

Laptop Request Catalog Item Final Report

1. INTRODUCTION

1.1 Project Overview

The Laptop Request Catalog Item project aims to transform the manual and delay-prone laptop request process into a dynamic, efficient ServiceNow Service Catalog experience. It provides role-based recommendations, dynamic form behavior, and automated workflows to improve accuracy and reduce administrative burden.

1.2 Purpose

This project ensures faster employee onboarding, accurate device provisioning, and reduced IT workload by leveraging ServiceNow's low-code platform to automate and streamline laptop requests.

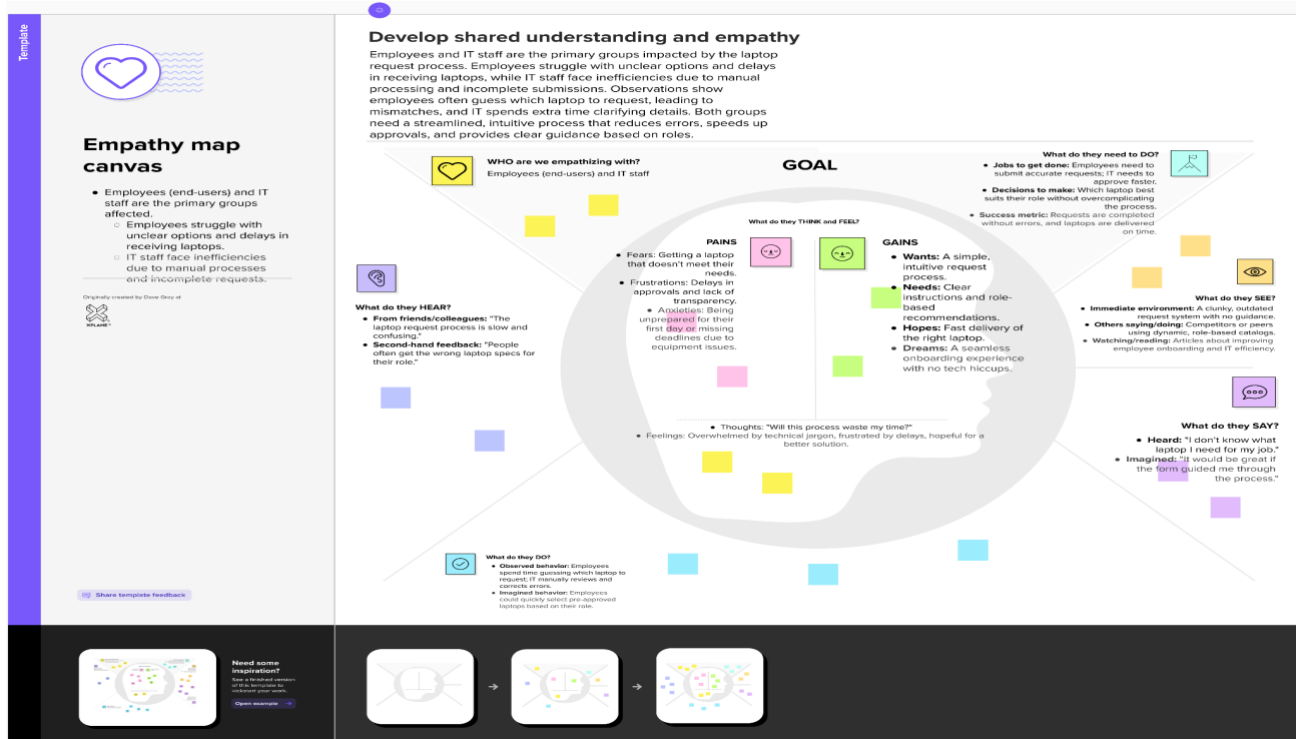
2. IDEATION PHASE

2.1 Problem Statement

Employees and IT teams struggle with unclear specifications, lack of role-based guidance, and inefficient approval processes when requesting laptops, leading to delayed onboarding and mismatched devices.

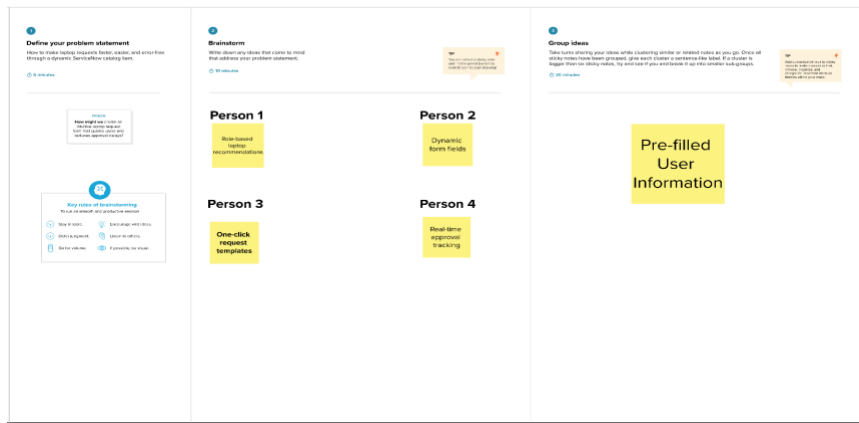
2.2 Empathy Map Canvas

- Says: "I'm lost in options, I need guidance."
- Thinks: "Will I get the right device?"
- Does: Manually submits requests, follows up via email.
- Feels: Anxious, frustrated.



2.3 Brainstorming

The team explored dynamic UI policies, role-based suggestions, approval workflows, inventory integration, and reset functionality to capture all improvement ideas before prioritizing.



3. REQUIREMENT ANALYSIS

3.1 Customer Journey Map

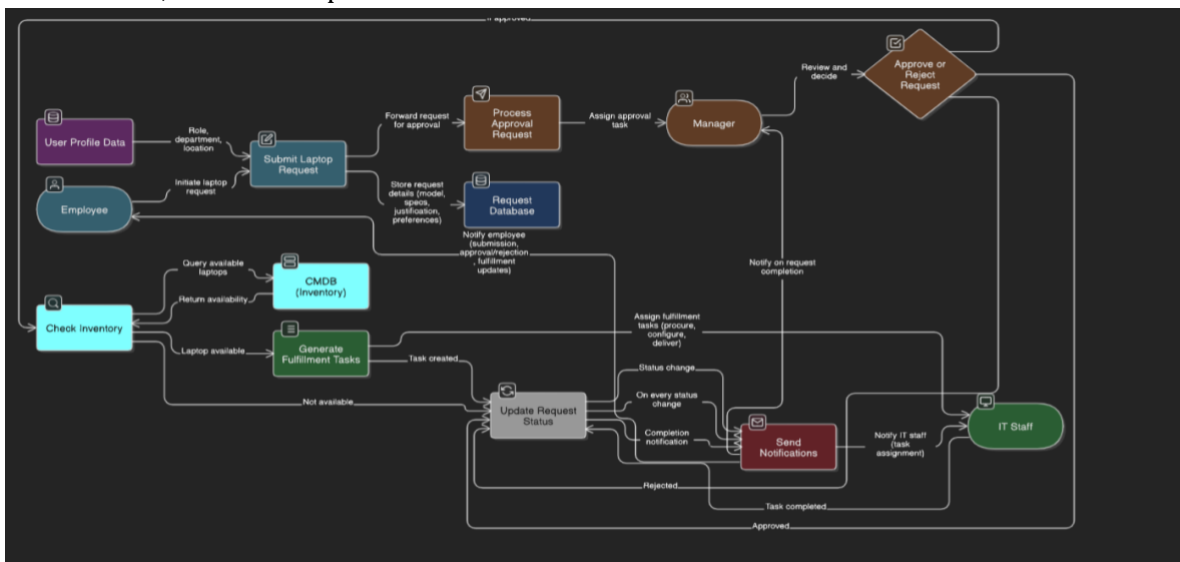
Users access the form, select role-based options, submit the request, receive notifications, and track status in real time.

3.2 Solution Requirement

- Custom catalog item with variables
- Dynamic field visibility and validation
- Approval workflow with comments
- Email notifications
- CMDB integration for inventory checks
- Real-time status tracking

3.3 Data Flow Diagram

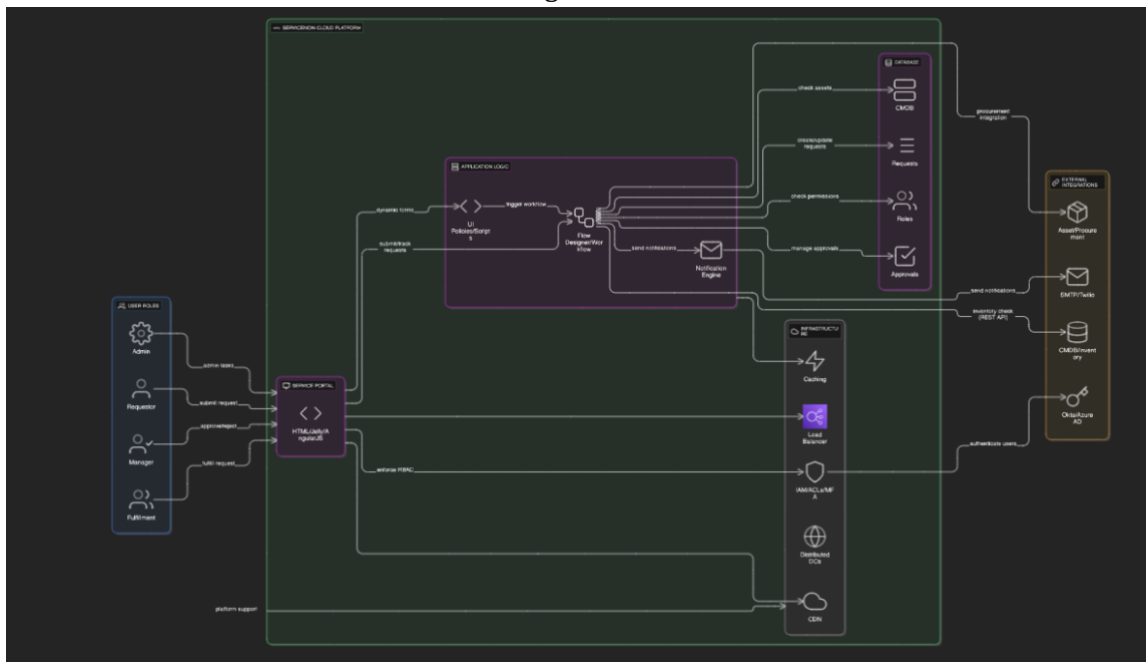
Data flows from the user interface through validation scripts to ServiceNow tables, triggering workflows, notifications, and status updates.



3.4 Technology Stack

- UI: ServiceNow UI Framework (Jelly, AngularJS)
- Logic: Glide Script, Flow Designer
- Database: ServiceNow CMDB
- Integration: REST APIs

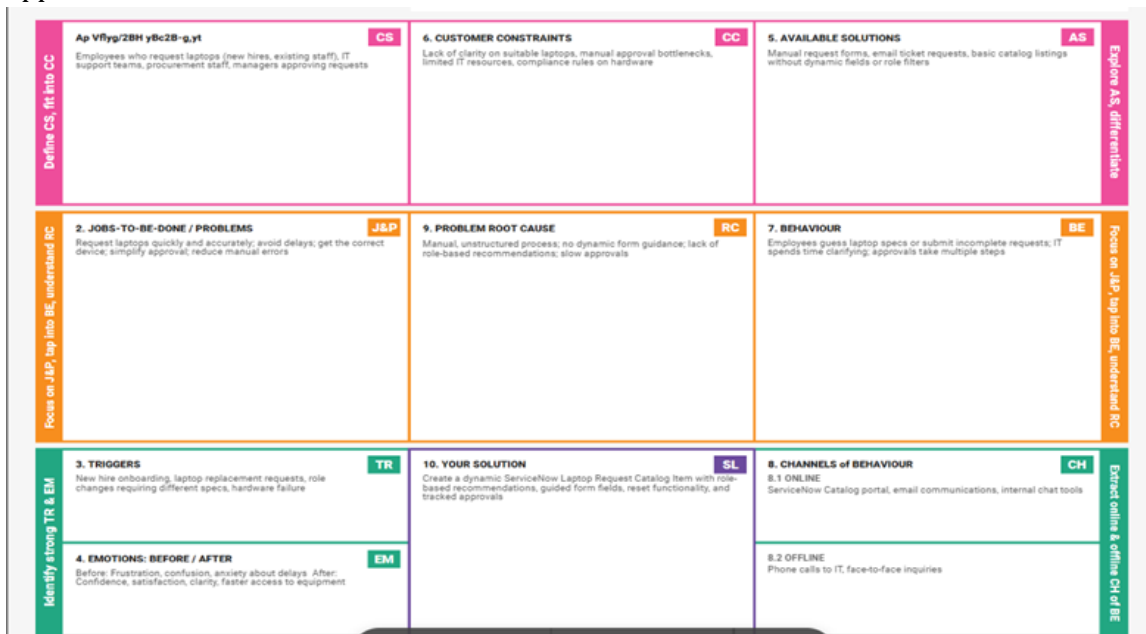
- Notifications: ServiceNow Notification Engine



4. PROJECT DESIGN

4.1 Problem–Solution Fit

The solution directly addresses delays and errors by guiding users with dynamic fields and automating approvals.



4.2 Proposed Solution

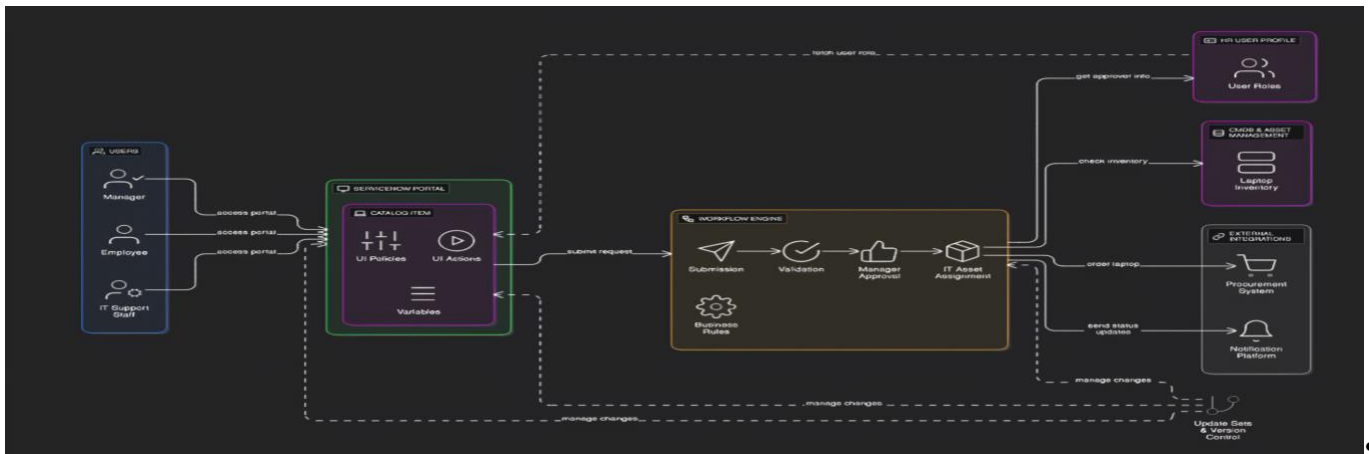
A ServiceNow Service Catalog item that provides:

- Role-based laptop recommendations
- UI policies for guided form behavior
- Automated approval workflows
- Inventory validation via CMDB
- Reset and export functionality

4.3 Solution Architecture

The architecture comprises:

- UI Layer: Catalog forms with variables and policies
- Logic Layer: Client scripts, business rules, workflow engine
- Data Layer: Task, Request, CMDB tables



Integration Layer: REST API calls to CMDB

5. PROJECT PLANNING & SCHEDULING

5.1 Project Planning

Completed over three sprints:

Sprint 1 (Jun 13-16): Form creation & UI logic (7 pts)

Sprint 2 (Jun 17-20): Approval workflows & notifications (5 pts)

Sprint 3 (Jun 21-25): Fulfillment tasks & CMDB integration (5 pts)

Velocity: 17 pts / 3 sprints = 5.67 pts/sprint

5.2 The team executed these milestones:

1. ServiceNow Instance Setup

- Signed up at developer.servicenow.com and requested a Personal Developer Instance (PDI)
- Filled necessary details; received instance access credentials via email
- Logged in and prepared the instance for development.

2. Creation of Local Update Set

1. Access Navigation

- Open ServiceNow and go to All → Update Sets.

2. Choose Local Update Sets

- Select Local Update Sets under the *System Update Sets* module.

3. Create New Update Set

- Click New to open the update set form.
- Enter a meaningful name, e.g., "Laptop Request".

4. Save and Submit

- Click Submit to save the new update set.

5. Activate the Update Set

- After submission, click Make Current.
- This ensures all your changes are tracked under this update set.

serviceNow | All | Favorites | History | Workspaces | Update Set - Create Laptop Request Project 2

Update Set New record

Name: Laptop Request Project 2 | Application: Global

State: In progress

Parent: | Release date: | Description:

Submit | Submit and Make Current

5.3 Creation of Service Catalog Item:

1. Open service now.
2. Click on All >> service catalog
3. Select maintain items under catalog definitions
4. Click on New.

Name	Short description	Active	Roles	Catalogs	Category	Price	Type	Updated
Privacy Filter - X1 Carbon		true		Service Catalog	Peripherals	\$43.19	Item	2022-11-20 20:46:33
Privacy Filter		true		Service Catalog	Peripherals	\$42.23	Item	2022-11-20 20:46:33
Privacy Filter		true		Service Catalog	Peripherals	\$40.31	Item	2022-11-20 16:00:00
Microsoft Access		true		Service Catalog	Software	\$139.99	Item	2022-11-20 20:46:33
Adobe Acrobat		true		Service Catalog	Software	\$139.99	Item	2022-12-05 20:46:33
This standard change template describes ...		true		Service Catalog	Network Standard Changes	\$0.00	Item	2025-03-31 02:15:56
Add/Remove users from group		true		Service Catalog	Services	\$0.00	Item	2022-12-05 10:17:33
Create, edit or convert PDF files		true		Service Catalog	Software	\$0.00	Item	2022-12-05 20:46:33
Store connected ways of creating and shar...		true		Service Catalog	Software	\$0.00	Item	2022-12-05 20:46:33
Apple iPad 3		false		Service Catalog	Tablets	\$600.00	Item	2022-11-20 20:46:33
Request for Apple iPhone 13		true		Service Catalog	Mobiles	\$799.00	Item	2022-05-20 08:30:16
Request for Apple iPhone 13 pro		true		Service Catalog	Mobiles	\$999.00	Item	2022-05-24 03:02:19
For Apple iPhone 4/4s		false		Service Catalog	Peripherals	\$19.00	Item	2022-11-20 20:46:33
Apple iPhone 5		false		Service Catalog	Mobiles	\$599.99	Item	2022-11-20 20:46:33
Apple iPhone 5 Cable		false		Service Catalog	Peripherals	\$19.00	Item	2022-11-20 20:46:33
Apple iPhone 6s		false		Service Catalog	Hardware	\$799.99	Item	2022-11-20 20:46:33
Apple iPhone 6s Plus		false		Service Catalog	Mobiles	\$799.99	Item	2022-11-20 20:46:33

- Fill the following details to create a new catalog item
Name: Laptop Request

Catalog: service

Catalog Category:

Hardware

- Short Description: Use this item to request a new laptop
- Click on 'SAVE'

serviceNow | All | Favorites | History | Workspaces | Admin | Catalog Item - Laptop Request

Service Catalog

Service Catalog

Hardware

State: None

Short description: Use this item to request a new laptop

Save | Update | Delete

5.4 Adding variables:

Step1:

- After saving the catalog item form scroll down and click on variable(related list)
- Click on new and enter the details as below

1. Variable 1:Laptop Model

Type: Single line text Name:

laptop model Order:100

- Click on submit

The screenshot shows the 'Variable - New Record' form in ServiceNow. The top navigation bar includes 'All', 'Favorites', 'History', 'Workspaces', and 'Admin'. The main form has the following fields:

- Application:** Global
- Type:** Single Line Text
- Catalog Item:** Laptop Request
- Order:** 100
- Active:** ☒
- Mandatory:** ☐
- Read only:** ☐
- Hidden:** ☐

Below the main form is a 'Question' tab with the following fields:

- Question:** Laptop Model
- Name:** laptop_model
- Conversational label:**
- Tooltip:**
- Example Text:**

A 'Submit' button is located at the bottom left of the form.

Again click on new and add Remaining variables in the above process

Variable 2:Justification

Type: Multi line text Name:

justification Order:200

2. Variable 3:Additional

Accessories Type: Checkbox

Name: additional_accessories

Order:300

3. Variable 4: Accessories

Details Type: Multi line

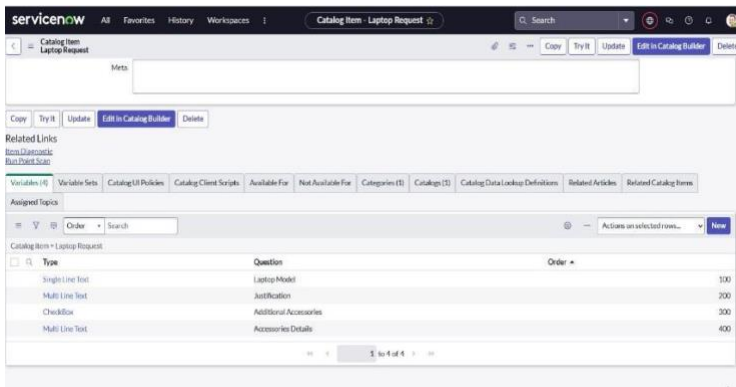
text

Name:accessories_details

Order:400

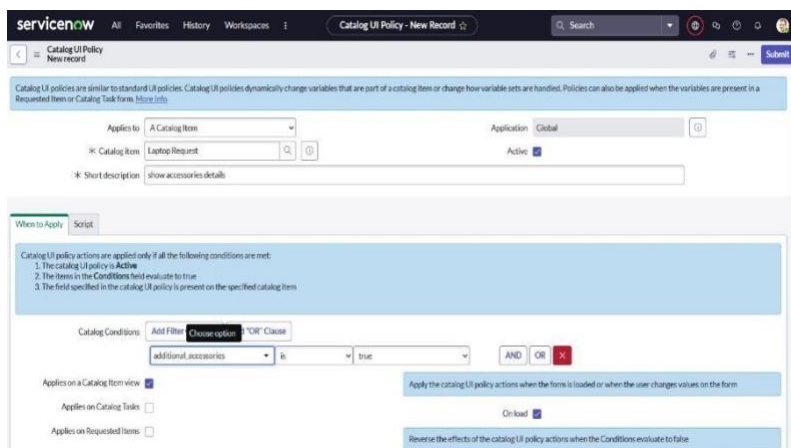
Step2:

- After adding above variable which are added to newly created catalog item
- Then save the catalog item form



5.5 Create Catalog Ui policies:

1. Click on all>> search for service catalog
2. Select maintain item under catalog definition
3. Search for 'laptop request' which is created before
4. Select 'laptop request' and scroll down click on "Catalog Ui policies"
5. In the catalog ui policies related list tab click on new
6. Give short description as: show accessories details
7. Set the Catalog Condition in the related list tab 'when to apply' [field: additional_accessories, operator: is, value: true]



8. Click on **save**.(do not click on submit)
9. Scroll down and select 'catalog ui action'
10. Then click on new button
11. Select variable name as: accessories_details

Order:10

0 Mandatory:

True Visible :

True

12. Click on save and again click save button of the catalog ui policy form.

ServiceNow Catalog UI Policy - show accessories details

1. The catalog UI policy is Active
2. The items in the Condition level evaluate to true
3. The field specified in the catalog UI policy is present on the specified catalog item

Catalog Conditions: Add Filter Condition, Add "OR" Clause
additional accessories is true AND OR

Applies on a Catalog Item view ☒
Applies on Catalog table ☐
Applies on Requested Items ☐

Apply the catalog UI policy actions when the items are loaded or when the user changes values on the form
On load ☒
Reverse the effects of the catalog UI policy actions when the Conditions evaluate to false
Reverse if false ☐

Update Delete

Related Links
Base Form Scan

Catalog UI Policy Actions

Name	Read only	Mandatory	Visible	Order
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5.6 Exporting changes to another instances:

1. Click on All >> search for update sets
2. Select local update set
3. Select created update set i.e. 'Laptop Request Project'
4. Set the state to 'Complete'
5. In the related list Update tab, updates are visible which we perform under this update set.
6. Click on export to XML ,it download one file

ServiceNow Update Set - Laptop Request Project

Name: Laptop Request Project
State: Complete
Parent:
Release date:
Install date:
Installed from:
Description:

Application: Global
Created: 2025-06-24 06:51:45
Created by: admin
Merged to:

Update Back Out

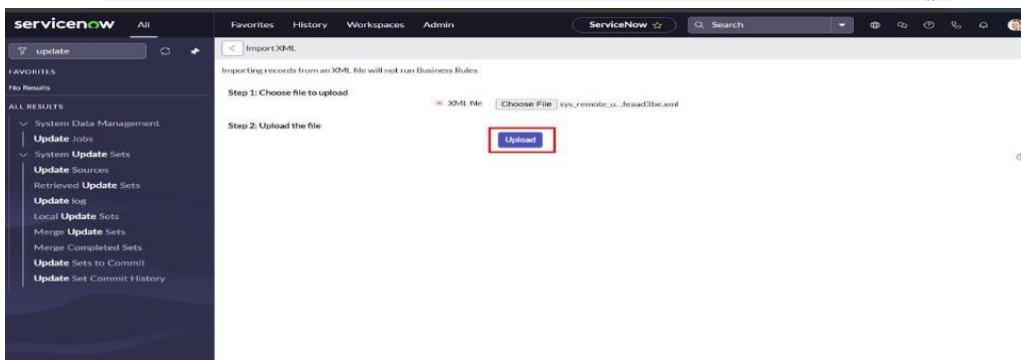
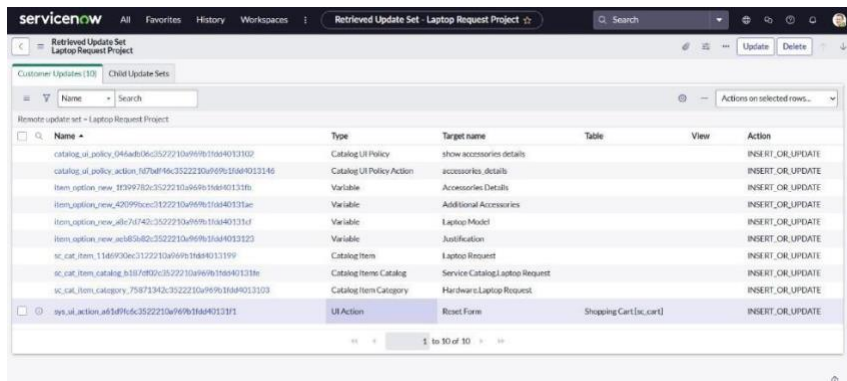
Related Links
Export to XML
Merge With Another Update Set
Scan Update Set

Customer Updates (10)

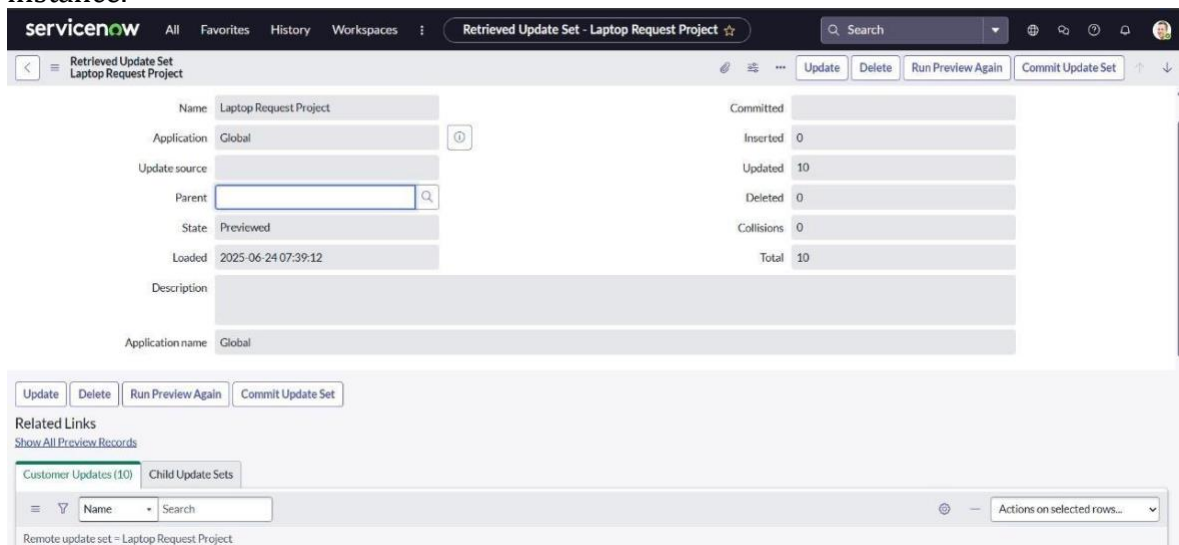
Created	Type	View	Target name	Updated by	Remote update set	Action
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5.7 Retrieving the update set:

1. Open another instance in incognito window
2. Login with credentials
3. Click on all>> search for update sets
4. Select “Retrieved update set” under system update set
5. It open retrieved update set list and scroll down
6. Click on Import update set from XML



7. Upload the downloaded file in XML file
8. Open retrieved update set 'laptop request project'
9. Click on preview update set
10. And click on commit update set
11. And also see the related tab updates
12. After committing update set in this instance we get all updates which are done in the previous instance.



5.8 Test Catalog Item:

1. Search for service catalog in application navigator in target instance
2. Select catalog under service catalog
3. Select hardware category and search for 'laptop request' item
4. Select laptop request item and open it
5. It shows three variables only.

The screenshot shows the 'Laptop Request' catalog item form in ServiceNow. The breadcrumb navigation is 'Service Catalog > Hardware > Laptop Request'. The form has a 'Laptop Model' text field, a 'Justification' text area, and an 'Additional Accessories' checkbox. On the right, there is a sidebar with 'Order this Item' (Quantity: 1, Delivery time: 2 Days), 'Order Now' and 'Add to Cart' buttons, and a 'Shopping Cart' section showing 'Empty'.

The screenshot shows the 'Retrieved Update Set' for the 'Laptop Request Project'. It displays a table of updates with columns: Name, Type, Target name, Table, View, and Action. The table lists various updates related to the 'Laptop Request' catalog item, including policies, variables, and actions.

Name	Type	Target name	Table	View	Action
catalog_ui_policy_544a809c3522210a9b16a4013102	Catalog UI Policy	show accessories details			INSERT_OR_UPDATE
catalog_ui_policy_action_5d7d4f463522210a9b16a4013148	Catalog UI Policy Action	accessories details			INSERT_OR_UPDATE
item_option_new_3099782c3522210a9b16a4013119	Variable	Accessories Details			INSERT_OR_UPDATE
item_option_new_420998cc3522210a9b16a401316a	Variable	Additional Accessories			INSERT_OR_UPDATE
item_option_new_8b74013522210a9b16a4013164	Variable	Laptop Model			INSERT_OR_UPDATE
item_option_new_9a805a623522210a9b16a4013123	Variable	Justification			INSERT_OR_UPDATE
sc_cat_item_318d9f0e3522210a9b16a4013199	Catalog Item	Laptop Request			INSERT_OR_UPDATE
sc_cat_item_catalog_b3873d023522210a9b16a401311e	Catalog Item Catalog	Service Catalog Laptop Request			INSERT_OR_UPDATE
sc_cat_item_category_73d719433522210a9b16a4013103	Catalog Item Category	Hardware Laptop Request			INSERT_OR_UPDATE
sys_ui_action_a85f9dc3522210a9b16a4013181	UI Action	Reset Form	Shopping Cart (sc_cat)		INSERT_OR_UPDATE

1. As per our scenario, when we click on additional accessories checkbox then accessories details fields is visible and that should be mandatory
2. Now see the results, it fulfills our requirements.

The screenshot shows the 'Laptop Request' catalog item form with the 'Additional Accessories' checkbox checked. The 'Laptop Model' field now contains 'hp'. The 'Justification' field is empty. The 'Additional Accessories' checkbox is checked, and the 'Accessories Details' field is now visible and empty. The sidebar on the right remains the same.

6. FUNCTIONAL AND PERFORMANCE TESTING

6.1 Performance Testing

Validated auto-numbering, field visibility logic, workflow triggers, notification delivery, and status tracking without latency.

7. RESULTS

7.1 Output Screenshots

Screenshots of form, dynamic behavior, and CMDB integration verify successful implementation.

8. ADVANTAGES & DISADVANTAGES

Advantages:

- Streamlined requests
- Reduced errors
- Scalable framework

Disadvantages:

- Requires ServiceNow expertise
- Depends on platform licensing

9. CONCLUSION

The project delivered a robust ServiceNow solution that automates and enhances the laptop request process, improving efficiency and user satisfaction.

10. FUTURE SCOPE

- Mobile-friendly interface
- Advanced reporting dashboards
- Integration with HR and asset management systems
- Bulk request and analytics features