

Phase – 2: Backend Development & Configurations

Module 1: Data Architecture

1. Phase & Task Reference

Phase: Backend Development & Configurations

Module: Data Architecture

Activities Covered:

- **Activity 1:** Creating a Custom Table
 - **Activity 2:** Creation of Fields
 - **Activity 3:** Defining Field Properties
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2. Objective

The objective of this module is to design and configure a structured data model to store and manage network request information within ServiceNow. This includes creating a custom table and defining appropriate fields with correct properties to support automation, approvals, and reporting.

3. Business Requirement

To effectively automate Network Request Management, the system must store request-related data in a centralized and structured manner. A dedicated database table is required to:

- Capture all network request details submitted via the Service Catalog
- Support approval workflows and automation logic

- Enable accurate tracking, auditing, and reporting
 - Ensure data consistency and integrity across the request lifecycle
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4. Configuration Details

4.1 Navigation

- Create Table:
System Definition > Tables
- Create Fields (Columns):
System Definition > Tables > Network Database > Columns

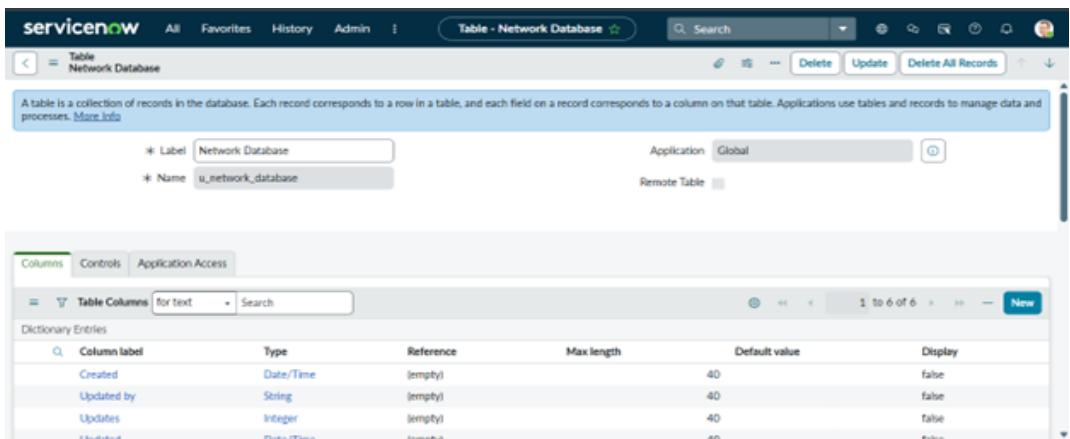
4.2 Configuration Steps (High-Level)

Activity 1: Creating a Custom Table

1. Navigate to System Definition > Tables.
2. Click New to create a new table.
3. Provide the following table details:
 - o Name: Network Database
 - o Label: Network Database
 - o Auto-generate schema: Enabled
4. Click Submit to create the table.

This table serves as the primary data store for all network request records.

Screenshot: Network Database table creation screen



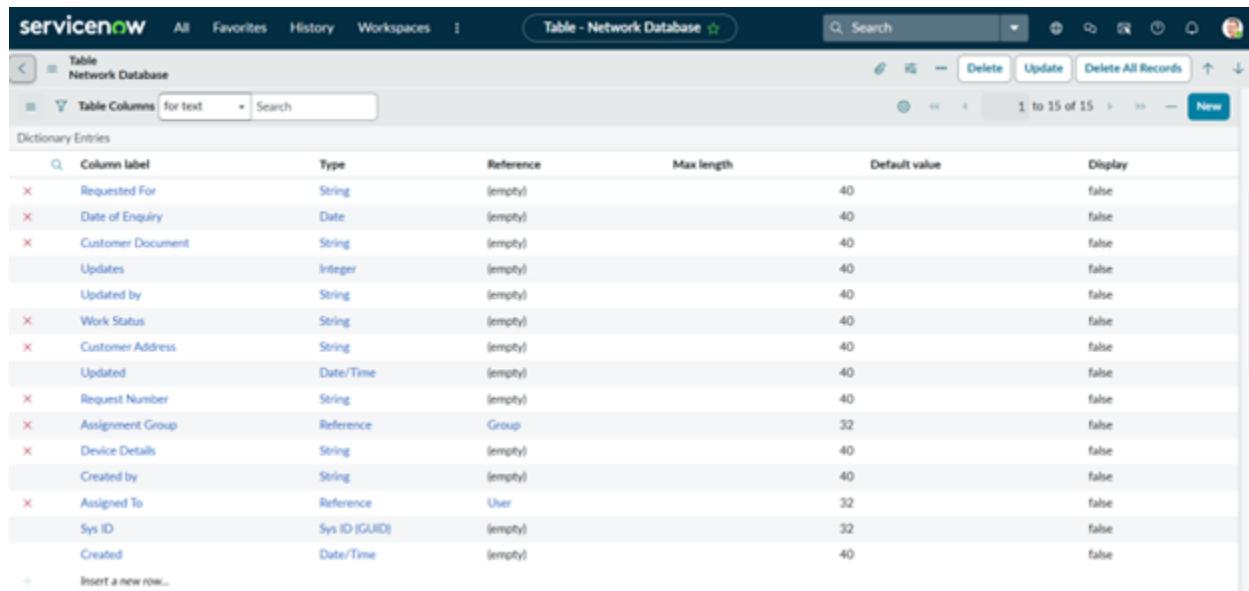
A table is a collection of records in the database. Each record corresponds to a row in a table, and each field on a record corresponds to a column on that table. Applications use tables and records to manage data and processes. [More info](#)

Column label	Type	Reference	Max length	Default value	Display
Created	Date/Time	(empty)	40	false	false
Updated by	String	(empty)	40	false	false
Updates	Integer	(empty)	40	an	false

Activity 2: Creation of Fields

1. Open **System Definition > Tables** from the Application Navigator.
2. Search for and select the **Network Database** table.
3. Navigate to the **Columns** related list.
4. Click **New** to add a new field (column).
5. Repeat the process to create all required fields needed to capture network request information.

 **Screenshot:** Columns list showing newly created fields



The screenshot shows the ServiceNow interface for managing table columns. The title bar says "Table - Network Database". The main area displays a table of columns with the following data:

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

Activity 3: Define Field Properties

For each field created, configure the following properties based on business needs:

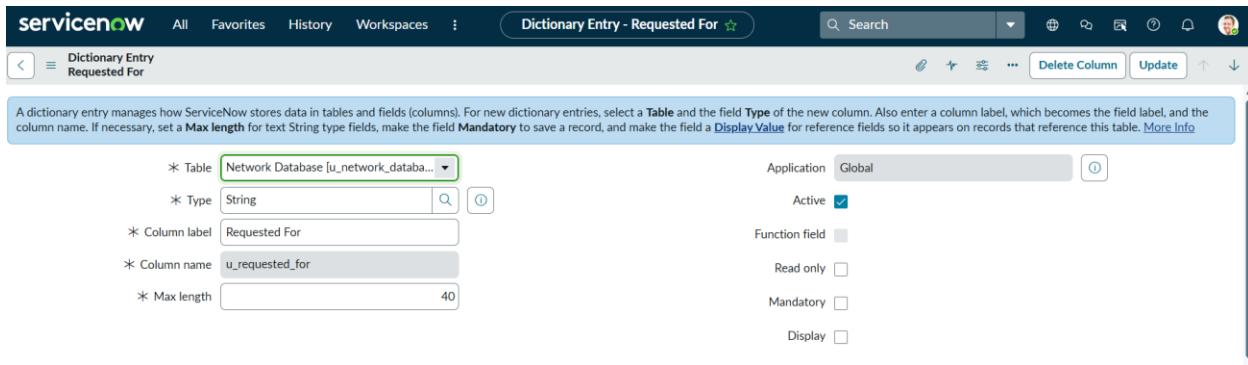
- **Column Label:**
User-friendly name displayed on forms and lists (e.g., *Customer Name*).
- **Column Name:**
System-generated internal field name (e.g., *customer_name*).
- **Data Type:**
Selected based on the nature of data:
 - String – Short text values
 - Integer – Whole numbers
 - Choice – Dropdown options
 - Reference – Links to other tables (e.g., User table)
 - Boolean – Yes/No values
 - Date / Date-Time – Date-based values

- **Max Length (Optional):**
Defines the maximum character limit for string fields.
- **Mandatory:**
Ensures required data is provided during record creation.
- **Default Value (Optional):**
Pre-populated value when a new record is created.
- **Read-Only:**
Prevents manual modification of system-generated or calculated fields.

6. Click **Submit** or **Save** to create each field.

All configured fields are added to the Network Database table and become available for automation and workflows.

Screenshot: Field properties configuration screen



5. Outcome

Upon completion of the Data Architecture module:

- A custom **Network Database** table was successfully created
- Required fields were defined with appropriate data types and constraints
- A structured backend data model was established
- The foundation was prepared for automation, approvals, and reporting in subsequent modules.