

ServiceNow Connected System

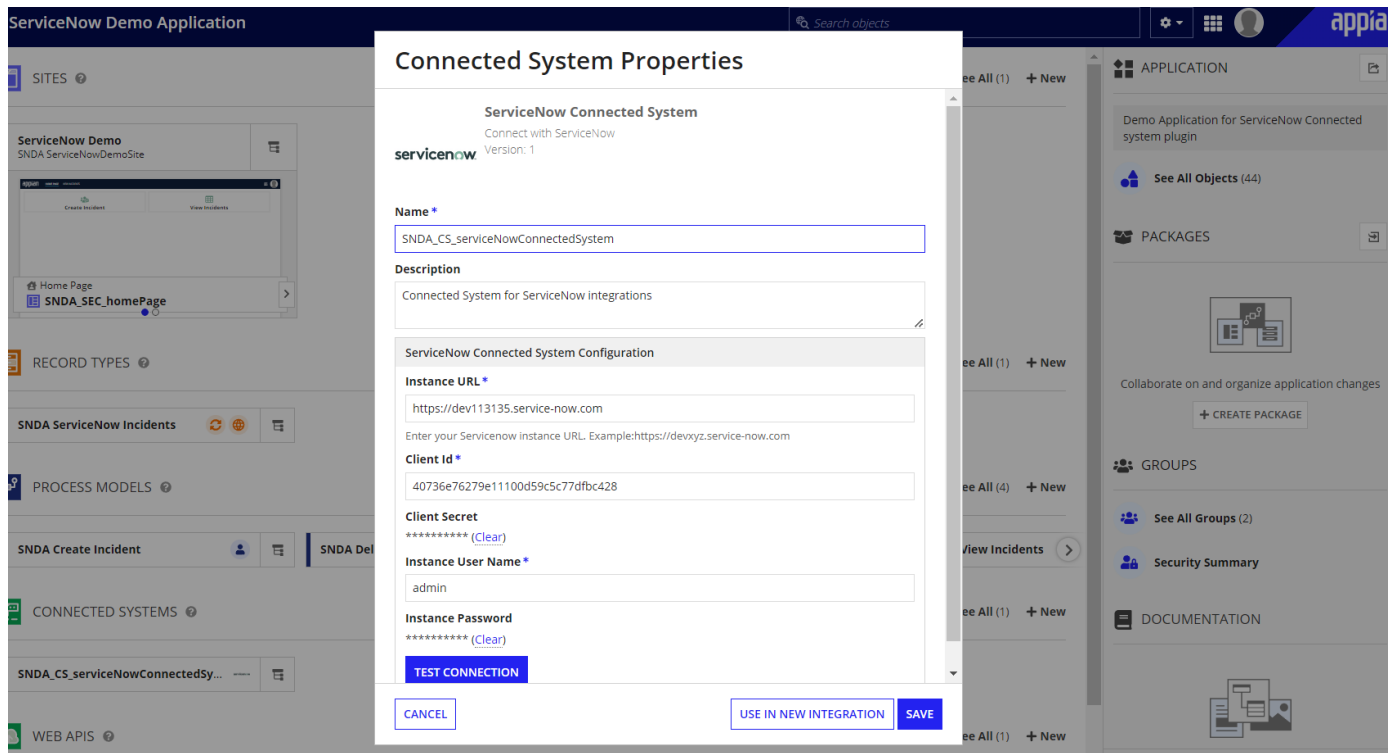
Overview

ServiceNow helps users consolidate their IT resources on a single platform. It redefines the service experience and helps to gain real-time visibility on the entire IT operations. This platform creates automated workflows that execute all the manual IT services. It results in an enhanced IT productivity.

Customization is one of the critical ServiceNow perks that organizations cannot deny. It can be scaled easily to meet any business's current and future needs, helping them evolve with the present and future trends.

An incident is an occurrence that can disrupt or cause a loss of operations, services, or functions. Incident management describes the necessary actions taken by an organization to analyze, identify, and correct problems while taking actions that can prevent future incidents.

Connected System Configuration



The screenshot shows the 'Connected System Properties' configuration form in ServiceNow. The form is titled 'ServiceNow Connected System' and includes the following fields and sections:

- Name ***: SNDA_CS_serviceNowConnectedSystem
- Description**: Connected System for ServiceNow integrations
- ServiceNow Connected System Configuration**
 - Instance URL ***: https://dev113135.service-now.com
 - Client Id ***: 40736e76279e11100d59c5c77dfbc428
 - Client Secret**: ***** (Clear)
 - Instance User Name ***: admin
 - Instance Password**: ***** (Clear)

At the bottom of the form, there are three buttons: 'TEST CONNECTION', 'CANCEL', and 'USE IN NEW INTEGRATION' (with a 'SAVE' button next to it).

Client Id

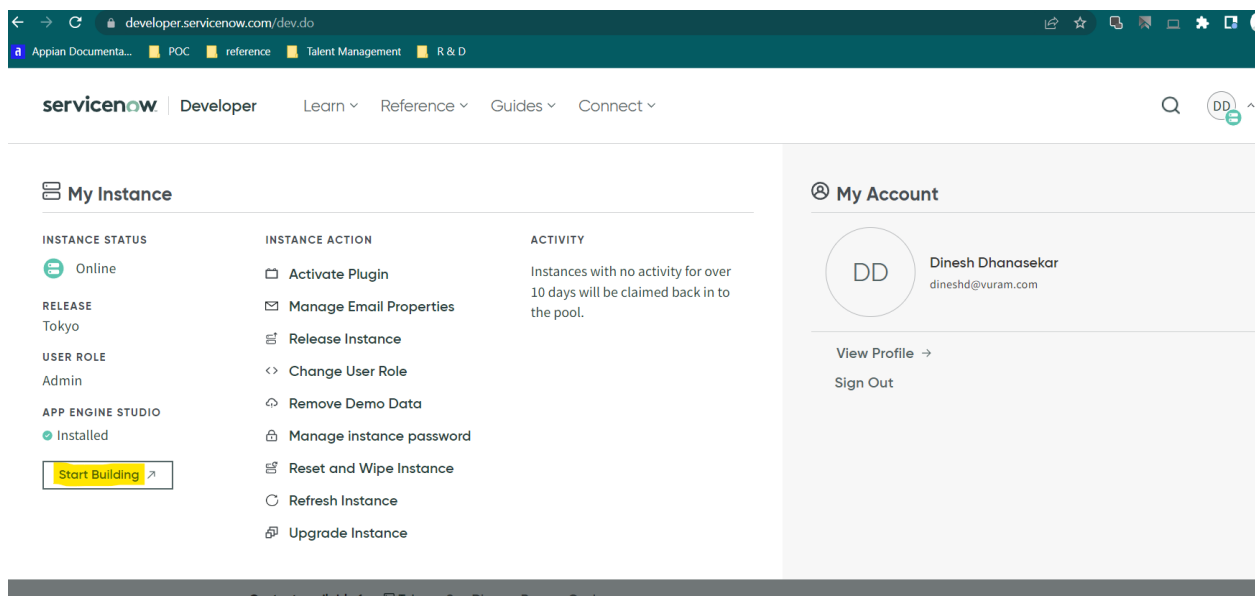
- Provide the client ID from the OAuth client application registry.

Client Secret

- Provide the client secret from the OAuth client application registry.

Steps to get Client Id and Client Secret:

- Login to the ServiceNow Developer Site, then click on the profile icon , then click on the **Start Building** button to open ServiceNow App Engine Studio



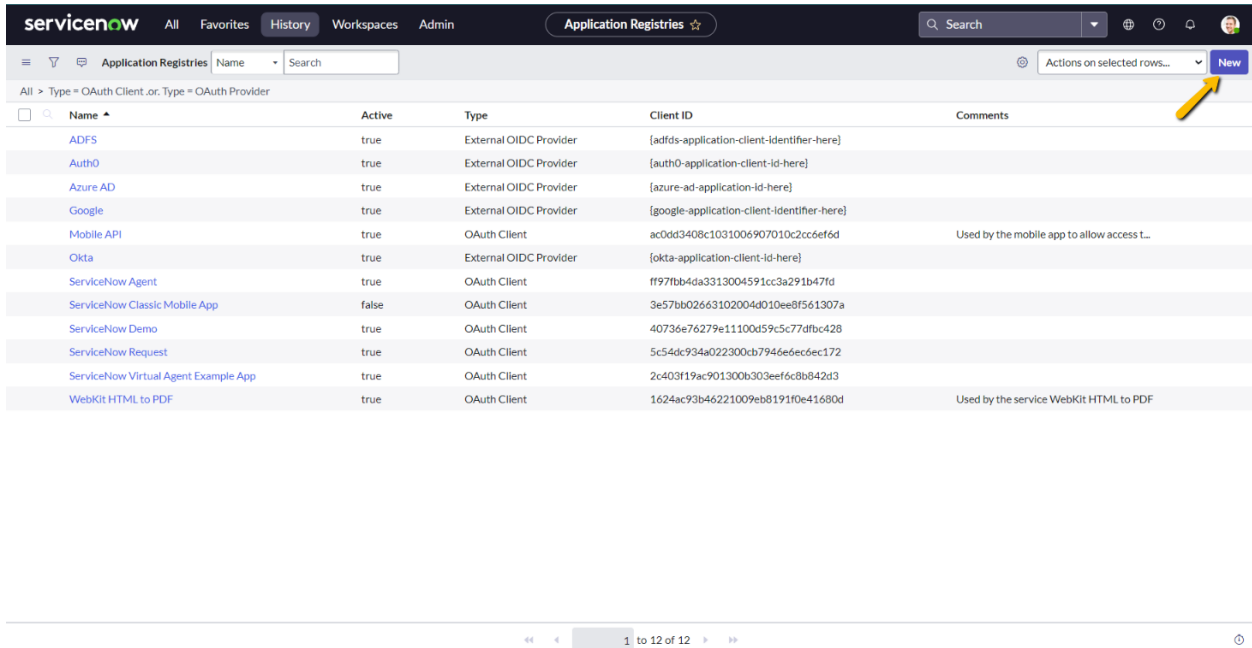
The screenshot displays the ServiceNow Developer Site interface. The browser address bar shows the URL `developer.servicenow.com/dev.do`. The page header includes the ServiceNow logo and navigation links for Developer, Learn, Reference, Guides, and Connect. A search icon and a user profile icon (DD) are visible in the top right corner.

The main content area is divided into two sections:

- My Instance:** This section provides details about the current instance. It includes:
 - INSTANCE STATUS:** Online
 - RELEASE:** Tokyo
 - USER ROLE:** Admin
 - APP ENGINE STUDIO:** Installed
 - INSTANCE ACTION:** A list of actions including Activate Plugin, Manage Email Properties, Release Instance, Change User Role, Remove Demo Data, Manage instance password, Reset and Wipe Instance, Refresh Instance, and Upgrade Instance.
 - ACTIVITY:** A note stating "Instances with no activity for over 10 days will be claimed back in to the pool."
 - Start Building:** A prominent yellow button with a right-pointing arrow.
- My Account:** This section shows the user's profile information:
 - Profile:** A circular profile picture with the initials "DD" and the name "Dinesh Dhanasekar" with the email address "dineshd@vuram.com".
 - Actions:** Links for "View Profile" and "Sign Out".

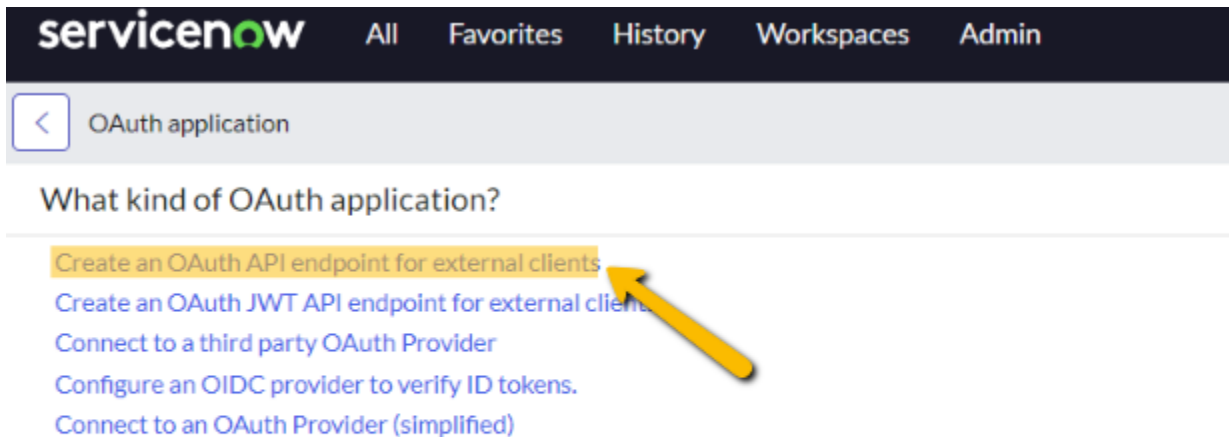
At the bottom of the page, there is a footer that reads "Content available for: Tokyo, San Diego, Rome, Quebec".

- Navigate to **All** → **System OAuth** → **Application Registry**



Name	Active	Type	Client ID	Comments
ADFS	true	External OIDC Provider	{adfds-application-client-identifier-here}	
Auth0	true	External OIDC Provider	{auth0-application-client-id-here}	
Azure AD	true	External OIDC Provider	{azure-ad-application-id-here}	
Google	true	External OIDC Provider	{google-application-client-identifier-here}	
Mobile API	true	OAuth Client	ac0dd3408c1031006907010c2cc6ef6d	Used by the mobile app to allow access t...
Okta	true	External OIDC Provider	{okta-application-client-id-here}	
ServiceNow Agent	true	OAuth Client	ff97fbb4da3313004591cc3a291b47fd	
ServiceNow Classic Mobile App	false	OAuth Client	3e57bb02663102004d010ee8f561307a	
ServiceNow Demo	true	OAuth Client	40736e76279e11100d59e5c77dfbc428	
ServiceNow Request	true	OAuth Client	5c54dc934a022300cb7946e6ec6ec172	
ServiceNow Virtual Agent Example App	true	OAuth Client	2c403f19ac901300b303eeef6c8b842d3	
WebKit HTML to PDF	true	OAuth Client	1624ac93b46221009eb8191f0e41680d	Used by the service WebKit HTML to PDF

- Select **Create an OAuth endpoint for external clients** as shown below.



What kind of OAuth application?

- Create an OAuth API endpoint for external clients
- Create an OAuth JWT API endpoint for external clients
- Connect to a third party OAuth Provider
- Configure an OIDC provider to verify ID tokens.
- Connect to an OAuth Provider (simplified)

- Leave the Client Secret text box as blank to automatically generate a random client secret. Once done, click on **Submit**.

servicenow All Favorites History Workspaces Admin Application Registries - New Record

Application Registries
New record View: Default

- **Client Secret:** Client secret for the OAuth application. Leave it empty for auto-generation.
- **Refresh Token Lifespan:** Time in seconds the Refresh Token will be valid.
- **Access Token Lifespan:** Time in seconds the Access Token will be valid.
- **Redirect URL:** The redirect URLs authorization server redirect to. They must be absolute URLs and they are comma separated.
- **Enforce Token Restriction:** Restricts the access token usage to the API's defined in the [REST API Access Policies](#). Unselecting this option would allow access token usage across other REST API's. [Learn more.](#)

More Info

* Name: ServiceNow Demo Application: Global

* Client ID: 44a044f5fe631110748211d9d079b81e Accessible from: All application scopes

Client Secret: Leave Client Secret blank to automatically generate a string

Active:

* Refresh Token Lifespan: 8,640,000

* Access Token Lifespan: 1,800

Redirect URL:

Logo URL:

Public Client:

Comments:

Auth Scopes

Auth Scope
+
Insert a new row...

Submit

- Now, under the Application registration, select the created registry and copy the client Id and secret from here.

servicenow All Favorites History Workspaces Application Registries - ServiceNow Demo

Application Registries
ServiceNow Demo View: Default

- **Name:** A unique name.
- **Client ID:** Client ID automatically generated by ServiceNow OAuth server.
- **Client Secret:** Client secret for the OAuth application. Leave it empty for auto-generation.
- **Refresh Token Lifespan:** Time in seconds the Refresh Token will be valid.
- **Access Token Lifespan:** Time in seconds the Access Token will be valid.
- **Redirect URL:** The redirect URLs authorization server redirect to. They must be absolute URLs and they are comma separated.
- **Enforce Token Restriction:** Restricts the access token usage to the API's defined in the [REST API Access Policies](#). Unselecting this option would allow access token usage across other REST API's. [Learn more.](#)

More Info

* Name: ServiceNow Demo Application: Global

* Client ID: 40736e76279e11100d59c5c77dfbc428 Accessible from: All application scopes

Client Secret:

Active:

* Refresh Token Lifespan: 8,640,000

* Access Token Lifespan: 1,800

Redirect URL:

Logo URL:

Public Client:

Comments:

Auth Scopes

Auth Scope
+
Insert a new row...

Update Delete

Instance Url

- Provide the url of the ServiceNow instance.

Instance Username

- Provide the username of the ServiceNow instance.

Instance Password

- Provide the password of the ServiceNow instance.

Steps to get Instance URL, username and password:

- In the serviceNow developer page, click on the **Manage instance password** link.

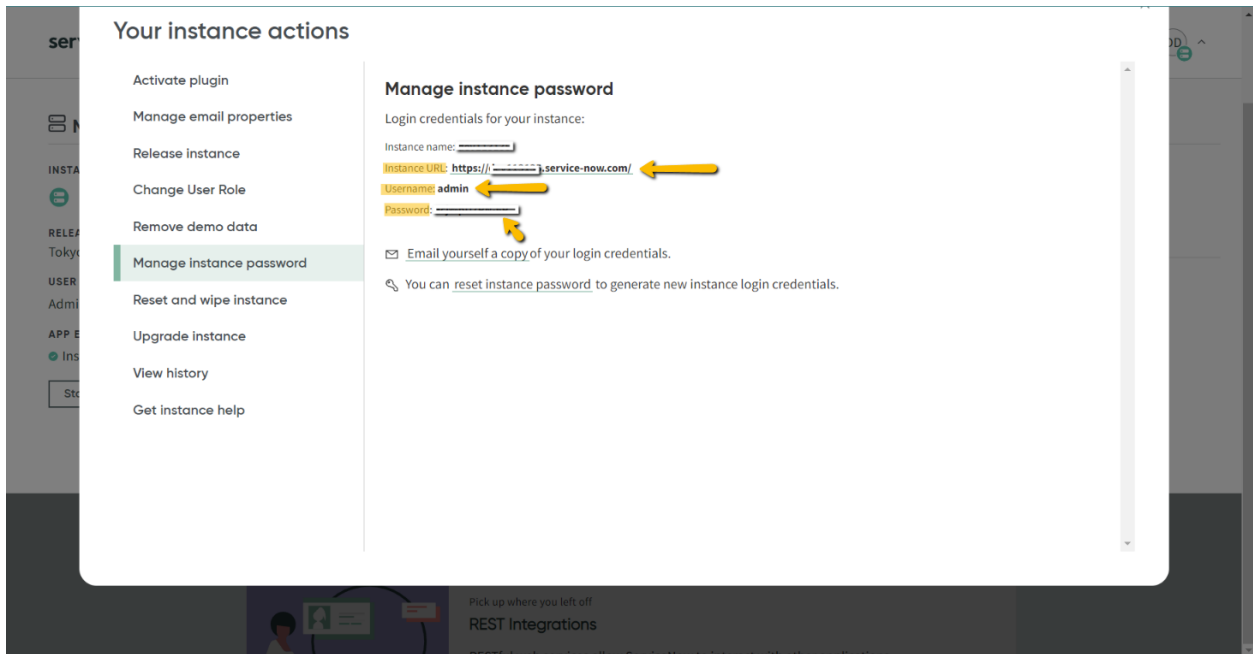
The screenshot displays the ServiceNow Developer portal interface. At the top, the navigation bar includes the ServiceNow logo, 'Developer', and various utility links like 'Learn', 'Reference', 'Guides', and 'Connect'. A search icon and a user profile icon (DD) are also present.

The main content area is divided into two primary sections:

- My Instance:** This section provides a comprehensive overview of the instance. It includes:
 - INSTANCE STATUS:** Shows the instance is 'Online'.
 - RELEASE:** Indicates the instance is in the 'Tokyo' release.
 - USER ROLE:** Shows the user role is 'Admin'.
 - APP ENGINE STUDIO:** Shows it is 'Installed'.
 - INSTANCE ACTION:** A list of management options including 'Activate Plugin', 'Manage Email Properties', 'Release Instance', 'Change User Role', 'Remove Demo Data', 'Manage Instance password' (highlighted in yellow with a yellow arrow), 'Reset and Wipe Instance', 'Refresh Instance', and 'Upgrade Instance'.
 - ACTIVITY:** A note stating 'Instances with no activity for over 10 days will be claimed back in to the pool.'
- My Account:** This section shows the user's profile, including the name 'Dinesh Dhanasekar' and email 'dineshd@vuram.com'. It also includes links for 'View Profile' and 'Sign Out'.

At the bottom of the page, there is a dark grey banner with the text 'Content available for: Tokyo San Diego Rome Quebec' and a 'Learn to build' section featuring a 'REST Integrations' article.

- Here, URL, Username and password of the instance will be displayed. Copy them and use them in the connected system.



Integrations

These are integrations available in this connected system.

Create Incident

Creates a new incident in the incident table of ServiceNow

Input Types for Create Incident

1. Specify values for each input

SNDA_INT_createIncident

Connected System *
SNDA_CS_serviceNowConnectedSystem

Operation *
Create Incident

Creates an Incident Report with the given fields.

Incident Info
Specify values for each input Define all values with a single expression

Name	Type	Value
parent	Text	Example: 9666e0c3c611227c0171673bcebe646
made_sla	Boolean	<input type="radio"/> Yes <input checked="" type="radio"/> No
u_test_column	Text	
caused_by	Text	Example: 9666e0c3c611227c0171673bcebe646
watch_list	Text	Example: 681679cc0a8016401c5a33be04be441
upon_reject	Text	
sys_updated_on	Text	
child_incidents	Number (Integer)	
origin_table	Text	
hold_reason	Text	Select a Value
task_effective_number	Text	
approval_history	Text	
number	Text	

TEST REQUEST

Rule Input Name	Expression	Value
IncidentInfo (Map)	1 +!map(2 short_description:"test", 3 description:"ServiceNow Test" 4	Map short_description:"test" description:"ServiceNow Test"

Set as default test values

Result Request Response

Success!

Time
2,708 ms
Prepare: < 1 ms - Execute: 2,708 ms (Send/Wait/Receive: 2,706 ms) - Transform: < 1 ms

Value: Result

- Dictionary
 - result Dictionary
 - parent "" (Text)
 - made_sla "true" (Text)
 - u_test_column "" (Text)
 - caused_by "" (Text)
 - watch_list "" (Text)
 - upon_reject "cancel" (Text)
 - sys_updated_on "2022-11-09 07:29:22" (Text)
 - child_incidents "0" (Text)
 - hold_reason "" (Text)
 - origin_table "" (Text)
 - task_effective_number "INC0010123" (Text)
 - approval_history "" (Text)
 - number "INC0010123" (Text)
 - resolved_by "" (Text)
 - sys_updated_by "admin" (Text)
 - opened_by Dictionary
 - link "https://dev113135.service-now.com/api/now/table/sys_user/681679cc0a8016401c5a33be04be441" (Text)
 - value "681679cc0a8016401c5a33be04be441" (Text)
 - user_input "" (Text)
 - sys_created_on "2022-11-09 07:29:22" (Text)

2. Define all values with a single expression

SNDA_INT_createIncident

Connected System *
SNDA_CS_serviceNowConnectedSystem

Operation *
Create Incident

Creates an Incident Report with the given fields.

Incident Info
Specify values for each input Define all values with a single expression

GENERATE EXAMPLE EXPRESSION

```
1 r1!IncidentInfo
```

Place cursor on function, rule, or constant to display help

TEST REQUEST

Rule Input Name	Expression	Value
IncidentInfo (Map)	1 +! 2 on:"test", 3 r1!IncidentInfo 4	Map short_description:"test" description:"ServiceNow Test"

Set as default test values

Result Request Response

Success!

Time
2,708 ms
Prepare: < 1 ms - Execute: 2,708 ms (Send/Wait/Receive: 2,706 ms) - Transform: < 1 ms

Value: Result

- Dictionary
 - result Dictionary
 - parent "" (Text)
 - made_sla "true" (Text)
 - u_test_column "" (Text)
 - caused_by "" (Text)
 - watch_list "" (Text)
 - upon_reject "cancel" (Text)
 - sys_updated_on "2022-11-09 07:29:22" (Text)
 - child_incidents "0" (Text)
 - hold_reason "" (Text)
 - origin_table "" (Text)
 - task_effective_number "INC0010123" (Text)
 - approval_history "" (Text)
 - number "INC0010123" (Text)
 - resolved_by "" (Text)
 - sys_updated_by "admin" (Text)
 - opened_by Dictionary
 - link "https://dev113135.service-now.com/api/now/table/sys_user/681679cc0a8016401c5a33be04be441" (Text)
 - value "681679cc0a8016401c5a33be04be441" (Text)
 - user_input "" (Text)
 - sys_created_on "2022-11-09 07:29:22" (Text)

Delete Incident

Deletes an incident in the incident table of ServiceNow

SNDA_INT_deleteIncident SAVE CHANGES 🔍 ⚙️ 👤 appian

Connected System *
 SNDA_CS_serviceNowConnectedSystem ✕

Operation *
 Delete Incident

Deletes all the Incidents having the given Incident number

Incident Number
 rlIncidentNumber

Rule Input Name	Expression	Value
IncidentNumber (Text)	1	INC0010123

[Set as default test values](#)

Result | Request | Response

Success!

Time
 1,959 ms
 Prepare: < 1 ms - Execute: 1,959 ms (Send/Wait/Receive: 1,957 ms) - Transform: < 1 ms

Value: Result

- Dictionary
 - Status "Success" (Text)

TEST REQUEST

Get Incident Fields

Returns metadata of the fields available in the incident table.

SNDA_INT_getIncidentFields SAVE CHANGES 🔍 ⚙️ 👤 appian

Connected System *
 SNDA_CS_serviceNowConnectedSystem ✕

Operation *
 Get Incident Fields

Returns all the available incident fields with their properties.

Result | Request | Response

Success!

Time
 913 ms
 Prepare: < 1 ms - Execute: 913 ms (Send/Wait/Receive: 909 ms) - Transform: < 1 ms

Value

- Dictionary
 - success **true** (Boolean)
 - result Dictionary
 - body List of Dictionary - 93 items
 - Dictionary
 - read_only "false" (Text)
 - name "parent" (Text)
 - label "Parent" (Text)
 - internalType "reference" (Text)
 - mandatory "false" (Text)
 - exampleValue "9666e0c3c611227c017f673bcebef646" (Text)
 - Dictionary
 - read_only "false" (Text)
 - name "made_sla" (Text)
 - label "Made SLA" (Text)
 - internalType "boolean" (Text)
 - mandatory "false" (Text)
 - exampleValue "true" (Text)
 - Dictionary
 - read_only "false" (Text)
 - name "u_test_column" (Text)
 - label "test column" (Text)
 - internalType "string" (Text)
 - mandatory "false" (Text)
 - exampleValue "" (Text)
 - Dictionary
 - read_only "false" (Text)
 - name "caused_by" (Text)
 - label "Caused by Change" (Text)
 - internalType "reference" (Text)
 - mandatory "false" (Text)
 - exampleValue "9666e0c3c611227c017f673bcebef646" (Text)
 - Dictionary
 - read_only "false" (Text)

TEST REQUEST

Read Incident

Returns Incident data with Incident number as input.

The screenshot shows the Appian configuration for the 'SNDA_INT_readSingleIncident' operation. The 'Connected System' is 'SNDA_CS_serviceNowConnectedSystem'. The 'Operation' is 'Read an Incident'. The 'Incident Number' is 'INC0010050'. The 'Fields to be returned' are empty. The 'TEST REQUEST' button is visible at the bottom.

The execution result is shown on the right, indicating a successful operation. The response is a Dictionary with the following structure:

```
Dictionary
  success true (Boolean)
  result Dictionary
    result List of Dictionary - 1 item
      Dictionary
        parent "" (Text)
        made_sla "true" (Text)
        u_test_column "" (Text)
        caused_by "" (Text)
        watch_list "" (Text)
        upon_reject "cancel" (Text)
        sys_updated_on "2022-10-17 11:38:55" (Text)
        child_incidents "0" (Text)
        hold_reason "" (Text)
        origin_table "" (Text)
        task_effective_number "INC0010050" (Text)
        approval_history "" (Text)
        number "INC0010050" (Text)
        resolved_by "" (Text)
        sys_updated_by "admin" (Text)
        opened_by Dictionary
          link "https://dev113135.service-now.com/api/now/table/sys_user/681679cc0a8016401c5a33be04be441" (Text)
          value "681679cc0a8016401c5a33be04be441" (Text)
        user_input "" (Text)
        sys_created_on "2022-10-17 11:38:55" (Text)
        sys_domain Dictionary
          link "https://dev113135.service-now.com/api/now/table/sys_user_group/global" (Text)
          value "global" (Text)
          state "1" (Text)
          route_reason "" (Text)
          sys_created_by "admin" (Text)
          knowledge "false" (Text)
          order "" (Text)
          calendar_stc "" (Text)
```

The screenshot shows the Appian configuration for the 'SNDA_INT_readSingleIncident' operation. The 'Connected System' is 'SNDA_CS_serviceNowConnectedSystem'. The 'Operation' is 'Read an Incident'. The 'Incident Number' is 'INC0010050'. The 'Fields to be returned' are 'number,short_description'. The 'TEST REQUEST' button is visible at the bottom.

The execution result is shown on the right, indicating a successful operation. The response is a Dictionary with the following structure:

```
Dictionary
  success true (Boolean)
  result Dictionary
    result List of Dictionary - 1 item
      Dictionary
        number "INC0010050" (Text)
        short_description "" (Text)
        error null (Null)
        authType Diagnostic
```

Get Incidents in Batches

Lists all the incidents in batches.

SNDA_INT_getIncidents

Connected System *
SNDA_CS_serviceNowConnectedSystem

Operation *
Get Incidents

Returns a batch of Incident info.

Batch Size
ribatchSize
Number of items to be returned.Default:20

Batch Number
ribatchNumber
Number of the Batch to be returned

Sort By
risortBy
Enter the field by which the results are sorted

Is Descending
riisDescending

Rule Input Name	Expression	Value
batchSize (Number (integer))	1	5
batchNumber (Number (integer))	1	2
sortBy (Text)	1	sys_updated_on
isDescending (Boolean)	1	<input checked="" type="radio"/> True <input type="radio"/> False

Result: Request Response

Success!

Time
233 ms

Prepare: < 1 ms - Execute: 233 ms (Send/Wait/Receive: 230 ms) - Transform: < 1 ms

Value

- Dictionary
 - success true (Boolean)
 - result Dictionary
 - result List of Dictionary - 5 items
 - Dictionary
 - parent "" (Text)
 - made_sta "true" (Text)
 - u_test_column "" (Text)
 - caused_by "" (Text)
 - watch_list "" (Text)
 - upon_reject "cancel" (Text)
 - sys_updated_on "2022-10-20 14:17:19" (Text)
 - child_incidents "0" (Text)
 - hold_reason "" (Text)
 - origin_table "" (Text)

TEST REQUEST

Data Source Integration

Returns Incident details in batches for Service Backed records.

SNDA_INT_dataSource

Connected System *
SNDA_CS_serviceNowConnectedSystem

Operation *
Data Source Integration

Get all incidents for record type

Batch Size
ribatchSize
Number of items to be returned.Default:1000

Batch Number
ribatchNumber
Number of the Batch to be returned

Rule Input Name	Expression	Value
batchSize (Number (integer))	1	30
batchNumber (Number (integer))	1	2

Result: Request Response

Success!

Time
435 ms

Prepare: < 1 ms - Execute: 434 ms (Send/Wait/Receive: 419 ms) - Transform: 1 ms

Value

- Dictionary
 - success true (Boolean)
 - result Dictionary
 - body List of Dictionary - 30 items
 - Dictionary
 - parent "" (Text)
 - made_sta "true" (Text)
 - u_test_column "" (Text)
 - caused_by "" (Text)
 - watch_list "" (Text)
 - upon_reject "cancel" (Text)
 - sys_updated_on "2022-10-13 05:45:41" (Text)
 - child_incidents "0" (Text)
 - hold_reason "" (Text)
 - origin_table "" (Text)
 - task_effective_number "INC0010025" (Text)
 - approval_history "" (Text)
 - number "INC0010025" (Text)
 - resolved_by "" (Text)
 - sys_updated_by "Admin" (Text)
 - opened_by Dictionary
 - link "https://dev113135.service-now.com/api/now/table/sys_user/6816f79cc0a8016401c5a33be04be441" (Text)
 - value "6816f79cc0a8016401c5a33be04be441" (Text)

TEST REQUEST

Sync Integration

Returns Incidents which are having the given system Ids in the input.

Connected System *

SNDA_CS_serviceNowConnectedSystem

Operation *

Sync Integration

Get selected incidents

Batch limit

rtbatchLimit

default:1000

Identifiers *

```

1 r!identifiers

```

rtidentifiers

Type: List of Text String

Rule Input Name	Expression	Value
batchLimit (Number (integer))	1	12
identifiers (List of Text String)	1 + { 2 "9c573169c611228700193229fff" 3 4	List of Text String: 1 Item "9c573169c611228700193229fff72400"

Set as default test values

Result Request Response

Success!

Time

272 ms

Prepare: < 1 ms - Execute: 272 ms (Send/Wake/Receive: 270 ms) - Transform: < 1 ms

Value

- Dictionary
 - success true (Boolean)
 - result Dictionary
 - result List of Dictionary - 1 Item
 - Dictionary
 - parent "" (Text)
 - made_sla "false" (Text)
 - u_test_column "" (Text)
 - caused_by "" (Text)
 - watch_list "" (Text)
 - upon_reject "" (Text)
 - sys_updated_on "2022-03-17 20:16:07" (Text)
 - child_incidents "" (Text)

TEST REQUEST