

# Cognizant Digital Nurture 3.0

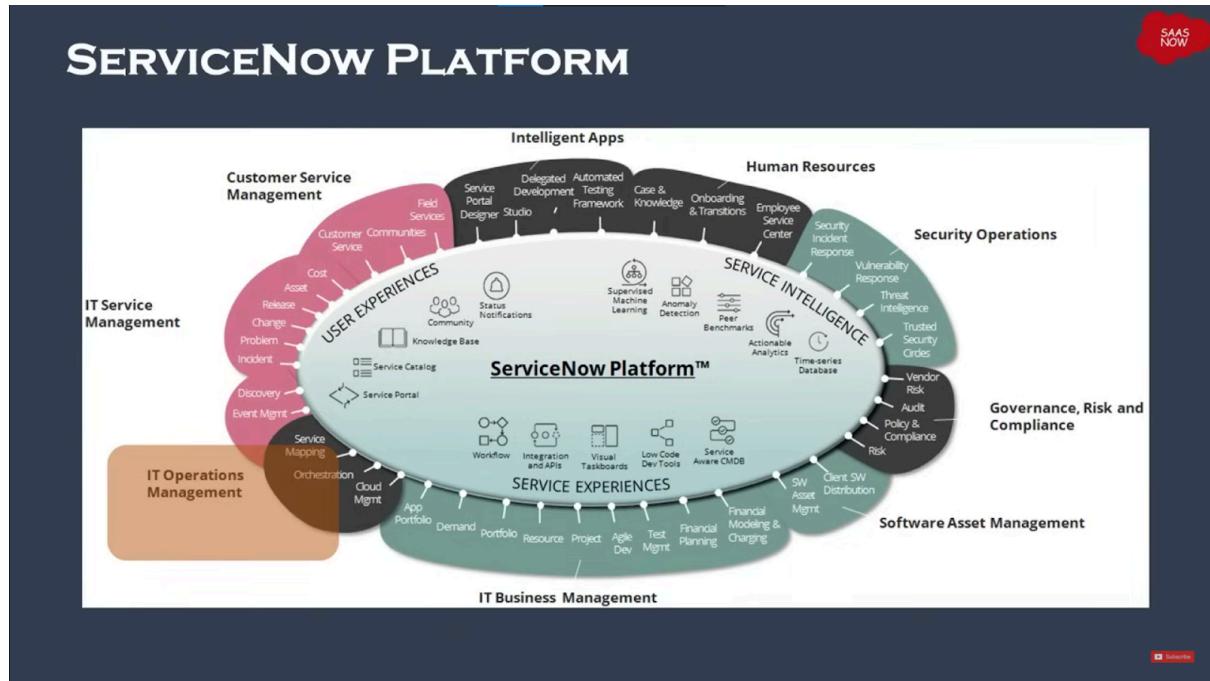
## Week 2

### **1. ServiceNow Admin Full Course | Learn ServiceNow Administration**

#### **Topics Covered:**

1. Platform Overview and Architecture
2. User Interface and Branding
3. List & Filters and Forms
4. Task Management
5. Notifications
6. Knowledge Management
7. Service Catalogue
8. Tables and Fields
9. Access Control List
10. Data Import
11. CMDB
12. Integration
13. Update Sets
14. Events
15. Platform Stats

## Platform Overview and Architecture



ServiceNow is a cloud-based platform designed to automate and manage IT services and business operations. It provides a wide range of functionalities through a single platform, including IT Service Management (ITSM), IT Operations Management (ITOM), IT Business Management (ITBM), and more. ServiceNow is built to be flexible, scalable, and customizable to meet the needs of various organisations.

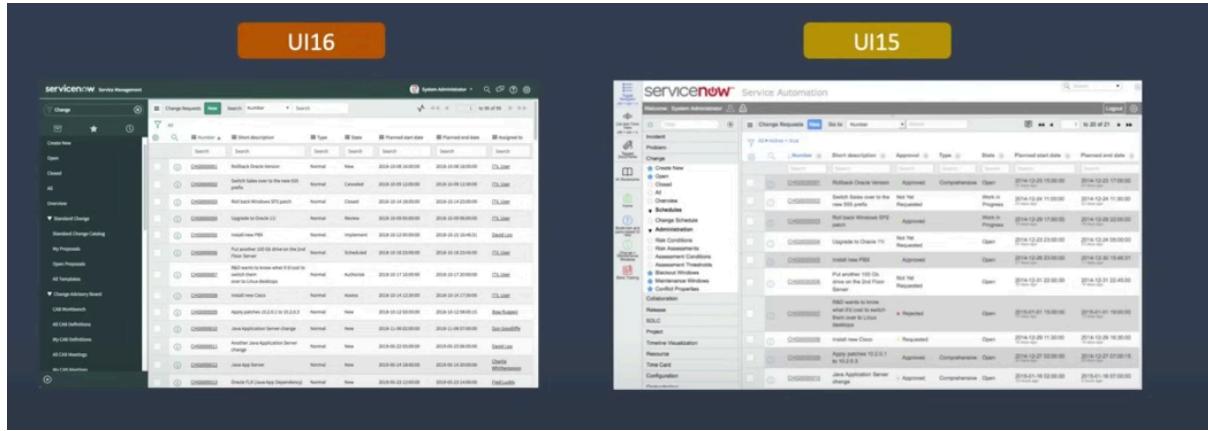
ServiceNow's architecture is a blend of cloud-based infrastructure, modular applications, a robust data model, and extensive integration capabilities. This combination enables organisations to manage and automate a wide range of IT and business processes, all within a secure, scalable environment.

### User Interface and Branding

ServiceNow provides a flexible and customizable user interface (UI) that allows organizations to tailor the platform to their specific needs and brand identity. Below is an overview of the key aspects of UI and branding in ServiceNow.

ServiceNow has 2 UI versions

1. UI16
2. UI15



## ServiceNow UI Elements

### 1. Application Navigator:

**Search Bar:** Allows users to search for applications, modules, and settings.

**Favourites:** Users can bookmark frequently accessed items.

**Filter Navigator:** Used to filter applications and modules based on specific criteria.

### 2. Content Frame

**Forms:** Display individual records, such as incident details or user profiles, allowing for data input and editing.

**Lists:** Display multiple records in a tabular format, enabling actions like sorting, filtering, and inline editing.

**Dashboards:** Provide visual representations of data through widgets and charts.

### 3. Banner Frame

**Logo:** Displays the organization's logo (can be customized).

**Global Search:** Allows users to search across multiple tables and records.

**User Menu:** Provides access to user settings, profile, and logout options.

**System Settings:** Allows users to adjust UI settings like theme, language, and accessibility features.

ServiceNow's user interface and branding capabilities enable organizations to create a visually appealing and user-friendly experience that aligns with their brand identity. From simple theme adjustments to complex UI customizations, ServiceNow offers the tools needed to tailor the platform to specific business needs and enhance user engagement.

## List & Filters and Forms

The screenshot shows a ServiceNow list view for 'Incidents' with the following details:

- Header:** Incidents, New, Search, Number, Search button.
- Filter:** All > Active = true.
- Columns:** Number, Vendor Ticket, Opened, Short description, Caller, Priority, State, Category, Assignment group, Assigned to, Updated, Updated by, Correlation ID.
- Data:** A grid of 257 rows, each representing an incident record. The first few rows include:
  - INC1234: Opened 2020-04-14, Short description 'Test Short Description with Ebonding', Caller '(empty)', Priority 5 - Planning, State New, Category Inquiry / Help, Assignment group '(empty)', Assigned to '(empty)', Updated 2020-04-14 05:36:59, Updated by admin, Correlation ID cb90e641db5c10101d94f26b6896196.
  - INC0010231: Opened 2020-04-24 21:48:43, Short description 'TEST 3', Caller '(empty)', Priority 4 - Low, State New, Category Inquiry / Help, Assignment group Database, Assigned to '(empty)', Updated 2020-04-24 21:48:53, Updated by admin, Correlation ID 1ddd7455edb053101d94f26b6896196.
- Buttons:** Full screen, search bar, navigation icons (back, forward, search).
- Footer:** Progress bar (50:55 / 7:34:49), volume icon, settings icon, refresh icon, maximize icon, close icon.

### **Lists:**

Lists in ServiceNow are used to display multiple records from a table in a grid or table format. They are a primary way users view and interact with data.

#### List Elements:

Column, Headers, Rows, Action Menu

### **Filters:**

Filters are used to display a subset of records that meet specific criteria. They allow users to focus on the most relevant data.

### **Forms:**

Forms are used to create, view, or edit individual records in a table. They provide a detailed view of all the fields associated with a record.

Form Elements: Content Frame, Form Title, Form Menu, UI Actions

The screenshot shows a ServiceNow problem record interface. At the top, there's a navigation bar with tabs: New, Assess, Root Cause Analysis, Fix in Progress, Resolved, and Closed. Below the tabs, the record details are displayed:

- Number:** PRB0007601
- First reported by:** [empty field]
- Category:** Software
- Subcategory:** Email
- Business service:** [empty field]
- Configuration item:** Email
- \* Problem statement:** Unable to send or receive emails.
- Description:** Unable to send or receive emails. Looks like issue is with the email server.

On the right side, there are status fields:

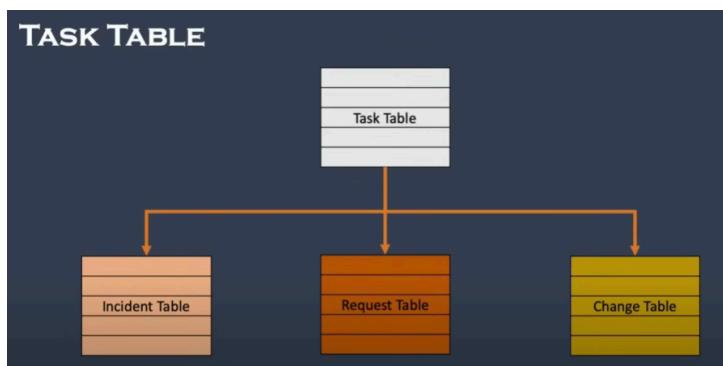
- State:** New
- Impact:** 3 - Low
- Urgency:** 3 - Low
- Priority:** 5 - Planning
- Assignment group:** Problem Coordinator A
- Assigned to:** Problem Coordinator A

At the bottom, there are tabs for Notes, Analysis Information, Resolution Information, and Other Information. The Notes tab is selected, showing a "Work notes list" button and a "Work notes" section which is currently empty.

Lists & Filters in ServiceNow provide users with powerful tools to view and manage large sets of records, with capabilities to sort, filter, group, and customise how data is displayed. Forms offer a detailed interface for interacting with individual records, supporting a wide range of field types, layout options, and client-side logic to ensure that data entry is accurate and efficient. Together, these components are central to how users interact with data in ServiceNow, making them highly customizable and integral to workflows.

## **Task Management**

Task Management is a core feature in ServiceNow that allows organizations to manage and track various tasks across different business processes, such as IT service management, project management, and customer service. Tasks in ServiceNow are records that represent work that needs to be done and can include incidents, problems, change requests, and more.



## Key Components of Task Management:

### 1. Task Table

- **Description:** The Task table (**task** table) is the base table for all task-related records in ServiceNow. Various task-specific tables (e.g., Incident, Problem, Change) extend from this base table, inheriting common task properties.
- **Common Fields:**
  - **Number:** A unique identifier for the task.
  - **Short Description:** A brief summary of the task.
  - **Priority:** Indicates the importance and urgency of the task.
  - **State:** Tracks the current status of the task (e.g., New, In Progress, Resolved, Closed).
  - **Assignment Group:** The team responsible for completing the task.
  - **Assigned To:** The individual assigned to the task.
  - **Due Date:** The deadline for task completion.
  - **Work Notes:** A log of notes and updates about the task's progress.

### Task Assignment

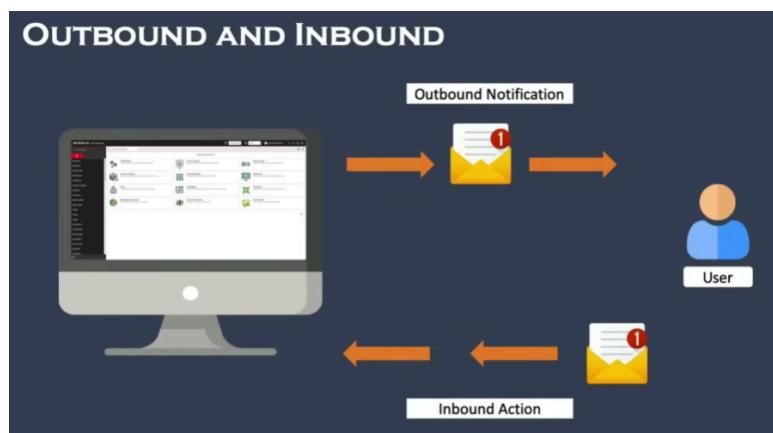
- **Automatic Assignment:** Tasks can be automatically assigned based on predefined rules, such as the assignment group or the skills required for the task. This is often done using **Assignment Rules** or **Workflows**.

- **Manual Assignment:** Users can manually assign tasks to themselves or other team members using the "Assigned To" field.

Task management in ServiceNow is a robust system that allows organizations to efficiently track, prioritize, assign, and complete tasks across various departments and processes. By leveraging automation, workflows, and integration with other modules, ServiceNow ensures that tasks are managed effectively, improving overall productivity and service delivery.

## **Notifications**

Notifications in ServiceNow are essential for keeping users informed about important events, updates, and actions that require their attention. These notifications can be sent via different channels, including email, SMS, and within the platform itself. ServiceNow provides a highly customizable notification system that allows administrators to tailor alerts to specific business needs.



## **Notification Types**

- **Email Notifications:** The most common type, sent to users' email addresses. These can include rich text, links, and even attachments.
- **SMS Notifications:** Text messages sent to users' mobile devices. Useful for urgent alerts that require immediate attention.
- **Push Notifications:** Sent to the ServiceNow mobile app, allowing users to receive alerts directly on their smartphones or tablets.

- **In-Platform Notifications:** Displayed within the ServiceNow interface, typically in the notification center. These are useful for non-critical updates that don't require email or SMS.

**NOTIFICATION FORM**

The screenshot shows the 'Notification' form in ServiceNow. At the top, there's a header with the title 'NOTIFICATION FORM'. Below it, a sub-header says 'New record Legacy view'. The main area has several sections: 'Name' (set to 'None'), 'Category' (set to 'Unassigned'), 'Application' (set to 'Global' with 'Active' checked), and 'Allow Digital' (unchecked). A large section below is titled 'When to send' with 'Who will receive' and 'What will trigger'. It lists three conditions: 'A record is inserted or Updated into the Table specified above', 'A record is deleted from the Table specified above', and 'Via a Flow Action'. There are dropdowns for 'Send when' (set to 'Record inserted or updated') and 'Conditions' (with buttons for 'Add Filter Condition' and 'Add "OR" Clause'). At the bottom are 'Submit' and 'Cancel' buttons.

**INBOUND EMAIL ACTION FORM**

The screenshot shows the 'Inbound Email Action' form in ServiceNow. At the top, it says 'Inbound email actions specify how ServiceNow creates or updates task records in a table when the instance receives an email'. It includes fields for 'Name', 'Target table' (set to 'None'), 'Action type' (set to 'Record Action'), 'Application' (set to 'Global' with 'Active' checked), and 'Stop processing' (unchecked). A section titled 'When to run' has tabs for 'Actions' and 'Description'. It shows 'Only emails of the selected Type will trigger this inbound action' (set to 'New') and 'Only emails from service with the Required role will trigger this inbound action'. Another section shows 'Order determines when he runs relative to other inbound actions. The inbound action with the lowest order runs first' and 'Only emails from this sender will trigger this inbound action'. At the bottom, it says 'All of the following conditions must be true, to trigger this inbound action' with a 'Conditions' section containing 'Add Filter Condition' and 'Add "OR" Clause' buttons. There are 'Submit' and 'Cancel' buttons at the bottom.

## Notification Triggers

- **Record-based Notifications:** Triggered by specific actions on a record, such as creation, update, or deletion. For example, an incident being assigned to a user could trigger an email notification.
- **Event-based Notifications:** These are triggered by custom events that can be defined within ServiceNow. For instance, an SLA breach event could trigger a notification to the relevant stakeholders.
- **Scheduled Notifications:** These notifications are sent at predetermined times or intervals, such as a daily summary of outstanding tasks.

## Configuring Notifications

- **Notification Definition:**
  - **Name:** The unique name for the notification.
  - **Table:** The table to which the notification is related (e.g., Incident, Change Request).
  - **When to Send:** Defines the trigger for the notification (e.g., when a record is inserted, updated, or deleted).

- **Conditions:** Specify conditions that must be met for the notification to be sent (e.g., only send if the priority is "High").
- **Recipients:**
  - **Users and Groups:** Notifications can be sent to individual users, user groups, or roles.
  - **Dynamic Recipients:** Use fields from the record to dynamically determine recipients (e.g., Assigned To field).
  - **Notification Filters:** Allows filtering of recipients based on specific criteria, ensuring that only relevant users receive the notification.
- **Message Content:**
  - **Subject:** The subject line of the notification, often including dynamic fields like the record number.
  - **Message Body:** The main content of the notification, which can include plain text, HTML, and dynamic variables that pull in data from the record (e.g., short description, state).
  - **Templates:** Reusable content blocks that can be applied to multiple notifications to ensure consistency.

## Advanced Notification Features

- **Templates:** ServiceNow allows the use of templates for consistent formatting and content across multiple notifications. Templates can include headers, footers, and common messaging elements.
- **Escalations:** Notifications can be escalated to higher-level users if a task is not completed within a certain timeframe. This is often used in conjunction with SLAs.
- **Digest Notifications:** Instead of sending multiple notifications for similar events, a digest notification compiles them into a single message. This reduces inbox clutter and helps users manage their notifications more effectively.
- **Notification Preferences:** Users can set their preferences for receiving notifications, including opting in or out of certain types of notifications, choosing preferred channels, and setting frequency.

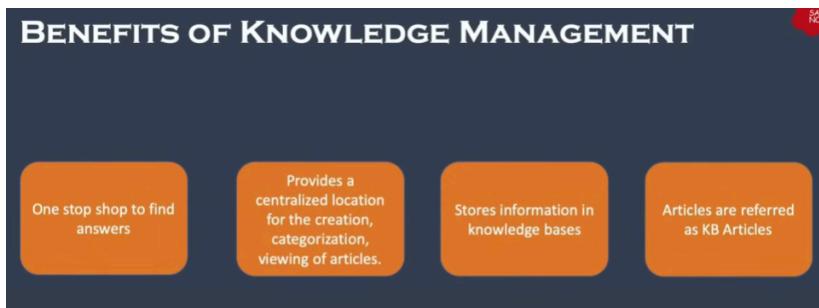
## Notification Administration

- **Notification Log:** Administrators can view the history of sent notifications to track which messages were delivered, opened, or failed.

- **Notification Scripts:** Advanced scripting can be used to customize notifications further, allowing dynamic content, conditional logic, and integration with external systems.
- **Test Notifications:** Before deploying, administrators can test notifications to ensure they work as expected. This feature allows testing with specific records and users.

## Knowledge Management

A knowledge article is a record in a knowledge base that provides information to users. A knowledge articles can be a policy, self-help tips, troubleshooting and resolution steps.



**BENEFITS OF KNOWLEDGE MANAGEMENT**

- One stop shop to find answers
- Provides a centralized location for the creation, categorization, viewing of articles.
- Stores information in knowledge bases
- Articles are referred as KB Articles

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**Knowledge Bases**

IT 3 Questions and 32 Articles	Knowledge 0 Articles	Security Incident 448 Articles	Security Incident Response Ru... 0 Articles
Social QA 0 Questions and 0 Articles			

**Featured Content**

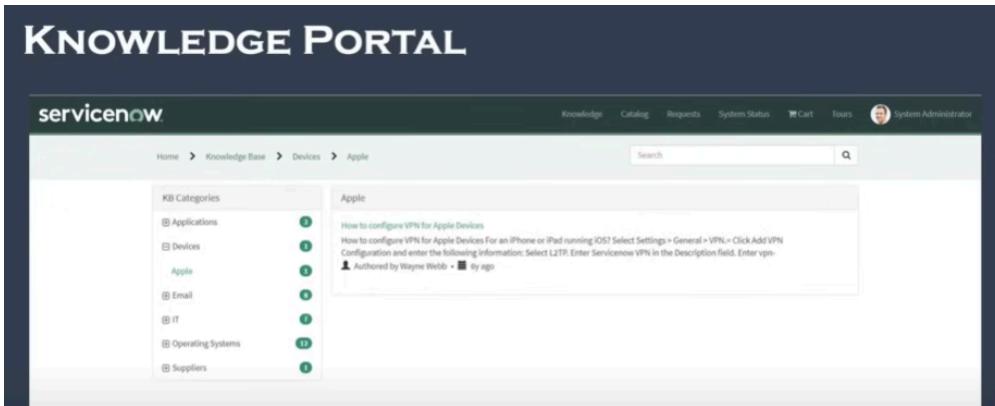
Email interruption Tonight at 11:00 PM Eastern

**Most Useful**

Sales Force Automation is DOWN

**Most Viewed**

Sales Force Automation is DOWN



**KNOWLEDGE PORTAL**

servicenow.

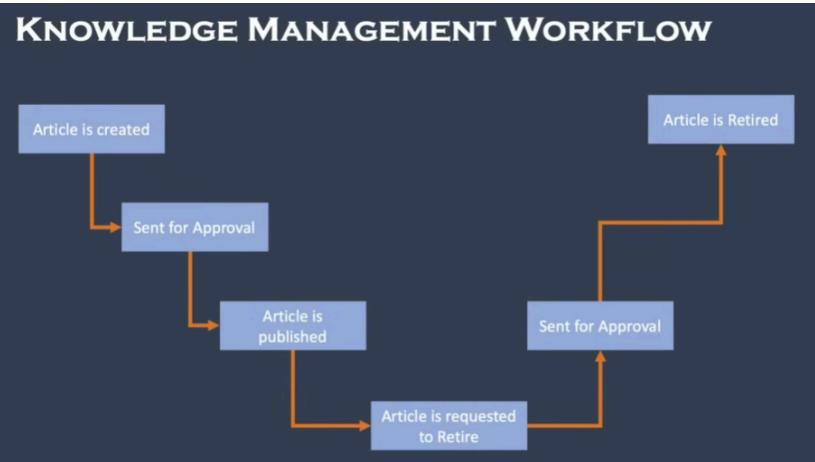
Home > Knowledge Base > Devices > Apple

KB Categories

- Applications
- Devices
- Apple
- Email
- IT
- Operating Systems
- Suppliers

Apple

How to configure VPN for Apple Devices  
How to configure VPN for Apple Devices For an iPhone or iPad running iOS? Select Settings > General > VPN. Click Add VPN Configuration and enter the following information: Select L2TP. Enter Servicenow VPN in the Description field. Enter vpn-  
Authorised by Wayne Webb • 3 days ago



## Knowledge Workflow

Published   Checked Out   Help   [New Workflow](#)

All > Published = true > Table = kb\_knowledge

Name	Table	Updated by	Updated	Published	Application
Search	#kb_knowledge	Search	Search	=true	Search
Knowledge - Instant Publish	Knowledge [kb_knowledge]	admin	2014-11-05 01:52:29	true	Global
Knowledge - Approval Publish	Knowledge [kb_knowledge]	admin	2019-03-08 01:45:36	true	Global
Knowledge - Instant Retire	Knowledge [kb_knowledge]	admin	2014-11-05 01:52:15	true	Global
Knowledge - Approval Retire	Knowledge [kb_knowledge]	admin	2015-06-12 02:34:22	true	Global

1 to 4 of 4

## Service Catalog

The Service Catalog in ServiceNow is a user-friendly interface that allows users to request services, products, and information from different departments within an organization. It acts as a storefront where users can browse and request items, much like an online shopping experience. The Service Catalog is integral to ServiceNow's IT Service Management (ITSM) and other enterprise workflows, making it easier for organizations to standardize service delivery and improve user satisfaction.

The screenshot shows a Service Catalog interface with a dark header bar containing a search bar and a '+' icon. Below the header, there are several sections: 'Services' (with a wrench icon), 'Hardware' (with a computer monitor and smartphone icon), 'Software' (with a computer monitor icon), 'Desktops' (with a desktop computer icon), 'Mobiles' (with a smartphone icon), and 'Peripherals' (with a keyboard and mouse icon). A sidebar on the right lists 'Top Requests' (Access, Standard Laptop, Apple iPad 3, Cisco Jabber 10.5, Samsung Galaxy S7 Edge) and a 'Shopping Cart' (Empty).

## BENEFITS OF SERVICE CATALOG

One stop shop to request different services provided by all the departments of Organization

Categorized items help users to request the right Service

Multiple Catalogs can be created

## SERVICE CATALOG - CATALOG ITEMS

The screenshot shows a 'Service Catalog - Hardware' page. It features a search bar and a list of items under 'Developer Laptop (Mac)'. One item, 'MacBook Pro', is highlighted with a large image of the laptop and its specifications: Intel Core i7 processor, 15.4in Retina display, 1TB SSD-based flash storage, 16GB RAM, and a backlit keyboard.

## SERVICE CATALOG ROLES



## SERVICE CATALOG COMPONENTS

Order

Item

Order Guide

Record Producer

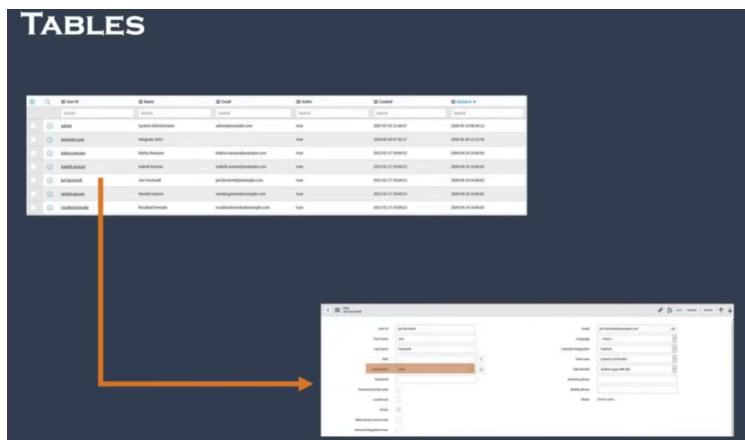
## Types of Catalog Items:

- Standard Items:** Simple items with straightforward requests, such as ordering a new laptop.
- Record Producers:** Create records in a table (e.g., incident, change request) based on user input. This is useful for initiating processes like incident reporting.

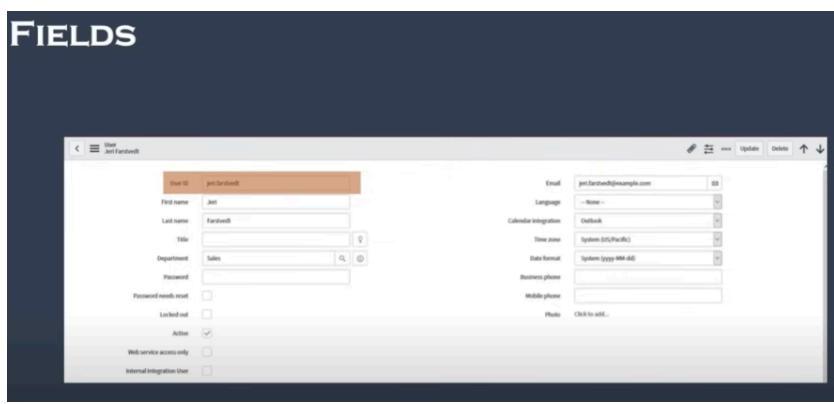
- **Order Guides:** A collection of related catalog items that can be requested together. For example, onboarding a new employee might include ordering a laptop, phone, and software licenses.
- **Content Items:** Static informational pages within the catalog, such as instructions or FAQs.

## Tables and Fields

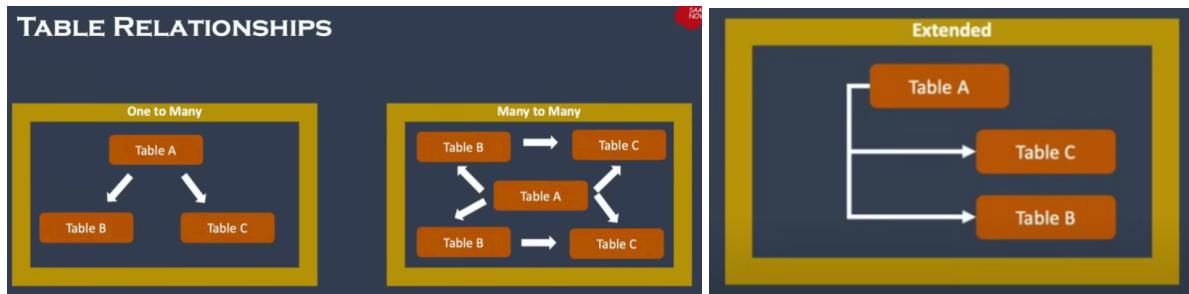
Tables: A table in ServiceNow is a database object that stores data in rows (records) and columns (fields). Each table represents a specific type of data, such as incidents, users, or change requests.



Fields: Fields are the individual data points stored in a table. Each field in a table corresponds to a column in the database, and each row in the table corresponds to a record.



## Table Relationships

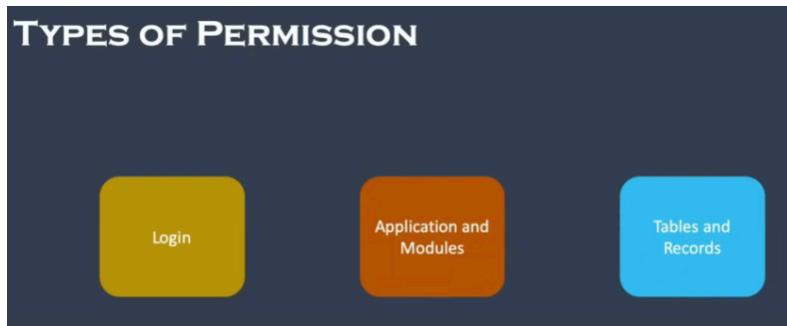


## TYPES OF TABLES

- Base Tables
- Extended Tables
- Core Tables
- Custom Tables

## Access Control List

An Access Control Rule (ACL rule) defines the security restrictions for a specific object in ServiceNow, such as a table, field, or record. ACL rules determine who can access what data and what actions they can perform.

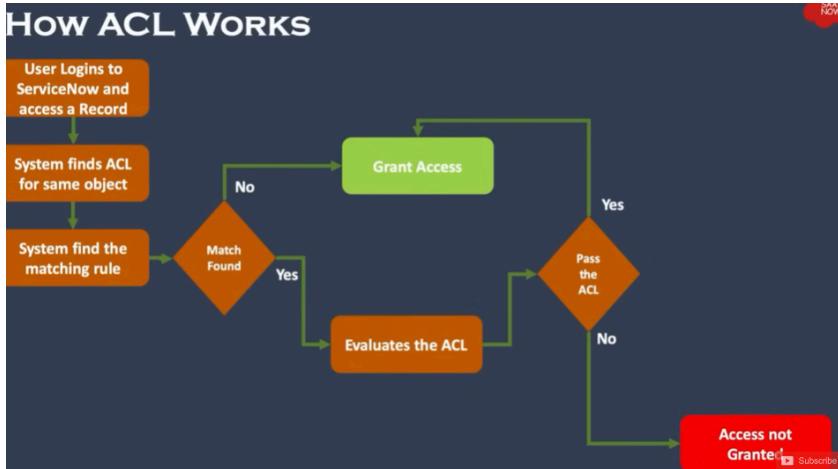


**Actions:** ACL rules specify actions such as **read**, **write**, **create**, and **delete**. These actions dictate what users can do with the data:

- **Read:** Allows users to view the data.
- **Write:** Allows users to edit existing data.
- **Create:** Allows users to add new records.
- **Delete:** Allows users to remove records.

## ACL FORM AND FIELDS

The screenshot shows the ServiceNow ACL Form interface. At the top, there are dropdown menus for 'Name/Object being secured' (set to 'Record') and 'Definition' (set to 'Table'). Below these are sections for 'Access rules' and 'Audit rules'. The 'Access rules' section contains a table with columns for 'Rule ID', 'Condition', 'Action', and 'Order'. One row is visible with 'Condition' set to 'User has role' and 'Action' set to 'Grant access'.



## Evaluation of ACLs

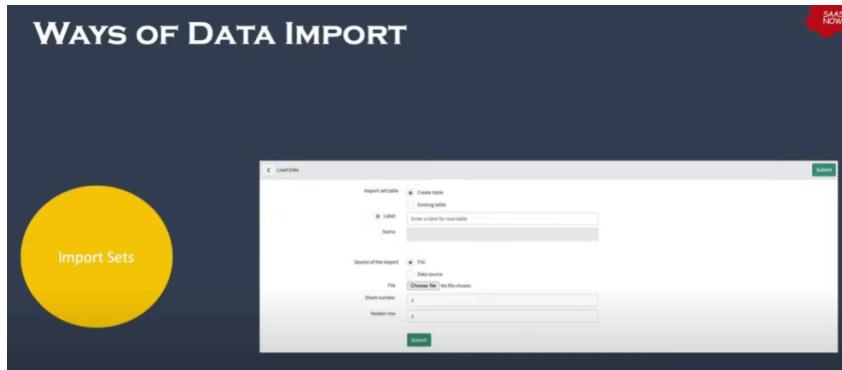
- **Order of Evaluation:** ServiceNow evaluates ACL rules in a specific order:
  1. **Field-Level Rules:** Evaluated first. If no field-level rule exists, the system moves to the table-level rule.
  2. **Table-Level Rules:** If a field-level rule does not explicitly grant access, the table-level rule is evaluated.
  3. **Default Deny:** If no matching ACL rule grants access, the system denies access by default.
- **Conditions:** ACL rules can include conditions that must be met for the rule to apply. For example, a rule might grant access only if a user belongs to a specific group or if a record is in a certain state.
- **Roles:** ACL rules often reference roles to control access. Users with the specified roles can perform the actions defined in the rule. Roles can be assigned to users, groups, or custom roles created for specific purposes.

## Data Import

A Data Source in ServiceNow defines the origin of the data being imported. It specifies the type of file or system from which the data will be pulled.

### Types of Data Sources:

- **File-Based:** Includes CSV, Excel (XLS), XML, and JSON files.
- **Database:** Data can be imported from an external database via JDBC connections.
- **External Web Services:** Data can be imported via REST or SOAP web services.
- **Direct Input:** Manually entering data into the system, typically for small datasets



### Import Set

- **Definition:** An Import Set is a temporary table where imported data is staged before being transformed into target tables. It allows you to review and manipulate the data before finalizing the import.
- **Import Set Table:** A dynamically generated table created when you load data into an Import Set. Each Data Source has a corresponding Import Set table where its data is stored temporarily.
- **Loading Data:** Data is loaded into the Import Set table either manually or through automated processes (scheduled imports).

## IMPORT SETS COMPONENTS



Data Import in ServiceNow is a powerful tool for bringing external data into the platform. By leveraging Data Sources, Import Sets, and Transform Maps, administrators can efficiently map, transform, and load data into the appropriate tables. Proper planning, testing, and error handling are crucial to ensuring that data imports are successful and that the integrity of the system's data is maintained.

## CMDB(Configuration Management Database)

A Configuration Item (CI) is any component that needs to be managed in order to deliver an IT service. CIs can be hardware, software, network components, documentation, or any other item related to IT services.

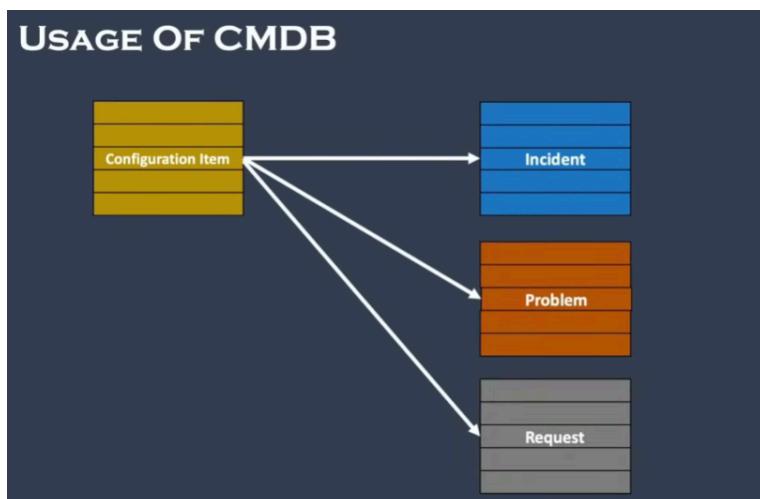
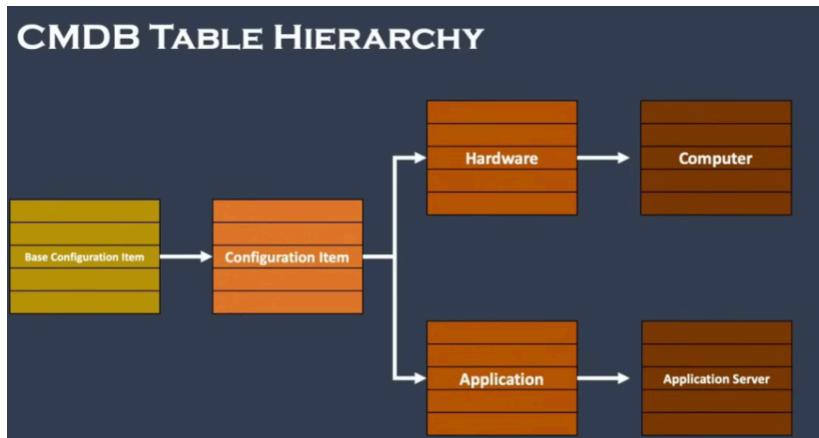
### Types of CIs:

- **Hardware CIs:** Servers, routers, workstations, etc.
- **Software CIs:** Applications, databases, operating systems, etc.
- **Network CIs:** Firewalls, switches, load balancers, etc.
- **Business Services:** End-to-end services provided to the business, like email, ERP systems, etc.
- **Application Services:** Collections of CIs that work together to deliver a particular function, such as a web application stack.

## CMDB Tables

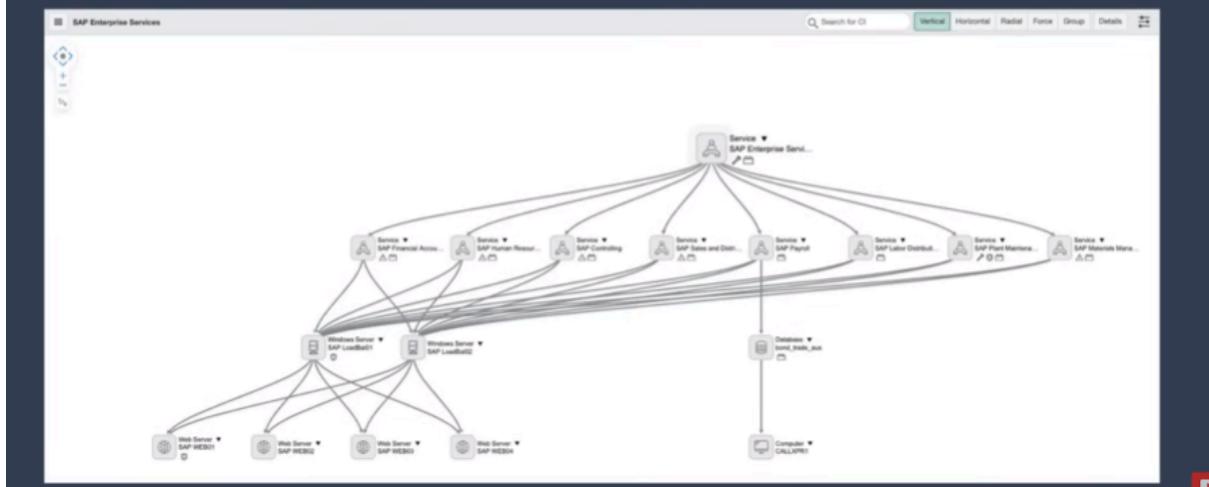
- **Base Configuration Item Table (cmdb\_ci):** This is the core table in the CMDB, from which all other CI tables extend. It contains the basic fields that are common across all CIs.

- **Extended Tables:** Different types of CIs are stored in tables that extend the base cmdb\_ci table. For example, servers might be stored in the cmdb\_ci\_server table, while applications might be stored in the cmdb\_ci\_appl table.
- **Custom Tables:** Administrators can create custom CI tables for specific needs, ensuring that all necessary attributes for custom CIs are captured.



# CI DEPENDENCY VIEW

Dependency view display graphical infrastructure view of a CI and all other CI connect or related to the CI.  
It also indicates if there is some existing issue or alert for a CI.



## Integration

### What is integrated?

- CMDB
- Incident Management
- Problem Management
- Change Management
- User Management
- Login via SSO

### WAYS OF INTEGRATION



WEB SERVICES



LDAP



EXCEL



EMAIL

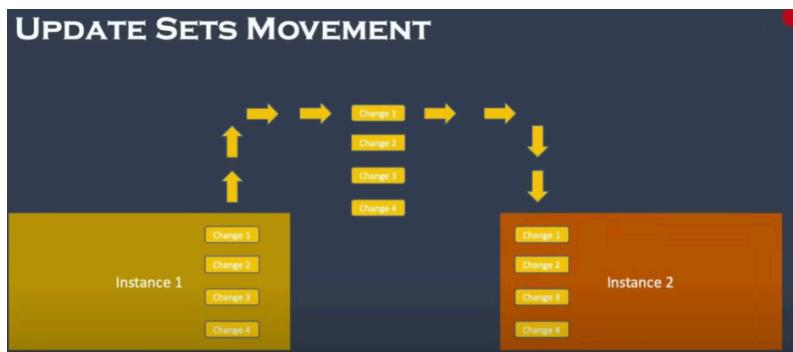
## Integration Hub

IntegrationHub provides a single solution to quickly integrate with third party application to share the data with ServiceNow or other system.

### Update Sets

#### WHAT IS AN UPDATE SET?

An update set is a group of configuration changes that can be moved from one instance to another. This feature allows administrators to group a series of changes into a named set and then move them as a unit to other systems for testing or deployment.

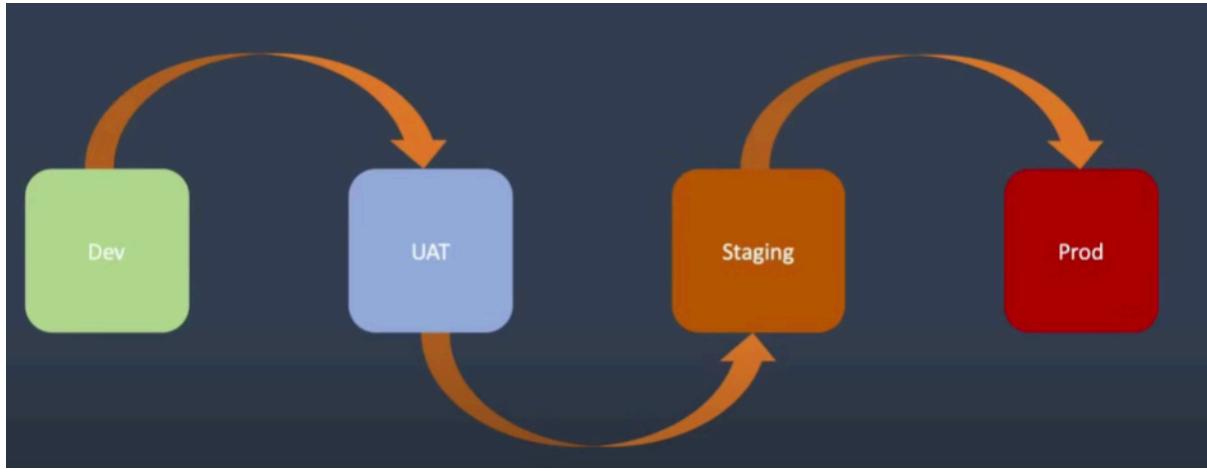


#### WHEN TO USE UPDATE SETS

- Changes you want to keep in every instance
- All the changes which can change the baseline and can give impact
- Changes needs to be tested in Lower instance before moving to Production

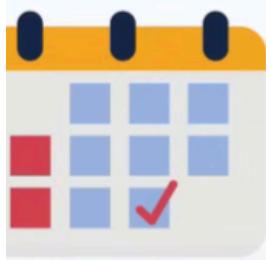
### UPDATE SETS PLANNING PROCESS





## Event

### **Event**



Events are special log records the system generates when something notable has happened or certain conditions occur.

### **Event Actions**

- Sending Notifications
- Action configured in Business Rule
- Action configured in flow
- Run a script action

## Platform Stats

Stats module provides statistics for system activities that affect performance such as the execution of queries, scripts, and transactions.

now All

Favorites History Workspaces

Servlet statistics

Search

Assessments

Assessment Stats

System Diagnostics

Memory Stats

Expression Cache Stats

Stats

Slow Events

Slow Interactions

Slow Mutex Locks

Slow Queries

Slow Scripts

Slow Transactions

Table IOStats

stats

Connected to Cluster node: app128018.phx201.service-now.com:80 at: Sun Apr 24 02:39:41 PDT 2022 ([Refresh](#))

Build name: ServiceNow 2022.04.17-2022\_1811

Build tag: glide-sandiego-12-22-2021\_\_patch1-03-02-2022

Instance name: dev122447001

Instance ID: acdec06d6110910e62f7feb68961965

Node ID: 08302790398c656ba9f6753d3

Instance State: ONLINE

IP address: 10.180.128.18

MID buildstamp: sandiego-12-22-2021\_\_patch1-03-02-2022\_03-17-2022\_1811

Load balancer: Singleton:Online

Database latency: 0

Offering: enterprise

Open Source software

System Run Level

Current Run Level: Fully Operational

Servlet Memory

Max memory: 1980.0

Allocated: 1254.0

In use: 705.0

Free percentage: 44.0

System Statistics

Started: Sat Apr 23 16:15:52 PDT 2022

Cache hits: Sat Apr 23 22:19:59 PDT 2022, flushes: 7

Transactions: 39120

Errors handled: 19

Primary database connections: 1362

Cancelled transactions: 5

Logged in sessions: 1 (3 active)

Maximum session concurrency: 27

Session timeout: 90 minutes

CometD sessions: 1

Java security manager policy: Enabled

Semaphore Sets

Default

Available semaphores: 16

Queue depth: 0

Queue age: 0:00:00.000

Max queue depth: 4

Queue depth limit: 150

Maximum transaction concurrency: 16

Maximum concurrency achieved: 1