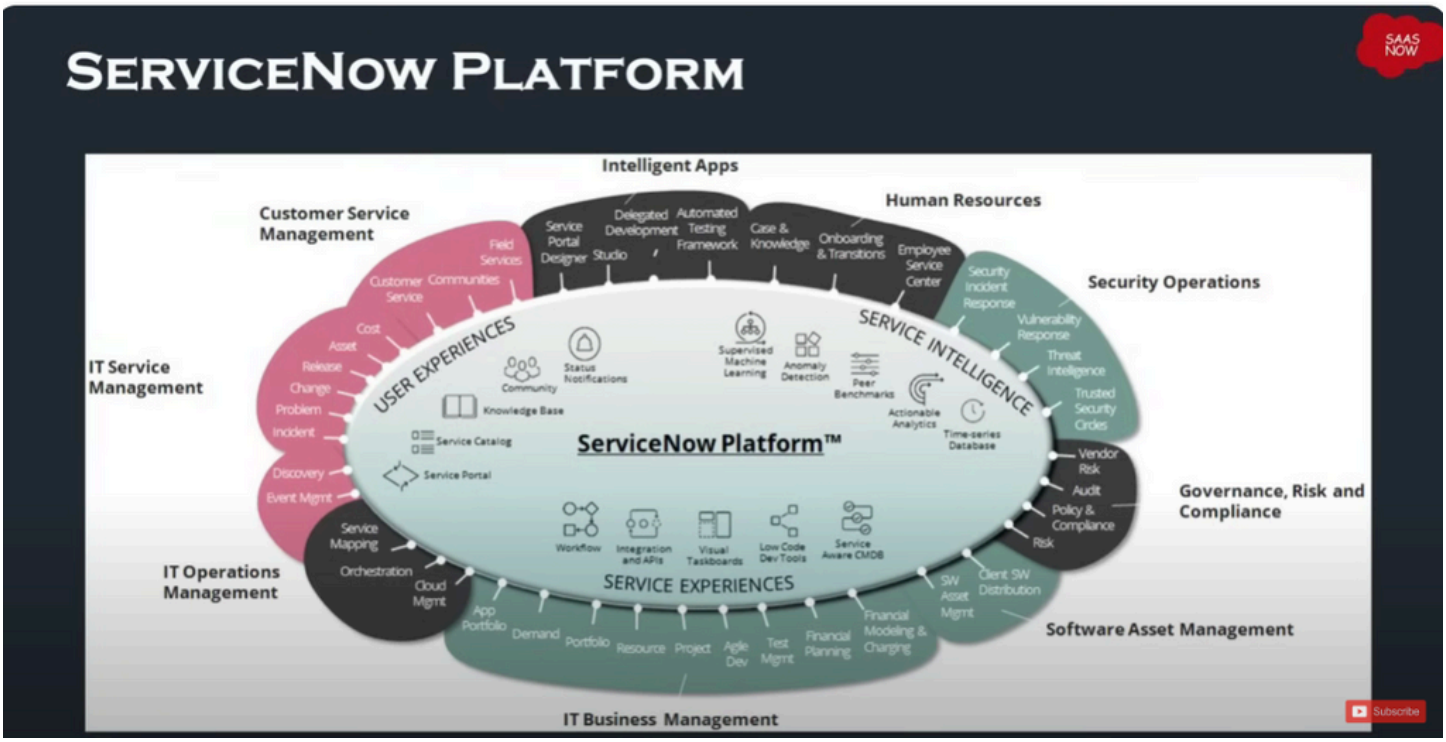
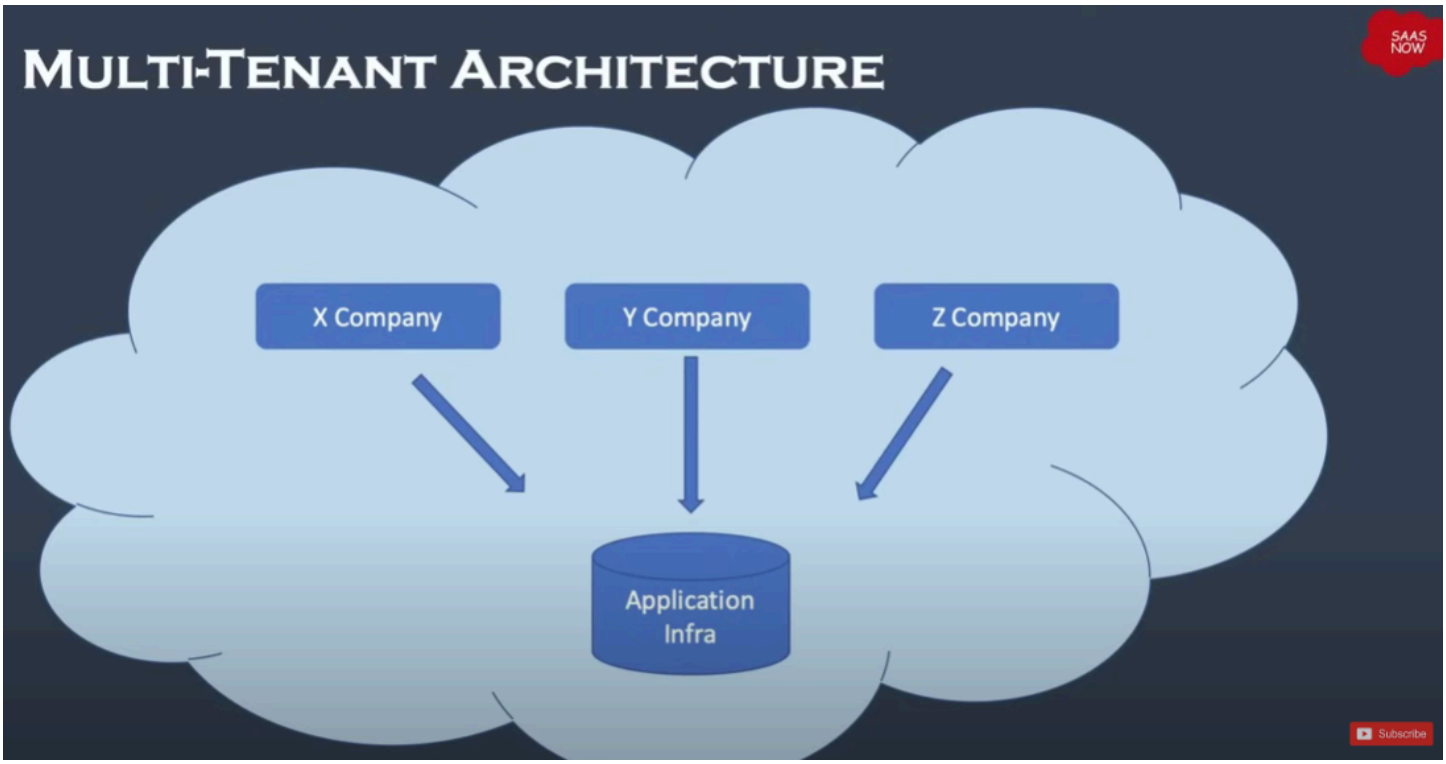
SERVICENOW ADMINSTRATION

PLATFORM OVERVIEW AND ARCHITECTURE

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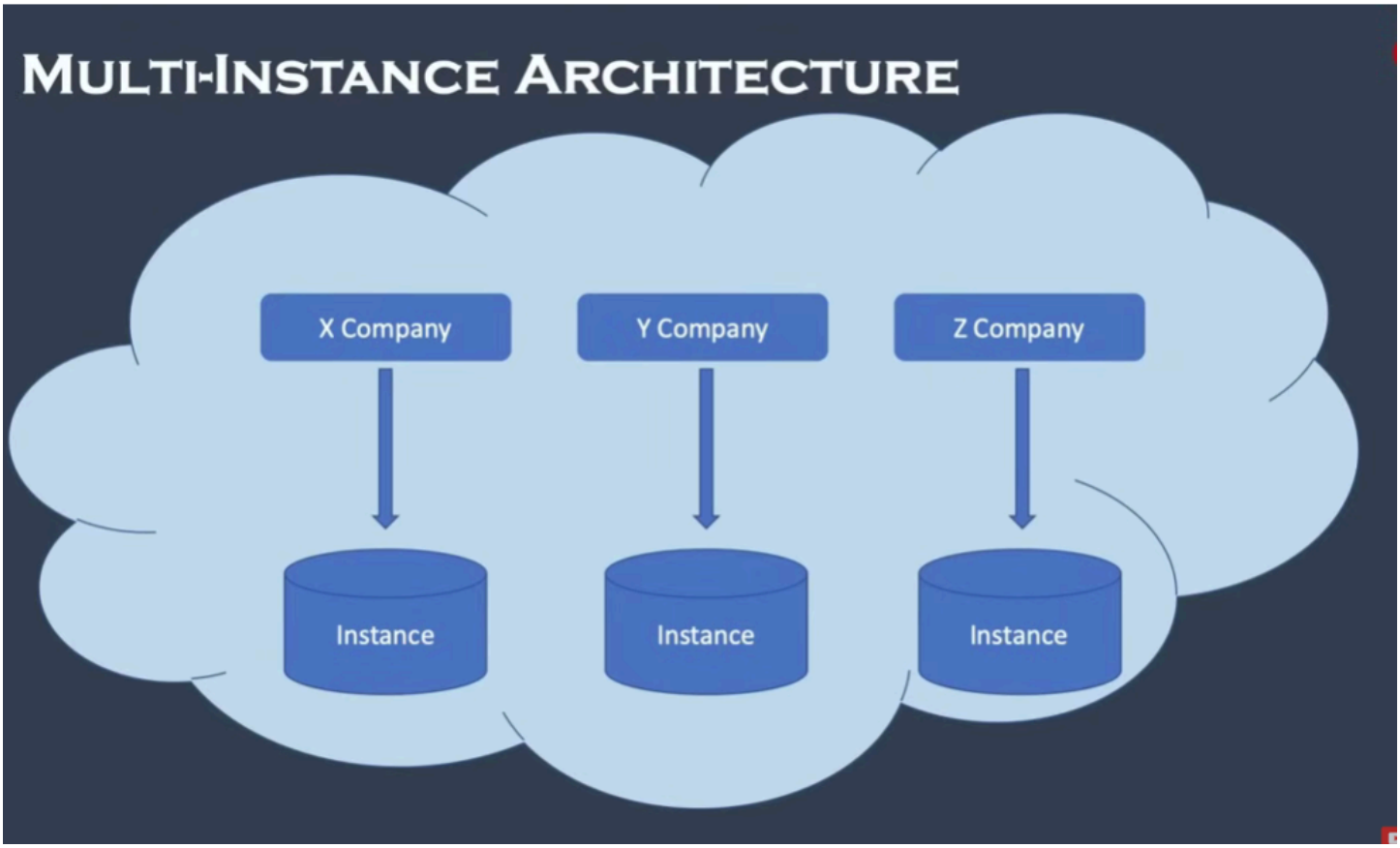
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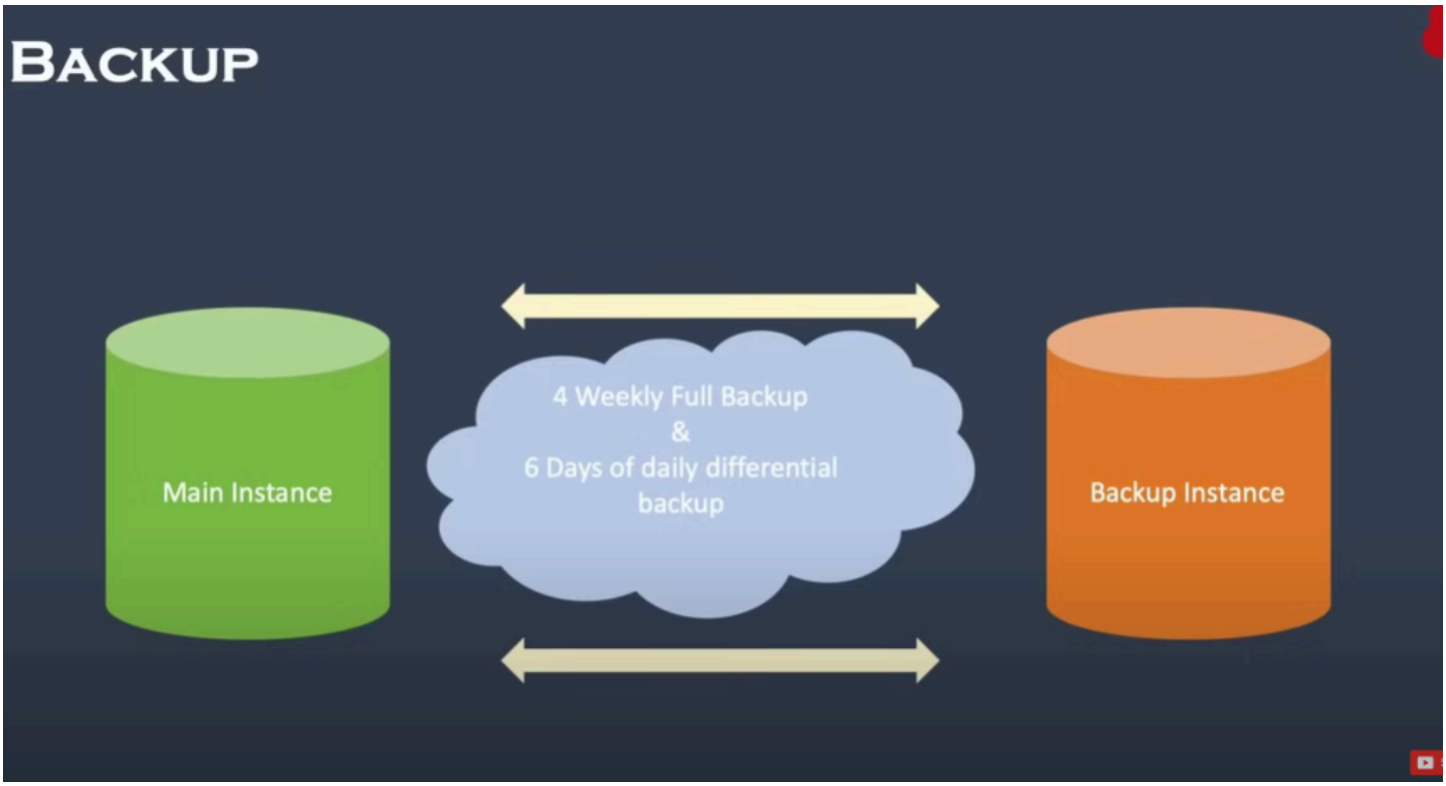


COMPONENTS

1)USER

Cross Reference: A user in ServiceNow refers to any person that requires access to ServiceNow. Each user is
uniquely identified from the other users by having a user ID.

2)GROUP

A group is defined as users who have same duties or same functions or do related work in an organization.
Subgroups help to better perform control of permissions and distribution of tasks.

3)ROLE

A role is a set of permission that specify what a user can do or can see in the application.
can perform within ServiceNow. With roles, we are able to create different roles for users and groups that can be assigned to different people.

BASE SYSTEM ROLES

Admin
Approver_user
Itil
Catalog_admin

USER INTERFACE AND BRANDING

Navigation Bar:

The navigation bar is located on the left side and gives Links to Applications, Modules and other system features.

When it comes to finding a particular application or feature, the global search gives users the chance to do that.

Homepage and Dashboards:

The following are the benefits of dashboards: Dashboards give a single view of performance, KPIs, operational reports, and much more.

indicators.

It is flexible as the users can be able to adjust the homepage by adding widgets, charts, reports and lists on it.

display relevant information.

Forms:

pull data into forms, and manage assignments. It permits the users to create or view the content or even edit it if the need arises.

change records (such as incidents, and change requests).

The form is fully customizable and accessible by organizations that are allowed to remove or add more fields of their preferences.

Lists:

A list shows records in a tabular view enabling users to make some ordering and searching. and make changes in several records at the same time;

One can make lists that show information and columns to be specific to a given user.

Service Catalog:

● The service catalog incorporates the means through which a user can demand for services or

products from different categories.

 Service catalog items can be described, associated with specific icons, and have entries that are specific for every user.

options.

Self-Service Portal:

Leverage Knowledge Management through the following Key Benefits: Offers direct and branded facade to end-users for browsing knowledge articles and asking Questions requests, or reporting incidents.

This portal is most appropriate for users who may not have much knowledge on the backend of the interface, which is designed for clients as opposed to an operator-like interface of the

SERVICE NOW BRANDING

Logo Customization: The ServiceNow banner can also be personalized by uploading the

organization’s logo to replace the ServiceNow logo.
LET’S COMPARE FOOTPRINTS! : ***MaryAnn*** □ Most commonly it is located in the top navigation bar, self-service portal and emails notifications.
Theme and Colors: To the surprise of the admins, they can change the platform’s color options, including primary and secondary colors. to conform to the branding standards of the organization to create uniformity.
Custom themes can be set to backgrounds, headers, buttons, and many other UI related aspects.
Banner and Icon Customization:
• Banners throughout pages, particularly on the self-service portal and a service catalog can be
More often it is colored and accompanied with images or icons relevant to the content of the headline.
Icons used to represent applications and services which appear on the service catalog can also be alter.
Self-Service Portal Branding:
The self-service portal is required to be heavily branded to include customization options such as theme, layout fonts,and more.
that is in accordance to the particular style of the organization they belong to.
The custom CSS special format of HTML can be used to modify different graphical features. this would provide the user with complete flexibility in how the portal looks like.
Email Branding:
The following are the benefits associated with ServiceNow: ServiceNow lets users modify the appearance of notification emails, thus allowing organizations to
change the organization, style, and design of the logo, as well as change the messages.
Many organizations integrate log,colorr and certain details into e-mailing templates.
Custom Fonts and Styles:□ Custom Fonts and Styles:
The following is the list of advantages that can be obtained owing to the usage of the proposed platform: The font type, size, and style can be changed in order to achieve a unique appearance of the text.
aligned with brand standards.
Example: Custom themes like CSS or skin can be applied for highly customized branding options available.
LISTS
Rows and Columns:
Companies that are using databases to arrange their records may find the following concepts helpful:

Row(s)

Each row is a record.
Every column relates to the field from the table of the respective record.
Personalization:
They are also in a position to move/copy/delete objects, so inthe case of the list, users can again add or delete columns and place them inany timee.
it to show corresponding information Then it will lead them to present the appropriate data.

Inline Editing:

- Records can be updated right from the list, which means that a user doesn't have to open a form.

 Sorting:
 Most of the read-only lists can be filtered and sorted by any of the displayed columns by simply clicking on the column 'header'.
 Context Menus:
 When a user positions the pointer over a list column or record, right-clicking produces several options (e. g. ,view, edit, assign, delete)

FILTERS

 Filter Conditions:
 Filters are one or more conditions which have to be complied with by the records if they are to be shown
list.
 The conditions are set depending on the field values for instance "State is Open", "Priority is High".
 Filter Operators:
 Mechanical comprise of terms like "is'', 'is not'', ''contains'', ''greater than ''and so on explain how a
It should be, as has been suggested by other researchers, that the record should match the condition.
 Save Filters:
The following are the additional features of the filter; The user is able to create filter presets that they want to use frequently.
 Filter created can be exported to other users or other bundle of users.
 Breadcrumbs:
 Filters are displayed as 'breadcrumbs' on the top of the list to make it convenient to identify.
and also see the criteria that have been applied by the relevant government departments and adjust if necessary.

FORMS

 Field Types:
 Forms includes the following basic field types, text field, date field, check field, drop down

field, reference field etc.

 Form Layout:

 Using the form designer, administrators have the option of editing the layout of the form which entails either adding or deleting sections, tabs or even entire forms altogether.
fields.

 The form is easily customizable where one can add related activities such as:
attachments, and related lists.

 Form Views:

Some of the options which can be set on a form include: The ability to create more views of a particular form where only certain fields will be displayed.
the user function or work.

- Users can switch between views as changes may be required depending with what is required at the moment.

UI Policies and Scripts:

Pattern : In web form, actions can be taken according to the input of the user using UI policies (for instance, the form can be dynamically changing its look. g. ,
real-time status (for example, by using Apex class with such methods as hiding/showing fields) or client-side scripts.

Form Buttons and Actions: Form Buttons and Actions:

Some messages can be as simple as “Submit”, “Save”, or “Delete” and they can be placed at the lower end of the page.
forms. Contextual buttons create record-specific actions such as “Resolve,”
"Close," or "Approve. "

ServiceNow Task Management

Task Management in ServiceNow is one of the functionalities which enable clients to generate,
overseer, and even coordinate tasks within different processes and flows. We can identify tasks as heart of the.
ServiceNow platform and are found in different modules such as incident management,
The three IT service management processes that can be directly connected to the implementation of change management are Problem Management and Request Management.

Attributes:

 Task Number: A distinct number/numbering system is provided to every task like incident (INC0001234).

 Assigned To: The person or the group that is assigned with the responsibility of completing a given task.

 State: Possible task status are: New, In Progress, On Hold and Closed, which show the current state of the task.

 Priority: Specifically, it establishes the level of its priority and its classification as urgent or

not. g. , Critical, High,
Medium, Low).
 Due Date: What is the due date upon which the task is supposed to be finished.
 Description: What should be a good description regarding the purpose of the task or the work require

Task Types:

 Incident: Depend with problems arising from interferences with normal flow of services.
 Problem: Learn to recognize the underlying reasons leading to incidences.
 Change: Accept change requests of IT systems or infrastructure.
 Service Request: Control incoming offers on fresh services or goods.
 HR Case: Make sure such issue or request is handed over to the HR Service Delivery.

Task Lifecycle:

 Often tasks have some sort of life cycle, which involves different states –. g., New, Assigned, In
Progress, Completed, Closed).
: Workflows, together with business rules assist in identifying whether tasks are progressing as they should in an organisation.
lifecycle efficiently.

ServiceNow Notifications

In ServiceNow the use of notifications is relevant and it becomes a crucial aspect of informing users about critical events or a task.
which includes additions, approvals and modifications of contents within the platform.
Notifications also will not allow the wrong users to think that they are subscribed to this blog.
receive the information on time thus improving the productivity, teamwork, and proper process.
efficiency.

1**. Notification Types:**

o Email Notifications: The most general to the most specific employed in disseminating important announcements and messages.
alerts via email.
o SMS Notifications: To send alerts & updates and other messages through text bulletin.
o Push Notifications: Messages that are posted in the alert that is located in the ServiceNow mobile application.
o In-App Notifications: Notifications which are displayed right within the ServiceNow environment
for logged-in users.

2. Triggering Events: Notifications are synchronized with certain events that take place within the system and include the following:

o **Record Changes:** When a task, an incident or a request is generated, changed or perhaps completed.

o **SLA Breaches:** Also, when an organization is preoccupied with the possibility of having to breach a service level agreement (SLA).

o **Approvals:** When an approval request is needed or has been done or completed.

o **User Actions:** Specific actions to be performed by a user and the user interaction scenario includes the following when those specific actions are executed by a user. g. , a record is Theories of Record: A Record in Reference to Theories of Record Theories abound in reference to the concept of record, and all of them are positive.

assigned to them).

3. **Conditions for Notifications:**

:o The notifications function can be used only to send out an alert where the condition set by the user is met (for instance). g. ,

This is usually in the formats such as “Subpriority is high” or “State is closed”.

o They can also be customized according to a job description, people’s positions, or individual users depending on

defined criteria.

4. Notification Templates:

o Email Templates: Templates that define the appearance and content of the EMAIL to be sent out as notification

approach to the websites’ appearance and what information it contains. This could include dynamic fields such as task To be more specific, it can involve fundamental parameters like task, to be more precise, task,

Number, priority and user assigned is the categories of the tickets that are received by the ticketing system.

o SMS and Push Templates: In particular, deltas with shorter and more specific templates designed for a mobile environment

delivery.

5. Customizing Notifications:

o Message Content: Alerts can be also tailored by the administrators as to the content of notifications.

Such as subject lines, body text and variable text that import data they from records.

o Recipients: You can send the notification to particular user, group of users or to all the users in a defined role. They can

can also be directed to specific disease (s) (e. g. , for, to, from, relating to an activity

owner).

o Notification Frequency: They are enabled to set the notifications to be issued at the time that they choose.

planned, or delivered on an 'as-needed' basis after a selection of articles have been compiled into one mass e-mail.

6. Subscription-Based Notifications:

ServiceNow also enables one to subscribe to certain notices in order to inform users, who do not part of the system's institution, about records they might be fond of, even if they do not own the record. or assignee.

ServiceNow Knowledge Management

Knowledge Management in ServiceNow brings about a way through which these organizations can be able to capture, store and share. information between several functions and departments with the purpose of improving the effectiveness. It consolidates information FOR example; how-to guides, solutions, troubleshooting tips, and best practices that can be of a great help to the employees as well as the customers while working with the system. help with general questions, and problems and increase efficiency.

1. Knowledge Base:

o Definition: A knowledgebase is a library that contains knowledge articles and indexes them as well.

This means that knowledge can be created in several copies where each organization department will have its knowledge base.

topics (for example, IT, HR, customer support).

o Categories: Articles can be accessed per category, which makes it convenient to either scroll or search through the contents of Go Too.

search for relevant content.

2. Knowledge Articles:

o Definition: Documents which may contain information or instruction to the personnel or other individuals. address a specific topic.

o Types of Articles: Some of the articles could be FAQs, tutorials, or troubleshooting articles. policies, and more.

o Article States: A typical article may be in states including Draft, Review, Published or any other state. Retired to guarantee both the accuracy of data used as well as the relevance of information i**ncorporated in the kit.**

3. Search and Discovery:

Search Functionality: The knowledge articles can be searched using keywords to arrive at the required article or summary. phrases.

Contextual Knowledge: It is useful that the platform can offer knowledge articles related to the information the user is interested in dependent upon user interactions, for instance, when describing an incident or a service request.

Filtering: Users are capable of sorting the search outcomes by categories, date, appeal, or rating. however, analyzing the amount of time took to locate the information within the page, it was noticed that the practice allows users to easily and swiftly access appropriate information.

4. Knowledge Approval and Publishing Workflow: Knowledge Approval and Publishing Workflow:

Review and Approval Process: An approval process as such as not needed for knowledge articles as they are not published for public viewing. and to check the contents that are to be published in order to improve the work flow and the quality of the content.

Version Control: It is possible to keep the so-called ‘duplicate’ copies of an article, to enable the users to look at the previous or the current version.

Ownership: Authors and owners can be assigned for articles that appear in themed section so that everyone knows what their role is. I shall use these words to describe parts of the web application that are responsible for updating the content.

5. Feedback and Ratings:

o User Feedback: Readers can choose articles they are interested in and rate them as well as give feedback on the same. to the knowledge managers where they could apply modifications or amendments to a piece according to the experience of the users.

Analytics: It is also possible to monitor how often and by which readers the article is used as well as the level of its popularity among them. efficiency to ask questions in order to decide about what parts of the procedure could be optimized.

6. Permissions and Access Control:

Role-based Access: Permissions can be set in order to determine who can access or can view. submit knowledge articles or edit knowledge articles or create knowledge articles. We can have mixes of the teams where one team can have access to their specific knowledge bases.

Public vs. Private Knowledge Bases: Knowledge bases of some sort can be built Some databases are accessible to the general public for customer or outside use and others are for internal use only.

7. Knowledge-Centered Support (KCS):

The KCS method adopted by ServiceNow encourages the production and trialling of

better knowledge, a part of resolving incidents and requests is sharing it.

Agents can quickly create new knowledge articles or update the ones that already exist based

on the resolutions of the particular issues.

SERVICE NOW Service Catalog

The ServiceNow Service Catalog is a self-service portal where users can request services, products, or information from any department within an organization ranging from IT to HR and Facilities. supplies a user-friendly interface for submitting and tracking requests, hr-at the same time, it ensures that the fulfillment process is as fast as possible and that the users have the same experience.

1. Service Categories:

The services and products can be classified into categories such as (e.g., IT Services, Employee Services, Software Requests), and this makes it clear and easyto leavet them and browse thenecessary information. Thus, they are easily found and held by users.Components can be modified to fit departments or functions.

2. Service Items:

Each must offer a catalog item that is a service or product. The request can be from hardware such as laptops, to services (e.g., password reset, software installation).

Item Details: The detail that comes with an item will take the form of a description, estimated fulfils time, and any costs associated with it, this will inform the users on what they are requesting.

3. Forms and Fields:

As a user selects a service item, the form for the fulfillment of the service is presented to them

For example, information, e. g. a reason for a laptop, software requirements, is required.

Forms can be customized with different field types (text boxes, dropdowns,

attachments) to retrieve specific information about the service.

4. Workflows and Automation:

Each catalog item can have an associated workflow that defines how the request

is handled after submission.

Workflows may have steps such as a request for organizational resources (laptop, phone, keyboard) to go for approval. Moreover, they can be used for items such as delivery of the item via the ticketing system.

Work as data analyst who is mostly engaged with the different aspects such as data analysis, predictive analysis, and presenting visualization.

Work can involve the areas of sales enablement, price decision support, and error calibration as well as several areas well yet to be discovered. Other things like templates, libraries, and integrations.

Approvals:

The majority of service requests have to be approved by managers or specific roles before

being fulfilled. It is the ServiceNow Service Catalog that makes this possible by notifying the necessary approvers and keeping track of their responses.

Approvers have the right to approve or reject the requests using email, the ServiceNow interface, or the mobile app.

6. Request Status and Tracking:

They can monitor the progress of the requests ever since they are submitted.

They get real-time notifications on the progress (e.g., "Pending Approval," "In Progress," "Completed").

Users can also look back at the history of their requests.

7. Service Catalog Items for Different Departments:

IT Services: Hardware and software requests, password resets, access to systems.

HR Services: Employee onboarding, benefits inquiries, training requests.

Facilities Services: Maintenance requests, office space booking, equipment installations.

8. Integration with Knowledge Base:

o A link between the Service Catalog and the Knowledge Base can be made in such way that some articles or FAQs can be suggested to the users according to their pick of a service. This makes the users be able to get quick fix to their problems on their own, without having to raise a request.

Customization of the Service Catalog

1. Tailored User Experience:

o Organizations might put on their logo, choose the right color of the Service Catalog, and pick up the right themes they want, including the general outlook to match their branding.

o The operators of different sections can tell the metier of different catalog views by groups of users and make the depend on the department or the user role and the services they are interested in.

2. Dynamic Forms:

o ServiceNow offers dynamic forms that act on what the user puts into.

For

example, if a user selects "Laptop Request," additional fields may appear to

capture specific details like operating system preferences or accessories.

3. Item-Specific Approvals and Workflows:

o By contrast, the workflows apropos to the catalog item may be considered unique, items can have their own way of validating and an individual approval process. E.g., So, a hard drive request may be requested in IT and the user's department, while a request for an office supply may need approval from one party. ServiceNow Tables and Fields Tables and fields are the core components of the data structure in ServiceNow. They store and manage data across the platform, allowing users to create records, build applications, and automate processes. Tables organize data into records (rows), while fields define the properties or attributes of each record (columns). Tables in ServiceNow

A table is a collection of records that store data for a specific function or process (e.g., Incident, Change, User).

Each record represents a specific instance of the data stored in the table (e.g., an individual incident). Types of Tables: o

Base Tables: These are the core tables provided by ServiceNow (e.g., Task, Incident, Problem, Change).

Extended Tables: ServiceNow uses a hierarchical table structure. Many tables are extended from base tables to inherit their properties and fields. For example, the Incident table is extended from the Task table, inheriting fields like Assigned To, State, and Priority.

Custom Tables: Administrators can create custom tables to store data specific to their organization's needs. Table Hierarchy: o The Task Table is one of the most important base tables in ServiceNow. Many tables, such as Incident, Change, Problem, and Request, extend from the Task table to inherit its fields and functionalities.

Parent-Child Relationships: Tables can have parent-child relationships, where a parent table holds general information and child tables hold more specific data. For example, the Incident table inherits fields from the Task table but adds fields specific to incident management.

Important System Tables: sys_user: Stores user information. o cmdb_ci: Stores Configuration Item (CI) information. o incident: Stores incident management records. o change_request:

Stores change request records. o problem: Stores problem management records. Fields in ServiceNow

1. Definition: A field is a single piece of data within a record. It defines an attribute or property of the data stored in a table. o Each record (row) in a table has multiple fields (columns) that store specific information (e.g., Short Description, Priority, Status).

2. Field Types: ServiceNow supports a variety of field types to handle different kinds of data:

 String: For text data.

 Integer: For numeric values.

 Date/Time: To capture dates and timestamps. Reference: A field that links to a record in another table (e.g., Assigned To field refers to a user in the sys_user table).

 Choice: A predefined list of options (e.g., Priority with values like High, Medium, Low).

 Boolean: Stores true/false values.

3. Field Properties:

Mandatory: A field can be marked as mandatory, meaning it must be filled out before a record can be saved. o Read-Only: Fields can be set to read-only to prevent users from modifying them. o Default Value: Fields can have default values that automatically populate when a record is created

4. Field Inheritance: Fields in extended tables inherit properties from the base table. For example, the Incident table inherits fields such as Priority and Assigned To from the Task table. Table and Field Relationships

1. Reference Fields: A reference field creates a relationship between tables by allowing one table to store a reference to a record in another table. For example, the Assigned To field in the Incident table is a reference to the sys_user table, linking the incident to the user handling it.

2. One-to-Many Relationships: In this type of relationship, one record in a table can be related to many records in another table. For example, a user in the sys_user table can be related to many incidents in the incident table.

3. Many-to-Many Relationships: This type of relationship allows multiple records in one table to be related to multiple records in another table. ServiceNow supports this through special relationship tables.

4. Dependent Fields: Some fields can be dependent on the value of other fields. For instance, a Subcategory field might only become available after selecting a specific Category in a request form. Table and Field Management

1. **Table Customization:** Administrators can create new custom tables and fields to store specific data relevant to their organization.

Existing tables and fields can also be customized by adding new fields, changing field properties, or creating relationships with other tables.

2. Data Dictionary: The Data Dictionary is a key part of ServiceNow's architecture. It defines the schema (structure) of tables and fields, including data types, default values, and relationships.

3. Business Rules and Client Scripts: Tables and fields can be enhanced with business rules (server-side scripts) and client scripts (browser-side scripts) to enforce data policies, validate inputs, and automate actions based on specific conditions.

ServiceNow Access Control List (ACL)

The term 'Access Control List' (ACL) implies a system of instructions that declare user authorization for accessing and manipulating respective data within the platform. The ACLs are intended to administrate the fact that just people authorized by the Central Administration can view or change the system-wide record. ACLs also make sure that all data accessible to different users on the platform are true and are not being tempered with the data by a non-authorized person.

Access Control Rules:

An Access Control Rule is a rule that covers the right of a user or group to be licensed

with a table, field, or record. The rule can control the following actions:

 Creation: Permission to a table to add a new record.

 Reading: The ability to check or view the records in a table.

 Writing: The ability to edit records that have been already entered into a table.

 Deletion: The capacity of moving data from a table.

Types of Access Control:

Table-level Access: Gives the rights to an entire table.

Field-level Access: Decides which fields will be available to a specific user.

For one, a situation might be the readiness of a user to check a record, but some parts of sensitive fields like salary or social security number can be hidden.

Record-level Access: Moreover, these access control rules can be used in the condition, for example

the record owner or a particular field value.

Conditions and Scripts:

ACLs can be defined using conditions (e.g., "if Priority is high") or scripts

(JavaScript) to further refine the rules. The functionality of that script

goes as far as it allows the administration to, in a natural way can develop such a complex access control

4. Evaluating Access Controls:

Roles: Access is typically determined by the roles assigned to users. For instance, users with the "admin" role may have complete access to all tables, while those with a "catalog_user" role can only view the service catalog.

Permissions Hierarchy: When a user attempts to access a record, the system assesses ACL rules starting from the most specific (field-level) to the most general (table-level). A user must satisfy all applicable rules to gain access.

User Authentication: Upon logging in, ServiceNow reviews the user's roles and access permissions to determine which data they can interact with.

5. Access Control Inheritance: Extended Tables: When one table extends another, the child table inherits the ACL rules from the parent table. For example, the Incident table inherits access controls from the Task table.

6. Order of Execution: ServiceNow processes access control rules in a specific sequence: it first checks table-level rules, followed by field-level rules. If the user does not meet any of the rules during this evaluation, access is denied.
Components of an Access Control Rule

1. Name: Indicates the table and field to which the ACL applies (e.g., incident.number or incident.*).

2. Operation: Specifies the action being controlled (Create, Read, Write, Delete).

3. Roles: Lists the user roles necessary to pass the rule.

4. Condition: Optional criteria that further refine access (e.g., only allow access if the state is "Closed").

5. Script: Custom server-side logic written in JavaScript to enforce more complex conditions.

Data Import

Data Import in ServiceNow refers to the process of bringing external data into the platform to fill tables. This feature enables administrators to import data from various sources such as spreadsheets, databases, or external applications and map it into ServiceNow's tables. It's often used for migrating data, updating existing records, or integrating with other systems.

1. Data Source: A data source specifies the location of the data intended for import into ServiceNow. Common data sources include A data source specifies where to find the data you want to import into ServiceNow. Common data sources include: - CSV files: Import data from spreadsheets. - Excel files: Import from .xls or .xlsx files. - XML files: Import data in XML format. - JDBC: Connect to external databases to retrieve data. - Web Services: Import data using SOAP or REST APIs. Administrators set up the data source by providing the necessary file or connection details.

2. Import Set: Import Sets are temporary tables that stage incoming data before it is transformed and moved to the target table. Data is first imported into the import set, allowing for review, mapping, and cleaning before it reaches the final destination table.

3. Transform Maps: Transform Maps outline the rules for transferring data from the import set to the target table. Administrators map fields from the import set to the target table fields to ensure accurate data insertion into the correct columns. Field Mapping can be done automatically or manually to align the data with the appropriate fields in the target table.

4. Coalesce Fields: Coalescing fields help determine if an incoming record is new or if it should update an existing record. When a field is designated as a coalesce field, ServiceNow checks for a matching record in the target table. If a match is found,

the existing record is updated; if not, a new record is created. Multiple fields can be coalesced to ensure unique identification of records.

5. Data Transformation: Transformation involves moving data from the import set to the target table. During this process, scripts can be utilized to manipulate the data, validate it, or ensure that the imported data adheres to business rules.

6. Error Handling and Reconciliation: Any errors or issues that arise during the import process, such as missing required fields or data type mismatches, are logged for review and correction. The platform offers tools to track and resolve these issues.

ServiceNow Configuration Management Database (CMDB)

The Configuration Management Database (CMDB) in ServiceNow serves as a centralized hub that holds information about all IT assets, services, and their interconnections within an organization. These assets, referred to as Configuration Items (CIs), encompass a wide range of components, including servers, software, network devices, databases, applications, and business services. The CMDB plays a vital role in effective IT service management (ITSM) by providing a structured and comprehensive view of the organization's infrastructure and services.

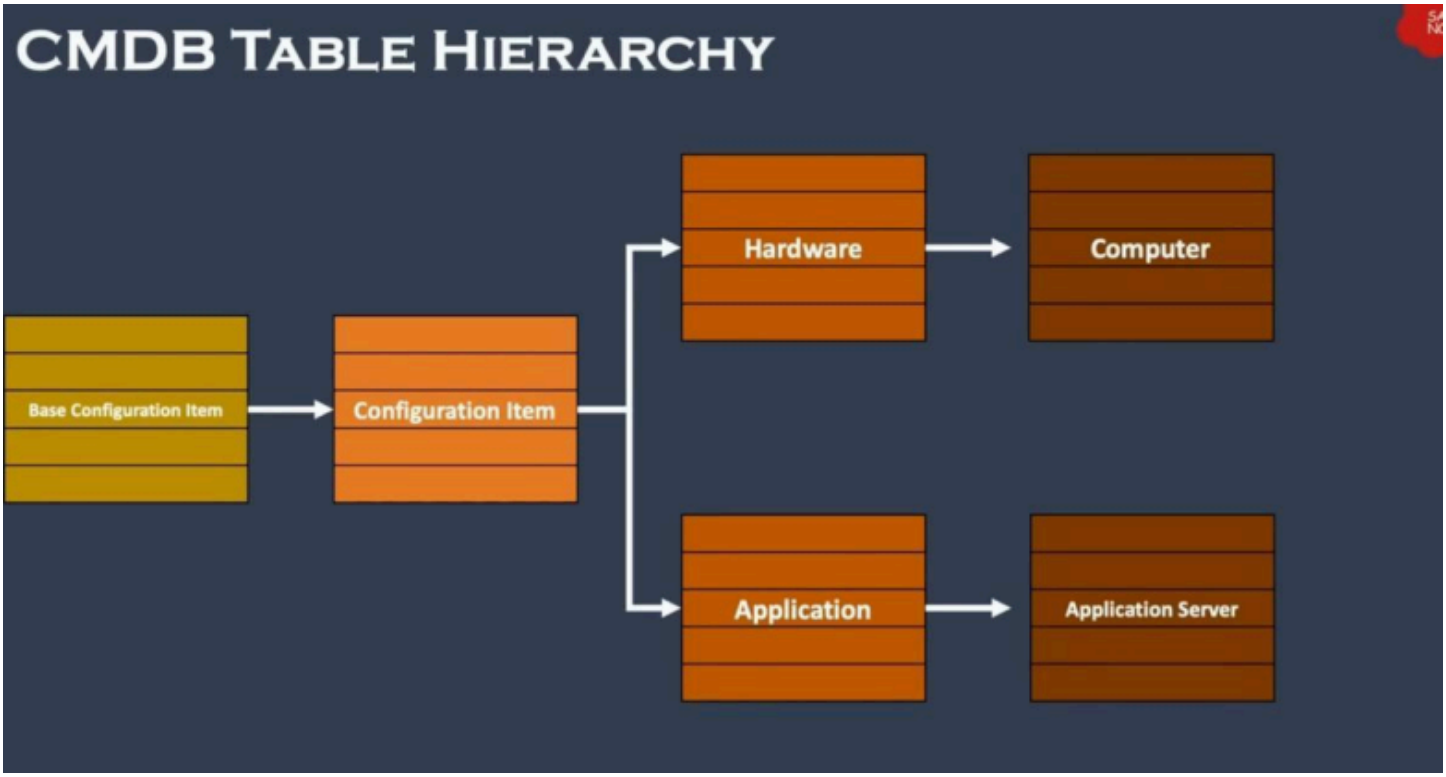
1. Configuration Items (CIs): - CIs are the building blocks of the IT environment, which can include hardware, software, network devices, and even users or business services. - Each CI is represented as a record in the CMDB, complete with its own

attributes (e.g., name, type, status, location). - CIs can be classified by type (e.g., application, server, database) and organized into various groups.

2. CI Classes: - CIs are categorized into classes based on their type and function. For instance, servers, routers, applications, and databases are all assigned to different classes. - Each class inherits attributes from its parent class, facilitating efficient classification and management of CIs.

3. Relationships Between CIs: - The CMDB not only catalogs individual CIs but also monitors the relationships among them. For example, a server may host multiple applications, or a network device may connect to several servers. - Understanding these relationships is crucial for assessing how changes or issues in one CI can affect others, which aids in impact analysis and root cause analysis.

4. CMDB Health: - CMDB Health assesses the overall condition of the CMDB data, ensuring its accuracy, completeness, and adherence to business rules. - It evaluates three key aspects: Completeness, Correctness, and Compliance of the data, ensuring that the CMDB remains a trustworthy source of information.



ServiceNow Integration ServiceNow offers strong integration capabilities that enable connections with various systems, applications, and services within an organization. This facilitates data exchange, process automation, and enhanced collaboration across different IT and business functions. ServiceNow accommodates both inbound and outbound integrations using a variety of

protocols and technologies, making it versatile for numerous use cases. Types of ServiceNow Integrations

1. Inbound Integrations: - Data or requests are received by ServiceNow from external systems. - Examples include importing data from HR systems, receiving incident tickets from monitoring tools, or pulling configuration items (CIs) into the CMDB.

2. Outbound Integrations: - ServiceNow transmits data to external systems. - Examples include sending change requests to third-party change management systems, pushing incident data to communication platforms, or updating external asset management systems. Integration Methods in ServiceNow 1. APIs (Application Programming Interfaces): -

REST API: The REST (Representational State Transfer) API is one of the most widely used methods for integrating ServiceNow with other platforms. It allows systems to communicate over HTTP/HTTPS, sending and receiving data in JSON or XML format.

Example: Using the REST API to send incident information from ServiceNow to a Slack channel or another ITSM tool. - SOAP API: ServiceNow also supports SOAP (Simple Object Access Protocol) for data exchange. SOAP is more structured and is often utilized in legacy systems where REST is not an option.

Example: Integrating with older financial systems or ERPs using SOAP to send and receive data.

2. IntegrationHub: - IntegrationHub is a low-code platform designed for building integrations without requiring extensive coding skills. It offers out-of-the-box connectors (spokes) for popular systems like Salesforce, Microsoft Teams, AWS, and more. - It is part of the ServiceNow Flow Designer, which allows for integration workflows through a graphical interface. - Example: Integrating ServiceNow with other applications seamlessly.

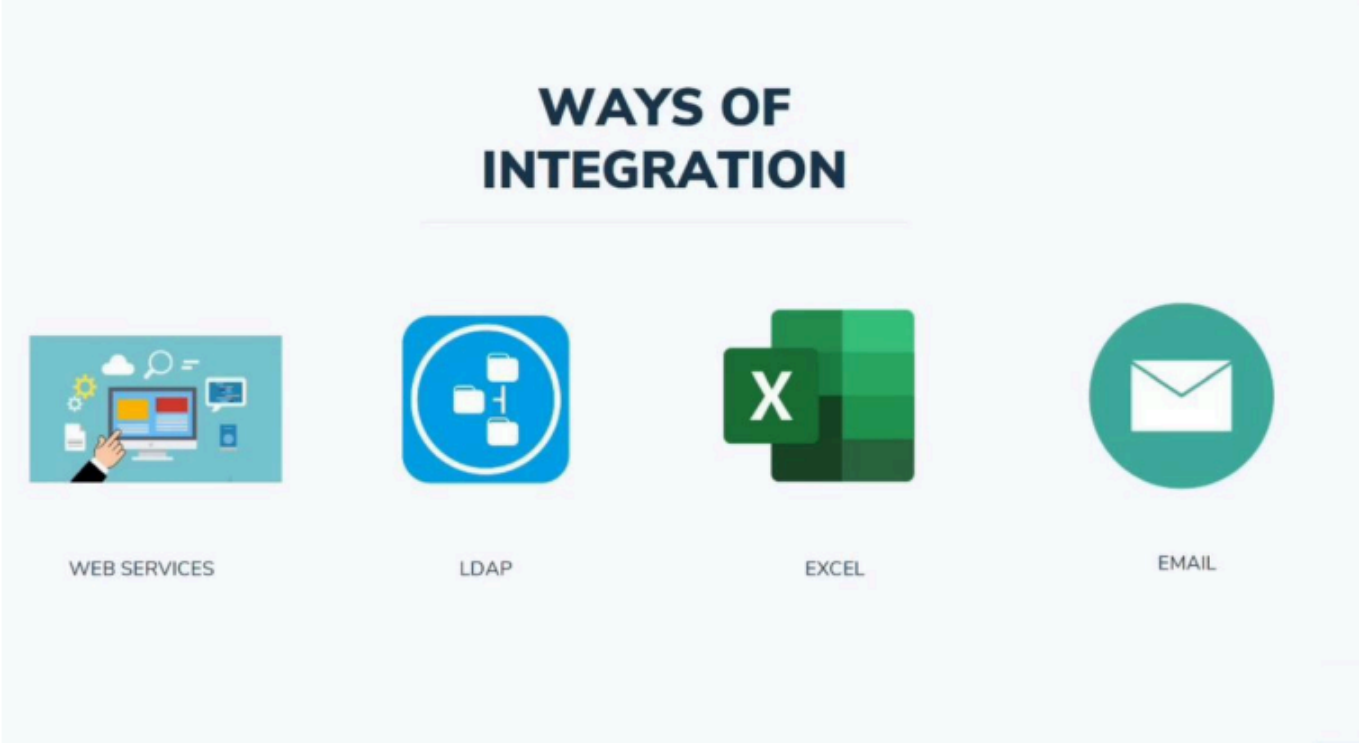
3. MID Server: The Management, Instrumentation, and Discovery (MID) Server is a lightweight Java application that is set up within an organization's network. It enables secure communication between ServiceNow and systems located behind firewalls, including databases, ERP systems, and network devices. o Example: Utilizing a MID server to connect with on-premise databases, which allows ServiceNow to execute queries and retrieve data securely.

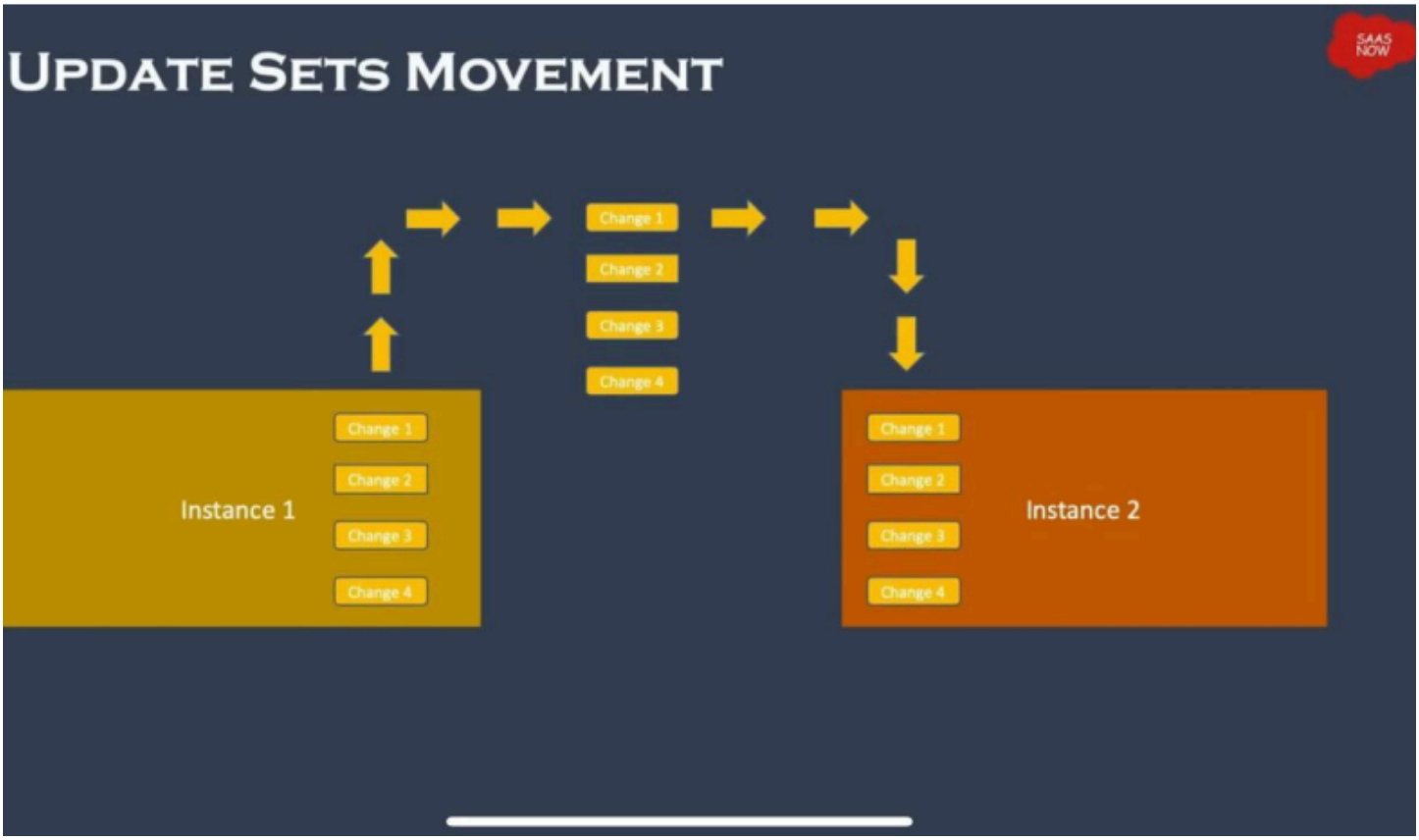
4. Data Import and Export: Import Set: ServiceNow supports the import of data from various structured sources such as CSV files, Excel, and XML through import sets. o Export Options: ServiceNow can export data in multiple formats (CSV, Excel, XML, JSON) or send data to external systems via APIs or file transfers.

5. Webhooks: Webhooks are HTTP callbacks that facilitate real-time communication between ServiceNow and other systems. o Example: A monitoring tool can initiate a webhook to create an incident in ServiceNow when a critical threshold is met, allowing for automated incident creation.

6. Email Integration: ServiceNow can connect with email systems to both send and receive emails. These emails can trigger actions like creating or updating incidents or sending notifications. o Example: An email received from an external monitoring system can automatically create a new incident record in ServiceNow.

7. Third-Party Connectors: ServiceNow offers pre-built connectors for popular third-party applications such as Jira, Microsoft Azure, AWS, Salesforce, and others. o Example: Integrating with Jira to synchronize project management tasks or incident tickets between ServiceNow and Jira




UPDATE SETS MOVEMENT
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