

Technical Blueprint

1 Overview

The Technical Blueprint provides a detailed view of the system's internal design and configuration. It explains how ServiceNow components such as Flow Designer, Service Catalog variables, custom tables, approvals, and SLAs are wired together to deliver a reliable and scalable Employee Onboarding & Offboarding solution.

This section serves as a reference for administrators, reviewers, and those involved in future enhancements.

2 Flow Designer Workflow

The core automation is implemented using **Flow Designer**, eliminating the need for complex scripts and ensuring maintainability.

Workflow Stages:

1. Trigger on Service Catalog submission (Onboard / Offboard Employee)
2. Capture catalog variables
3. Create Employee Lifecycle record
4. Route request for manager approval
5. Auto-generate departmental tasks
6. Monitor task completion
7. Update lifecycle status and close the request

Logical Flow Diagram:

```
[ Catalog Submission ]  
|  
v  
[ Get Catalog Variables ]  
|  
v  
[ Create u_employee_lifecycle Record ]  
|  
v
```

[Manager Approval]

|

Approved?

/ \

Yes No

| |

v v

[Create Department Tasks] [Close Request]

|

v

[Wait for Task Completion]

|

v

[Update Status & Close RITM]

Workflow Studio

On or Off Boarding Flow

Flow • Global

×

+

On or Off Boarding Flow

Inactive

View:

Test

Edit flow

⋮

TRIGGER

Service Catalog

ACTIONS

1 Get Catalog Variables from on or off Boarding

2 If if Req Type On Bording

3 then Create Employee Lifecycle Record

4 Ask For Approval on Requested Item

5 If if Approve

6 then Send Email

7 Create Catalog Task Task

8 Create Catalog Task Task

9 Create Catalog Task Task

10 Wait For Catalog Task Condition where (State is Closed Complete)

11 Update Employee Lifecycle Record

12 Send Email

13 End Flow

14 Else If if Rejected

15 then Update Requested Item Record

16 Send Email

17 End Flow

Add an Action, Flow Logic, or Subflow

Data

Collapse All

Flow Variables

Trigger - Service Catalog

Requested Item Record

Record

Run Start Time UTC

Date/Time

Table Name

Table Name

Run Start Date/Time

Date/Time

1 - Get Catalog Variables

employee_name

String

employee_id

String

variables

Choice

joining_date

Date

request_time

Choice

Data

Collapse All

requested_for

Reference

department

Reference

managers

Reference

2 - If

3 - Create Record

Employee Lifecycle Record

Record

Employee Lifecycle Table

Table

Action Status

Object

4 - Ask For Approval

Approval State

Choice

Action Status

Object

14 - Else If

15 - Update Record

Requested Item Record

Record

Requested Item Table

Table

Action Status

Object

16 - Send Email

email

Record

Action Status

Object

17 - End Flow

ERROR HANDLER

If an error occurs in your flow, the actions you add here will run.

Read-only

Status: Published

Application: Global

Catalog Variable	Target Table Field	Mapping Method
Employee ID	u_employee_id	Flow Designer – Create Record
Request Type	u_request_type	Flow Designer – Create Record
Department	u_department	Reference mapping
Joining Date	u_joining_date	Date mapping
Exit Date	u_exit_date	Date mapping
Manager	u_manager	Reference mapping
Assets	u_assets	Multi-select mapping
Access Details	u_access_details	Text mapping

The screenshot shows the ServiceNow Catalog Builder interface. The top navigation bar includes 'servicenow', 'All', 'Favorites', 'History', and a search bar. The main header is 'Catalog Item - on or off Boarding'. Below this, there are tabs for 'Variables (9)', 'Variable Sets', 'Catalog UI Policies (2)', 'Catalog Client Scripts', 'Available For', 'Not Available For', 'Categories (1)', 'Catalogs (1)', 'Catalog Data Lookup Definitions', and 'Related Articles'. The 'Variables (9)' tab is active, showing a list of catalog items. The list has columns for 'Type', 'Question', and 'Order'. The items are as follows:

Type	Question	Order
Single Line Text	Employee name	310
Single Line Text	Employee ID	320
Multiple Choice	Variables	330
Multiple Choice	Request Type	340
Reference	Requested For	350
Reference	Department	360
Reference	Managers	370
Date	Joining Date	400
Date	Exit Date	500

The interface also includes a search bar, a 'New' button, and a pagination bar at the bottom showing '1 to 9 of 9'.

All mappings are handled using **Get Catalog Variables** and **Create / Update Record** actions in Flow Designer.

4 Custom Table Schema

Table Name: u_employee_lifecycle

Purpose: Central repository for onboarding and offboarding lifecycle data

Field Name	Type	Description
u_employee_id	String	Employee unique identifier
u_employee_name	Reference (sys_user)	Employee reference
u_department	Reference (cmn_department)	Department
u_manager	Reference (sys_user)	Reporting manager
u_request_type	Choice	Onboarding / Offboarding
u_joining_date	Date	Onboarding date
u_exit_date	Date	Offboarding date
u_status	Choice	Lifecycle status
u_ritm	Reference (sc_req_item)	Linked request item

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](#)

* Label Employee Lifecycle Application Global

* Name u_employee_lifecycle

Columns Controls Application Access

Table Columns for text Search 1 to 15 of 15 New

Column label	Type	Reference	Max length	Default value	Display
Exit Date	Date	(empty)	40	40	false
Created by	String	(empty)	40	40	false
Department	Reference	Department	32	32	false
RITM	Reference	Requested Item	32	32	false

Created	Date/Time	(empty)	40	40	false
Sys ID	Sys ID (GUID)	(empty)	32	32	false
Updated by	String	(empty)	40	40	false
Employee ID	String	(empty)	40	40	false
Updates	Integer	(empty)	40	40	false
Request type	Choice	(empty)	40	40	false
Manager	Reference	User	32	32	false
Joining date	Date	(empty)	40	40	false
Updated	Date/Time	(empty)	40	40	false
Requested for	Reference	User	32	32	false
Status	Choice	(empty)	40	40	false
Insert a new row...					

Delete Update Delete All Records

Related Links

- Form Builder
- Design Form
- Layout Form
- Layout List
- Show Form
- Show List
- Show Schema Map
- Add to Service Catalog
- Run Point Scan
- Explore REST API

Access Controls (4) Security Data Filters Labels (1) Database Indexes (5) Table Subscription Configuration (1)

Name Search Actions on selected rows...

Name	Decision Type	Operation	Type	Active	Updated by	Updated
u_employee_lifecycle	Allow If	read	record	true	admin	2025-12-26 21:54:19
u_employee_lifecycle	Allow If	delete	record	true	admin	2025-12-26 21:54:19
u_employee_lifecycle	Allow If	write	record	true	admin	2025-12-26 21:54:19
u_employee_lifecycle	Allow If	create	record	true	admin	2025-12-26 21:54:19

5 Approval Routing Conditions

Approval logic is implemented within Flow Designer using dynamic conditions:

- Approver is derived from the **Manager** catalog variable
- Approval is mandatory for both onboarding and offboarding
- Flow execution pauses until the approval outcome is received

Approval Conditions:

- If Approved → Continue task creation

The screenshot shows the ServiceNow Workflow Studio interface for a flow named 'On or Off Boarding Flow'. The flow is currently 'Inactive'. The main canvas displays a step labeled '5' with an 'If' condition. The condition is labeled '4 - Ask For Approval > Approval State' and has a single condition: '4 - Ask For Ap... > Approval St...' with a value of 'Approved'. Below the condition, there are three 'then' actions: 'Send Email', 'Create Catalog Task Task', and 'Create Catalog Task Task'. A 'Data' panel on the right shows the flow's data structure, including 'Approval State' (Choice) and 'Action Status' (Object). The flow steps are numbered 5 through 13, ending with 'End Flow'.

The screenshot shows the ServiceNow Catalog UI Policy Action configuration page for the 'joining_date' variable. The configuration is for the 'on or off Boarding' catalog item, with an application of 'Global'. The variable name is 'joining_date' and its order is 100. The configuration includes several settings: 'Mandatory' is set to 'Leave alone', 'Visible' is set to 'True', 'Read only' is set to 'Leave alone', 'Value action' is set to 'Leave alone', and 'Field message type' is set to 'None'. The 'Update' and 'Delete' buttons are visible at the bottom.

- If Rejected → Update lifecycle status to Rejected and close the request

The image shows two screenshots from the ServiceNow interface. The top screenshot is from the Workflow Studio, showing an 'On or Off Boarding Flow' with an 'Else If' condition. The condition is labeled 'if Rejected' and has two conditions: '4 - Ask For Approval > Approval State' with a value of 'Rejected', and '4 - Ask For Approval > Approval State' with a value of 'Cancelled'. The flow continues to step 15, 'then Update Requested Item Record'. The bottom screenshot is from the Catalog UI Policy configuration page for 'Show exit Date for Offboarding'. It shows the policy is active and applies to 'A Catalog Item'. The 'When to Apply' tab is selected, showing conditions: 'request_type' is 'Offboarding'. The 'Applies on a Catalog Item view' checkbox is checked, and the 'Applies on Catalog Tasks' checkbox is unchecked. A note states: 'Catalog UI policy actions are applied only if all the following conditions are met: 1. The catalog UI policy is Active, 2. The items in the Conditions field evaluate to true, 3. The field specified in the catalog UI policy is present on the specified catalog item'. A tooltip explains: 'Apply the catalog UI policy actions when the form is loaded or when the user changes values on the form'.

6 SLA Configuration

SLAs are configured on **sc_task** records to ensure timely execution by departments.

Department	SLA Target	Trigger Condition
IT	Before Joining / Exit Date	Task created

Facilities	Before Joining / Exit Date	Task created
Security	On Joining / Exit Date	Task created

SLAs are automatically monitored and reported to track performance and bottlenecks.

The screenshot shows the ServiceNow interface for configuring a Catalog UI Policy. The title bar indicates the policy is 'Catalog UI Policy - Show Joining Date for Onboarding'. The main configuration area includes:

- Applies to:** A Catalog Item (selected)
- Application:** Global
- * Catalog item:** on or off Boarding
- * Short description:** Show Joining Date for Onboarding
- Active:** ☒

Below the configuration fields, there is a 'When to Apply' tab and a 'Script' tab. The 'When to Apply' tab is active, showing a list of conditions that must be met for the policy to apply:

- The catalog UI policy is **Active**
- The items in the **Conditions** field evaluate to true
- The field specified in the catalog UI policy is present on the specified catalog item

The 'Catalog Conditions' section shows a single condition: 'request_type' is 'Onboarding'. There are buttons for 'Add Filter Condition' and 'Add OR Clause'.

The screenshot shows the ServiceNow interface for configuring a Catalog UI Policy. The title bar indicates the policy is 'Catalog UI Policy - Show exit Date for Offboarding'. The main configuration area includes:

- Applies to:** A Catalog Item (selected)
- Application:** Global
- * Catalog item:** on or off Boarding
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- The catalog UI policy is **Active**
- The items in the **Conditions** field evaluate to true
- The field specified in the catalog UI policy is present on the specified catalog item

The 'Catalog Conditions' section shows a single condition: 'request_type' is 'Offboarding'. There are buttons for 'Add Filter Condition' and 'Add OR Clause'.

At the bottom, there are checkboxes for 'Applies on a Catalog Item view' (checked) and 'Applies on Catalog Tasks' (unchecked). A note states: 'Apply the catalog UI policy actions when the form is loaded or when the user changes values on the form'.

7 Technical Outcomes

- Fully no-code automation using Flow Designer

- Clean separation between data, logic, and UI
 - Scalable table design for future enhancements
 - SLA-driven execution and accountability
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