Data Architecture

Purpose of Data Architecture

- This document explains the data design and table structure implemented for the **Automated Network Request Management** application in ServiceNow.
- The data architecture is designed to securely store network request information in an organized and traceable manner, enabling smooth automation, monitoring, and reporting across the request lifecycle.

Overview of Custom Tables

- A dedicated custom table named **Network Request Repository** has been created to manage all network-related service requests.
- This table serves as the primary data source for storing information submitted through the Service Catalog and used by backend automation processes.

Attribute	Description
Table Label	Network Request Repository
Table Name	u_network_database
Application Scope	Global
Usage	Stores structured data captured from network service requests

Custom Table: u_network_database

- The **u_network_database** table contains all key information related to network requests such as requester details, system or device information, assignment data, and request progress status.

Records in this table are created and updated automatically through **Flow Designer** when users submit network requests via the Service Catalog.

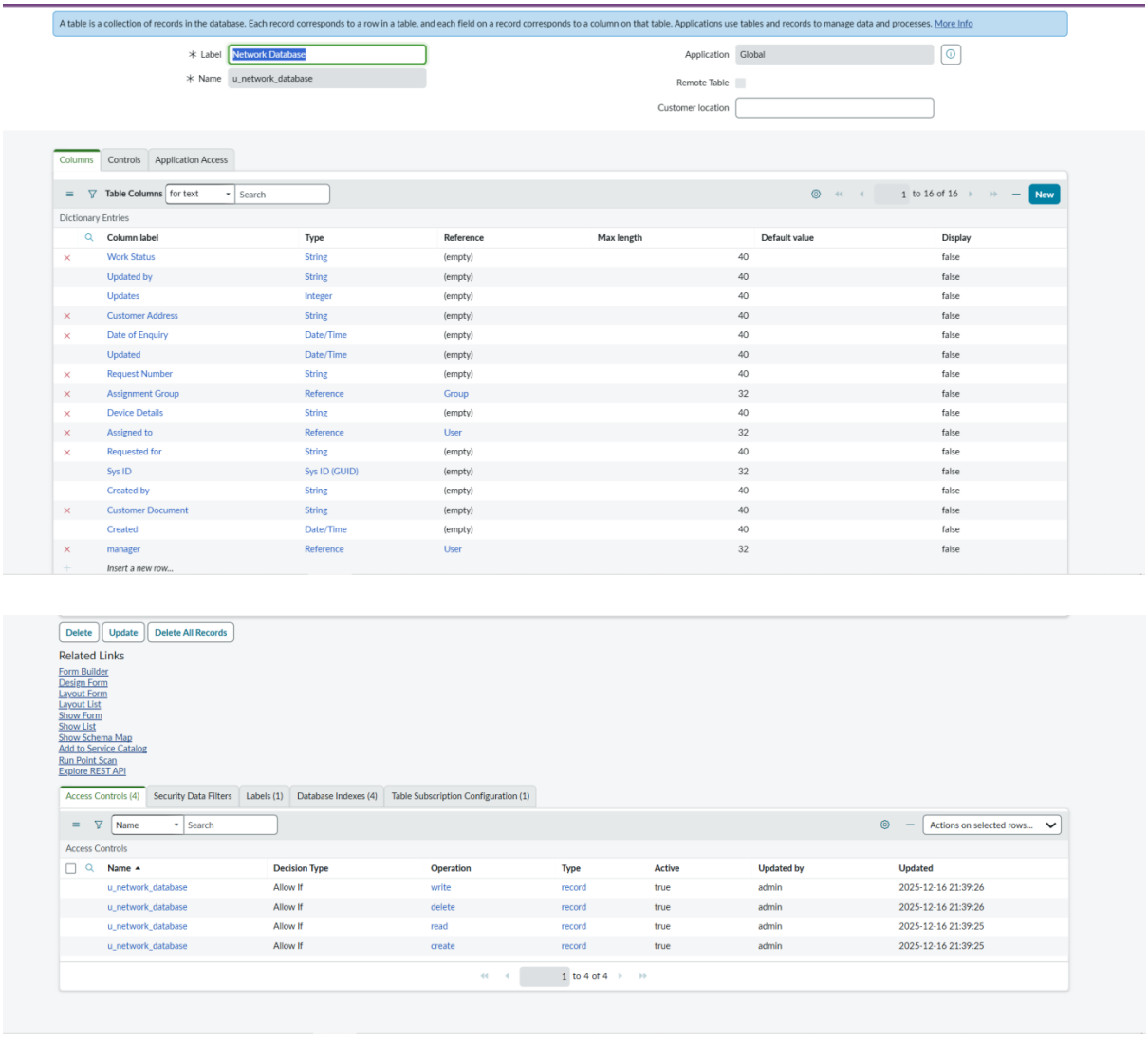

Figure 1: Network Request Repository (u_network_database) structure in ServiceNow

Field Characteristics

- **Reference Fields:**
    - Assigned To → Linked to the **User (sys_user)** table

    - Assignment Group → Linked to the **Group (sys_user_group)** table

- **Choice Fields:**
    - Work Status is configured as a choice field to maintain consistent and standardized status values across all requests
- **System-Generated Fields:**
    - Fields such as Sys ID, Created On, Created By, and Updated On are automatically maintained by ServiceNow and cannot be edited
- **Required Fields:**
    - Request ID
    - Work Status
    - Assigned To (mandatory at specific workflow stages)

Table Relationships

- The **u_network_database** table is integrated with standard ServiceNow tables to support seamless operations:
- **User Table (sys_user):**
  Used to identify requesters and assigned personnel
- **Group Table (sys_user_group):**
  Used to route requests to the appropriate network support teams

These relationships help achieve:

- Controlled access based on user roles
- Clear ownership and responsibility
- Smooth integration with ServiceNow task and assignment workflows

Data Flow Overview

1. A user raises a network request through the Service Catalog

2. Input values are captured by Flow Designer
3. Data is mapped and stored in the **u_network_database** table
4. Records are automatically updated during approval and fulfilment stages
5. Final request status is saved for reporting and auditing purposes.

Conclusion

- The data architecture implemented for the Automated Network Request Management system provides a reliable, scalable, and well-structured data foundation.
- By leveraging a custom table integrated with ServiceNow's core user and group tables, the solution supports efficient automation, accurate tracking, and alignment with ITSM best practices.