variables are captured using **Flow Designer**
3. Data is mapped and stored in **u\_network\_database**

4. Records are updated automatically as approvals and fulfillment progress
5. Final status is recorded for tracking and reporting

---

### **Conclusion**

The data architecture of the Automated Network Request Management system ensures a **clean, scalable, and auditable data structure**.

By using a custom table integrated with ServiceNow's native user and group tables, the system supports efficient automation, reliable tracking, and compliance with IT service management best practices.