Project Design Phase

Solution Architecture

Date: 01 November 2025

Team ID: NM2025TMID04287

Project Name: Laptop Request Catalog

Maximum Marks: 4 Marks

Solution Architecture:

Goals of the Architecture:

• Automate the laptop request process through a centralized Service Catalog item.

• Enhance accuracy by using dynamic form behavior and validation rules.

• Reduce manual approval delays by automating manager and IT approvals.

• Improve tracking of asset provisioning and request fulfillment.

Key Components:

• Service Catalog Item – Laptop Request Form

• Catalog Client Scripts and UI Policies for dynamic behavior

• Workflow for approval routing (Manager $\rightarrow$ IT Asset Team)

• Asset Management integration for laptop allocation

• Notification system for approval and completion alerts

Development Phases:

1. Design and create the Laptop Request Catalog item in ServiceNow.

2. Configure dynamic form fields using Client Scripts and UI Policies.

3. Build approval workflows involving Manager and IT Asset Team.

4. Integrate with Asset Management for inventory tracking and assignment.

5. Test the workflow end-to-end to ensure smooth request processing.

Solution Architecture Description:

The Laptop Request Catalog architecture is designed to automate and streamline the process of requesting, approving, and allocating laptops within an organization using ServiceNow. The solution leverages the Service Catalog module to capture user requests through an interactive and dynamic form. Approval workflows are configured to automatically route requests to the respective manager and IT asset team. Once approved, the system assigns an available laptop from the Asset Management inventory. Notifications are triggered at each stage to ensure transparency and timely completion. The architecture minimizes manual effort, enhances accuracy, and ensures efficient resource utilization across the organization.

Example - Solution Architecture Diagram:

The following diagram represents the architecture and data flow of the Laptop Request Catalog solution, showing user interaction, catalog form submission, approval routing, and asset assignment.

[Figure 1: Architecture and Data Flow of the Laptop Request Catalog Application]

Reference: Adapted from ServiceNow documentation and ITSM best practices.

User → Service Catalog Form → Manager Approval Workflow → Laptop Assigned (Asset Management) → Notifications
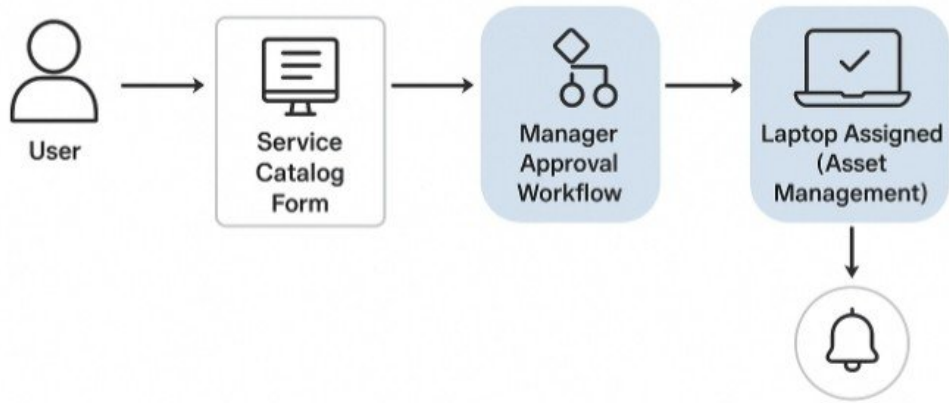
Laptop Request Catalog Process