

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 manual IT services. It results in 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 systems can either access through ServiceNow's Authorization code grant or Client Credential grant.

Connected System Configuration

The screenshot shows the 'Connected System Properties' configuration page in ServiceNow. The system is named 'ServiceNow' and is configured for OAuth 2.0. The configuration includes the following fields and sections:

- Name:** SNDA_CS_serviceNowConnectedSystem
- Description:** Connected System for ServiceNow Integration
- System Logo:** Select a PNG image
- ServiceNow Configuration:**
 - Authentication:** ServiceNow (Authorization Code Grant)
 - Instance URL:** https://...service-now.com/
 - Client Id:** 62bc11919db946e38b409412d0baa9fa
 - Client Secret:** ***** (Clear)

At the bottom of the form, there are three buttons: CANCEL, USE IN NEW INTEGRATION, and SAVE.

Client Id

- Provide the client ID from the OAuth Inbound integrations.

Client Secret

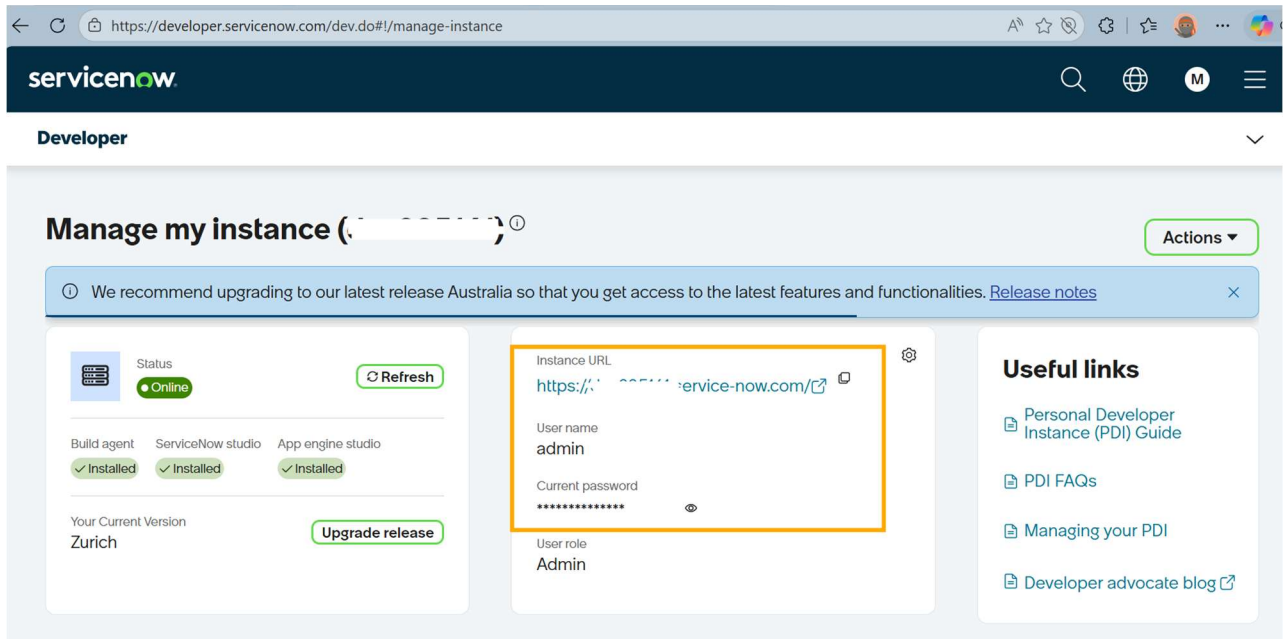
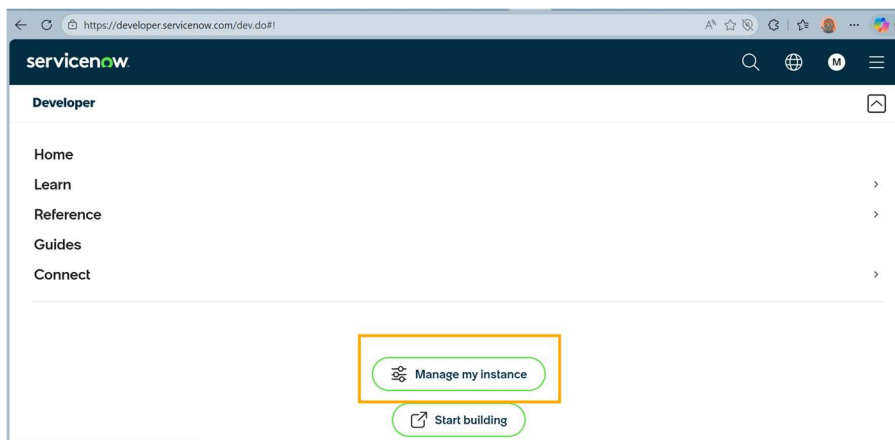
- Provide the client secret from the OAuth Inbound integrations.

Instance URL

- Provide the URL of the ServiceNow instance.

Steps to get Instance URL, Username, Password:

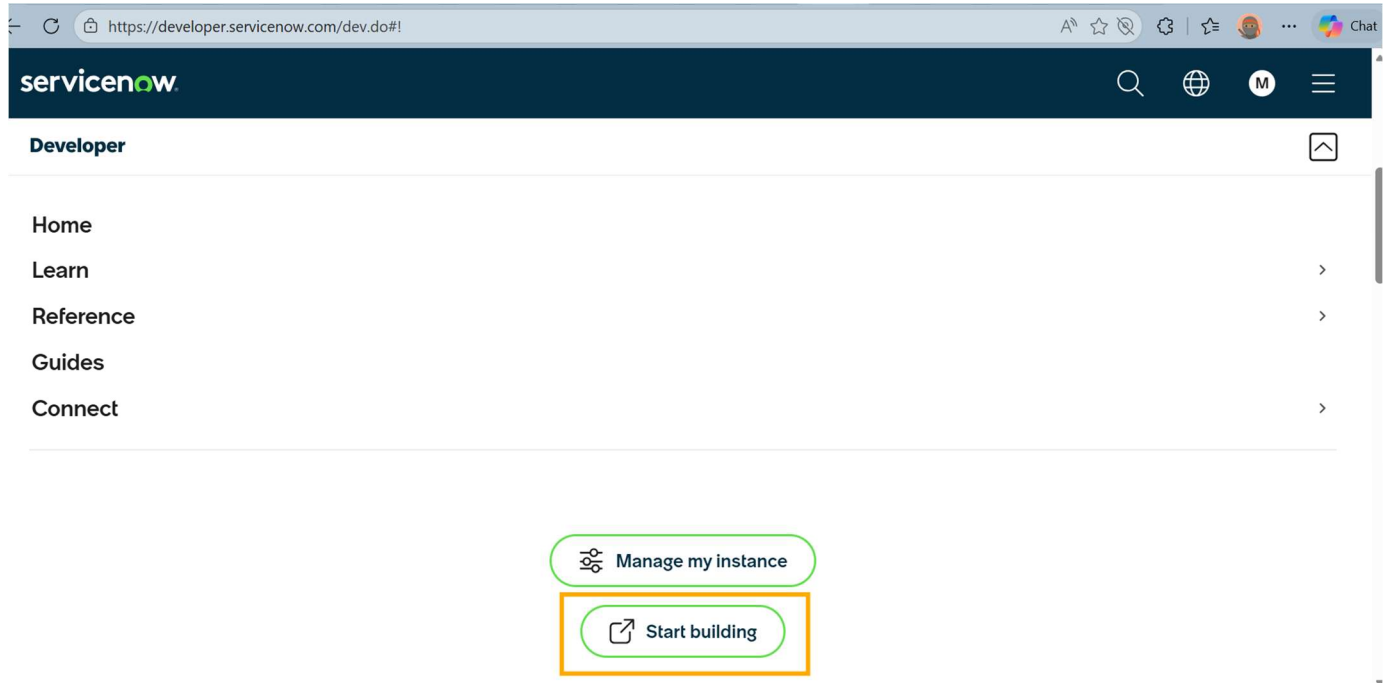
- In the ServiceNow developer page, click on the **Manage instance password** Link.



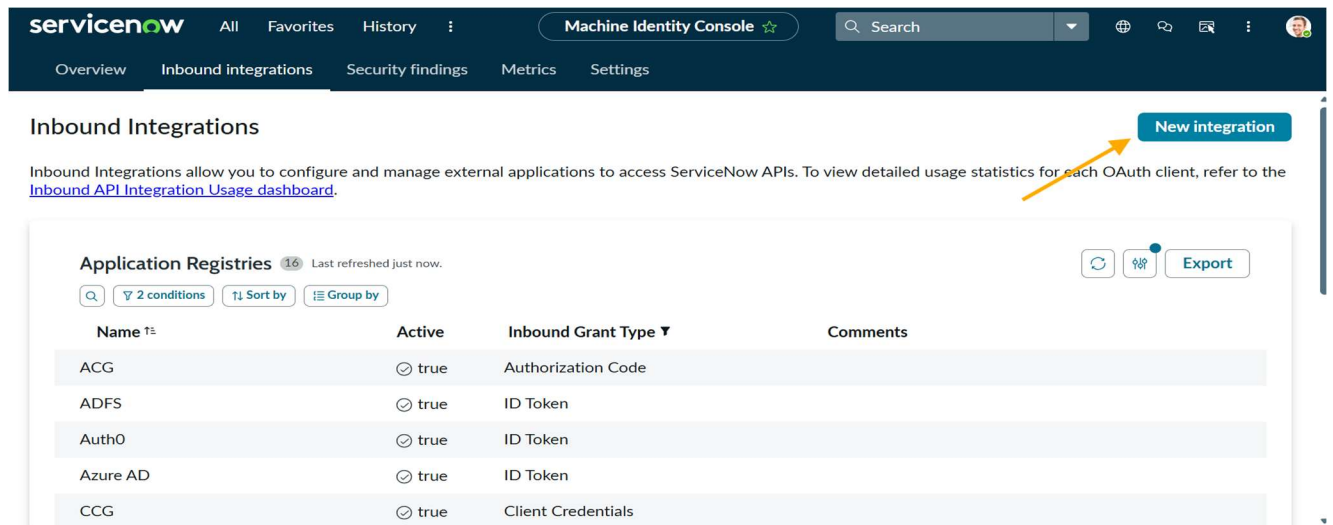
- Here, URL of the instance, username and password will be displayed. Copy them and use them when required.

Connected System - Authorization Code Grant

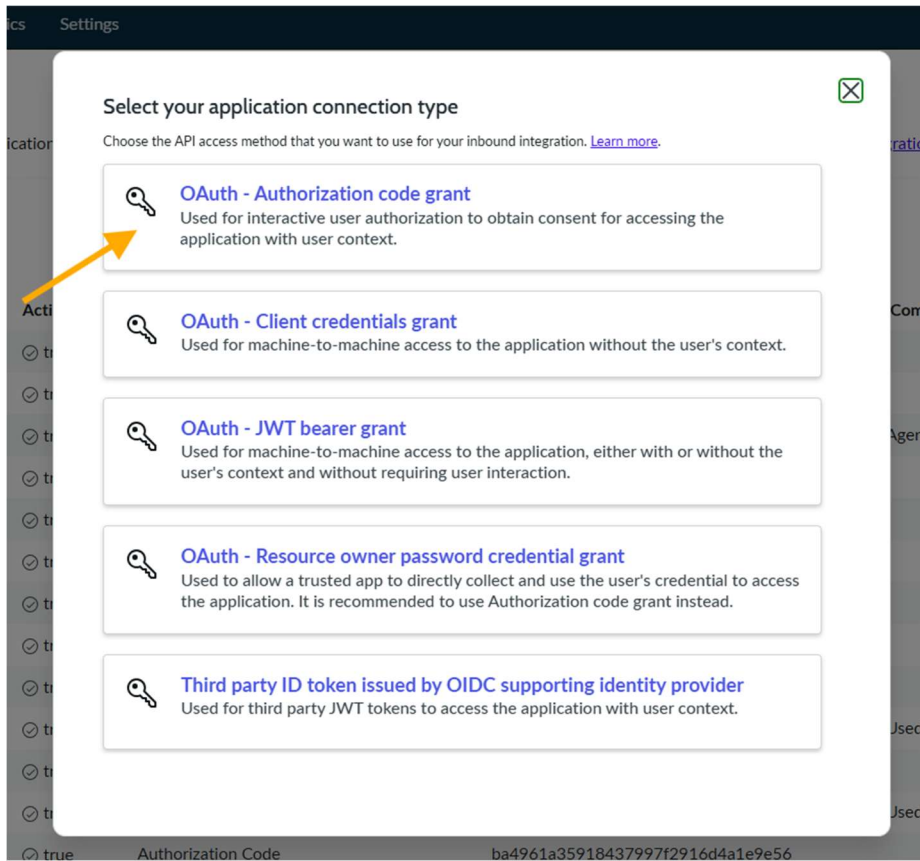
- Create the ServiceNow Connected System (Authorization Code Grant) using the above credentials.
- Login to the ServiceNow Developer Site, then click on the profile icon, then click on the **Start Building** button to open ServiceNow App Engine Studio



- Navigate to **All** → **System OAuth** → **Inbound Integration**
- Click on **New Integration**



- Select the **OAuth Authorization Code grant** as shown below.



- The Client ID and Client Secret text boxes are auto generated when creating a new integration.
- Provide your Appian Environment call back to URL in the Redirect URL text box.
 - Ex: https://<your-appian-env>/suite/oauth/callback

servicenow All Favorites History Workspaces Admin Machine Identity Console Search or ask Now Assist

Overview Inbound Integrations Security findings Metrics Settings

Inbound Integrations > Authorization code grant

New record Cancel Save

Enter the details for this connection. Learn more about OAuth - Authorization code grant.

Details

Name * Provider name

Redirect URLs *

Client ID Client secret

This is a public client Active

Comments

Auth scope

The Auth scope determines the level of access a client has to various APIs, select an Auth scope carefully to avoid unnecessary access to sensitive data.
Key considerations:

- The **useraccount** scope grants access to all resources available to the signed-in user. Use this scope with caution - it is not recommended for most integrations and may introduce security risks.
- Note that editing the value in 'Limit authorization to the following APIs' field affects all clients that share this scope.

Configure auth scopes Create auth scope

- Select “useraccount” under Auth Scope section and click on **Save**.

servicenow All Favorites History Workspaces Admin Machine Identity Console Search or ask Now Assist

Overview Inbound Integrations Security findings Metrics Settings

Client ID Client secret

This is a public client Active

Comments

Auth scope

The Auth scope determines the level of access a client has to various APIs, select an Auth scope carefully to avoid unnecessary access to sensitive data.
Key considerations:

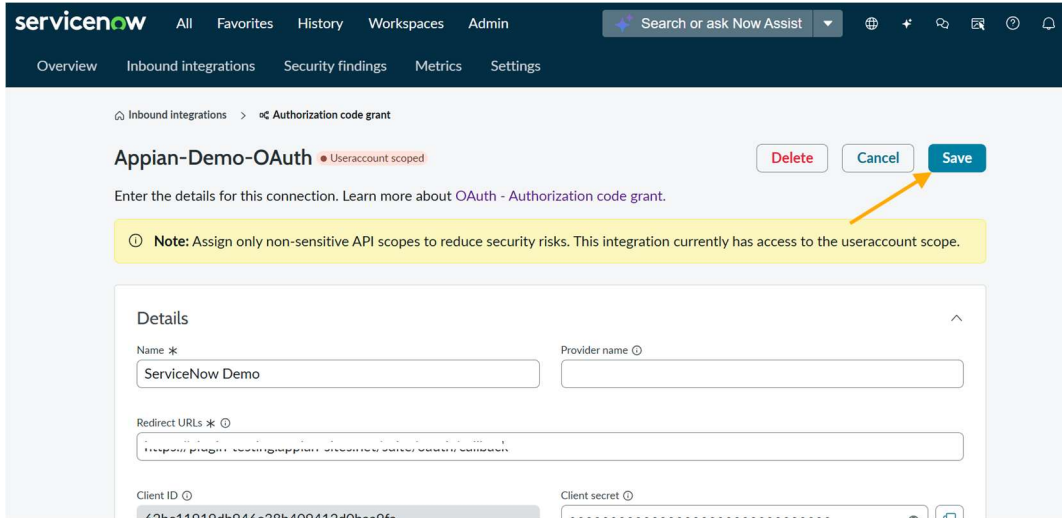
- The **useraccount** scope grants access to all resources available to the signed-in user. Use this scope with caution - it is not recommended for most integrations and may introduce security risks.
- Note that editing the value in 'Limit authorization to the following APIs' field affects all clients that share this scope.

Configure auth scopes Create auth scope

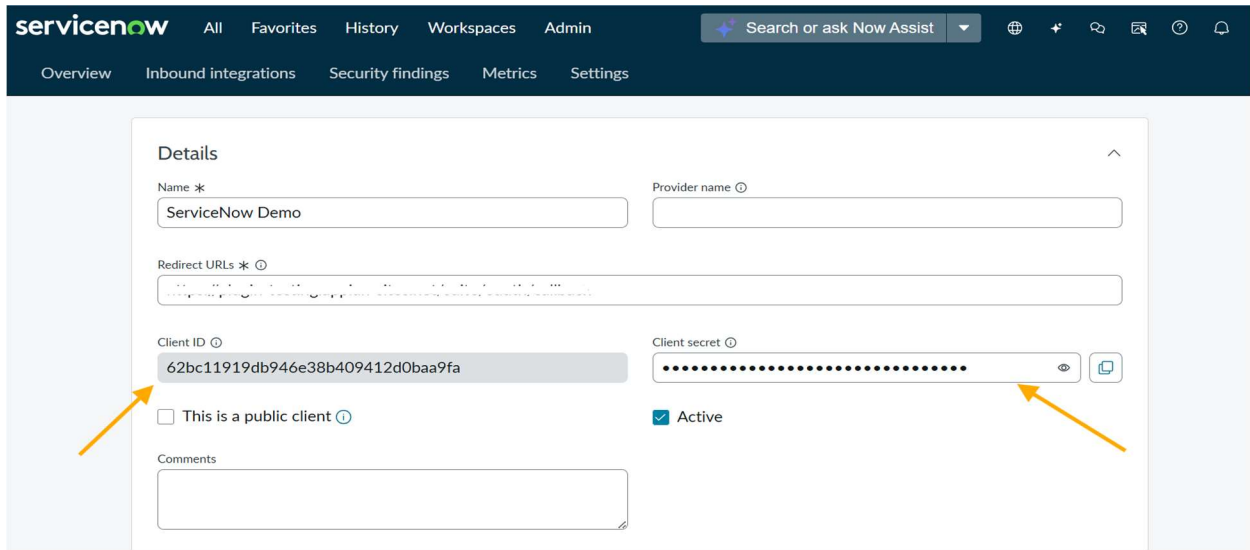
Auth scope Limit authorization to the following APIs

system
a2aauthscope
conversation-insights-service
useraccount
AI Voice

When disabled, the integration may also access APIs that are not added to any of the scopes created in the platform, as long as they are permitted by the user's access controls and API



- Now, under the Inbound Integration, select the created integration and copy the client Id and secret from here.



- Click on “Authorize”

Connected System Properties

ServiceNow Configuration

Authentication

ServiceNow (Authorization Code Grant)

Connected System for connecting to ServiceNow using Authorization code grant.

Copy this redirect URL (callback URL) and use it to register this connected system with the protected resource.

https://plugin-testing.appian-sites.net/suite/oauth/callback

Once registered, enter the properties provided to you by the protected resource to configure this authorization.

Instance URL *

Enter your ServiceNow instance URL. Example: https://devxyz.service-now.com

Client Id *

62bc11919db946e38b409412d0baa9fa

The application ID that the registration portal assigned your app

Client Secret

***** (Clear)

The client secret that you created in the app registration portal for your app

AUTHORIZE

Data Source Shortcut

Show as a shortcut in record type configuration

UUID

_a-0000ef7f-7b00-8000-9bad-011c48011c48_7820

[Copy UUID to clipboard](#)

CANCEL **USE IN NEW INTEGRATION** **SAVE**

- Given ServiceNow portal will be open on the new window for authentication.
- Provide username and password you copied from the manage instance page and Click on Log in.
 - **Note: Ensure the user has Administrator privileges and all required permissions in ServiceNow to perform the operations described in the connected system.**

service-now.com/oauth_login.do

servicenow

User name

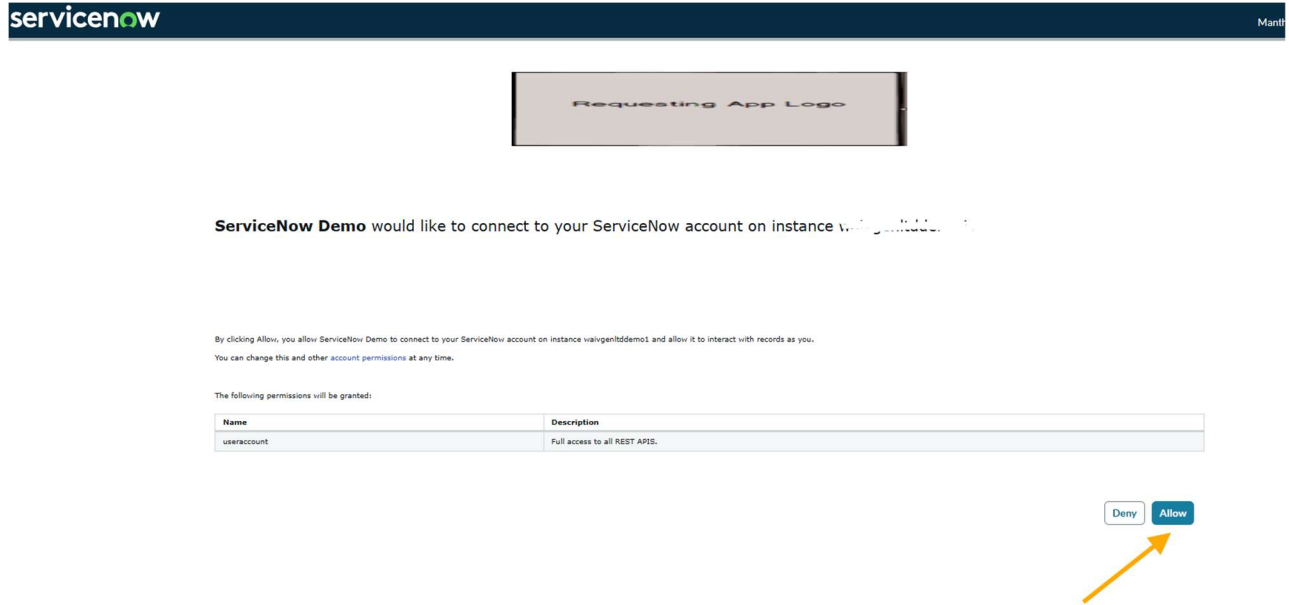
admin

Password

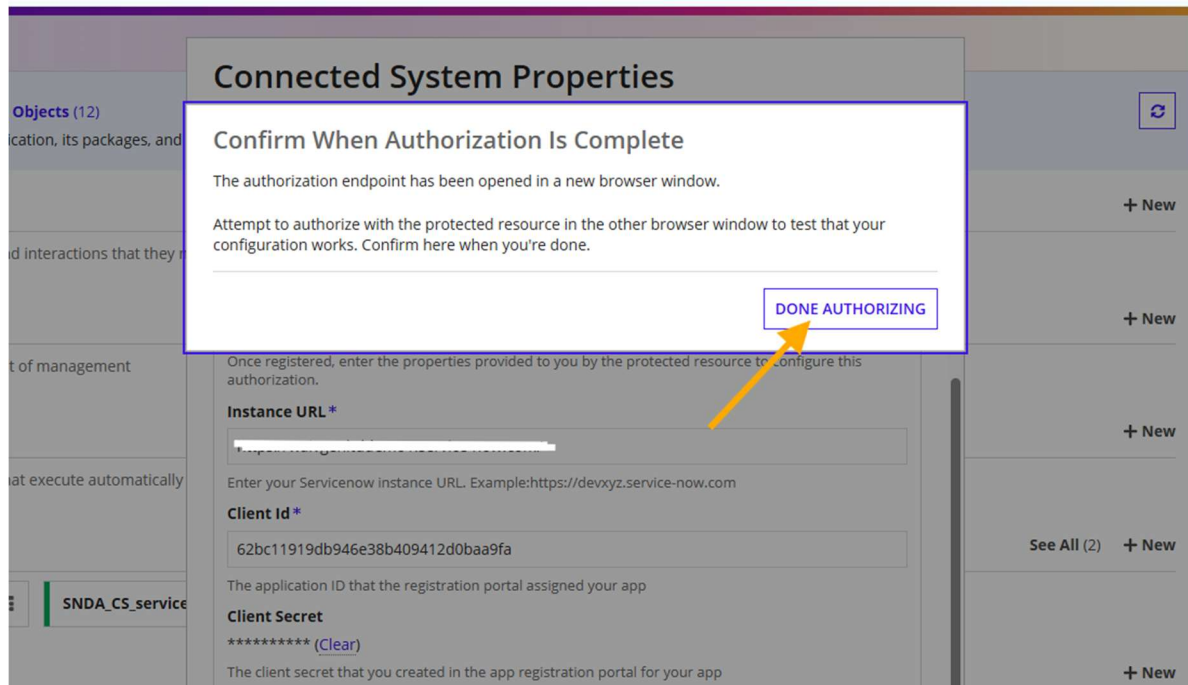
Log in

Forgot Password ?

- Click on “Allow” to grant the permission for mentioned scope in the created integration.

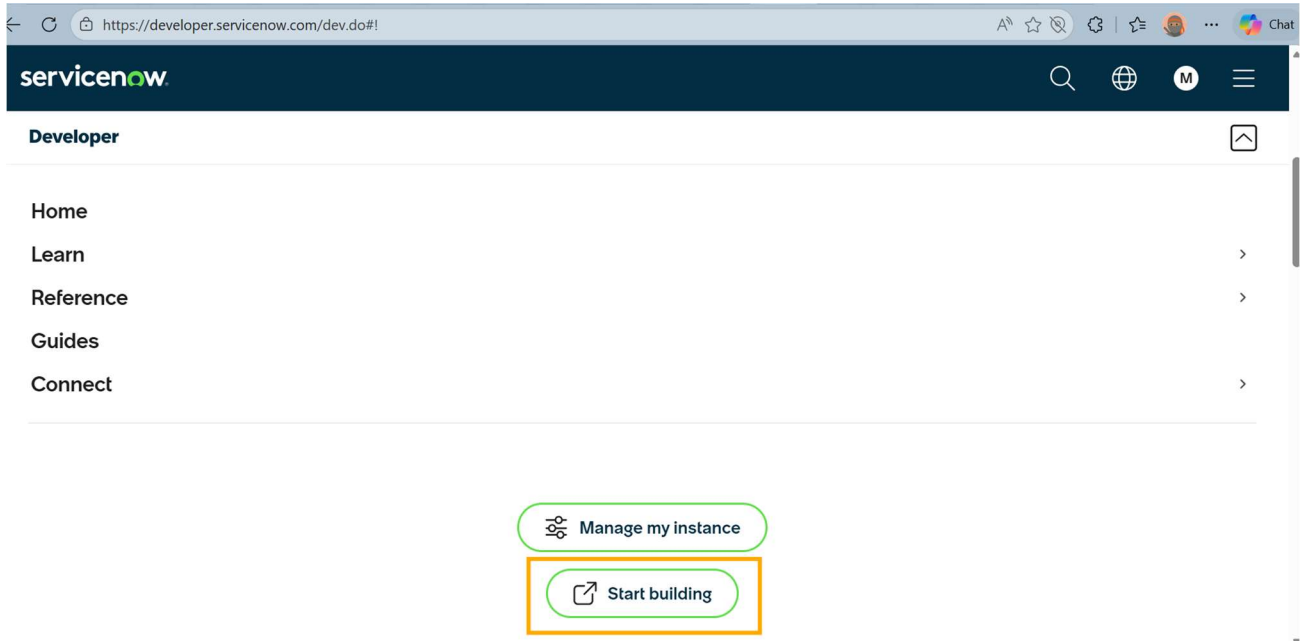


- Click on “Done Authorizing” and verify the Authorization.

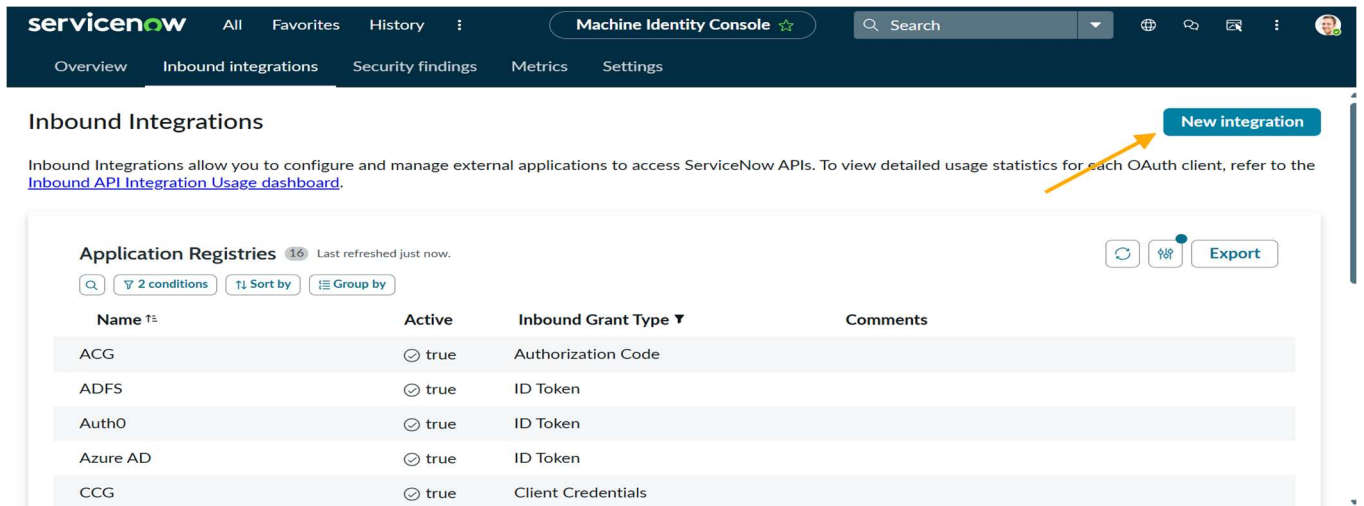


Connected System - Client Credentials Grant

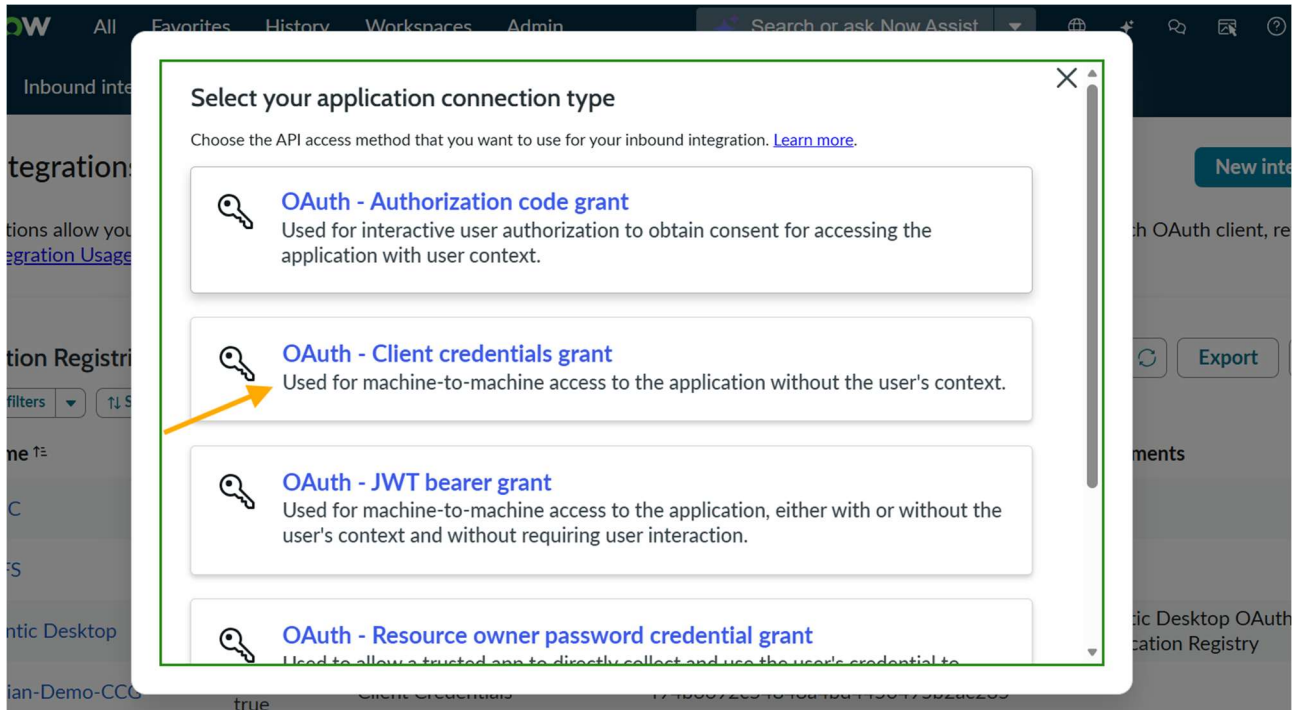
- Create the ServiceNow Connected System (Client Credentials Grant) using the above credentials
- Login to the ServiceNow Developer Site, then click on the profile icon, then click on the **Start Building** button to open ServiceNow App Engine Studio



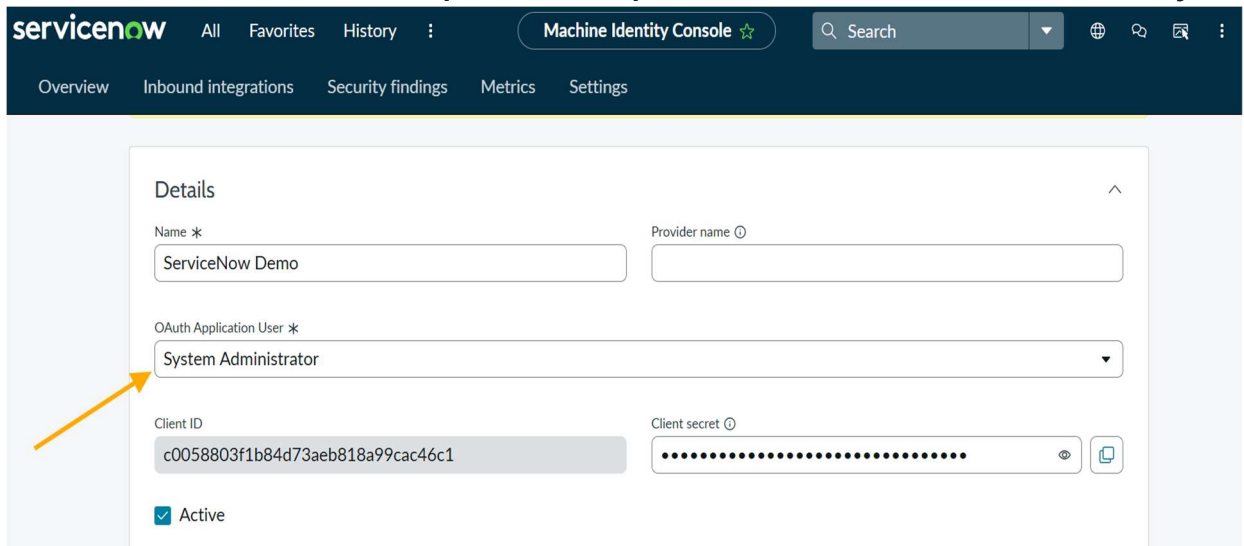
- Navigate to **All** → **System OAuth** → **Inbound Integration**
- Click on **New Integration**



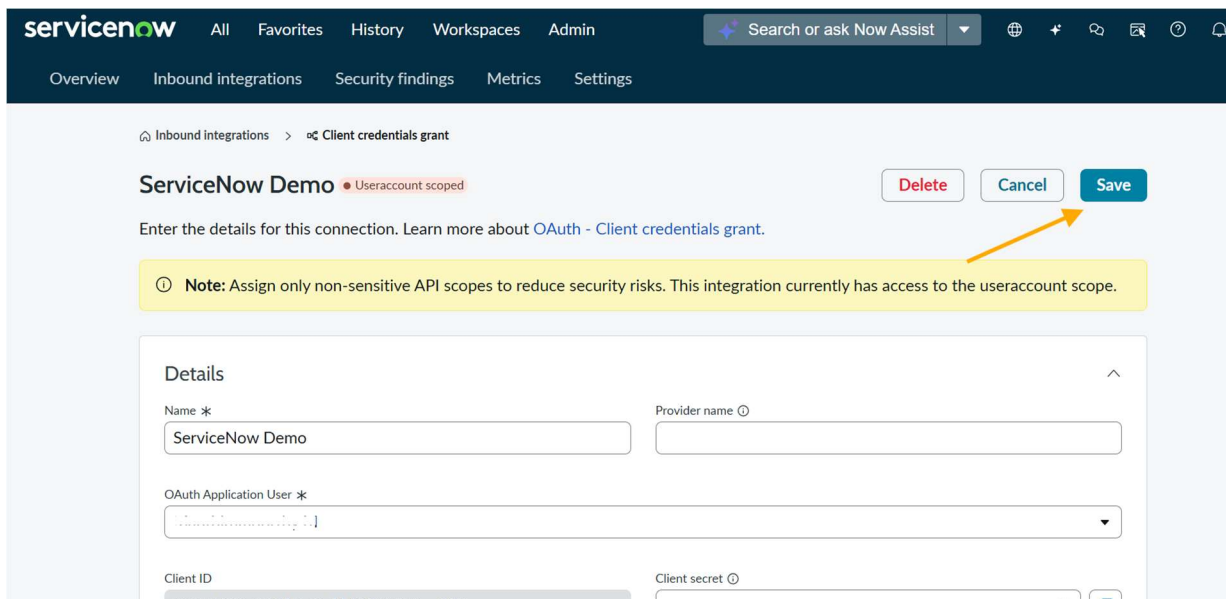
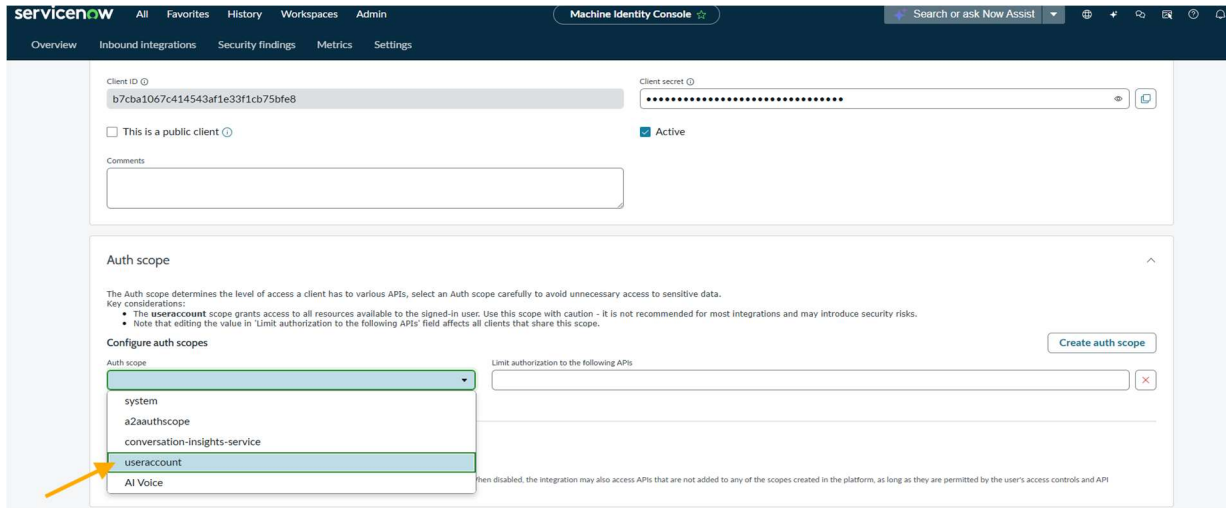
- Select the **OAuth Client credentials grant** as shown below.



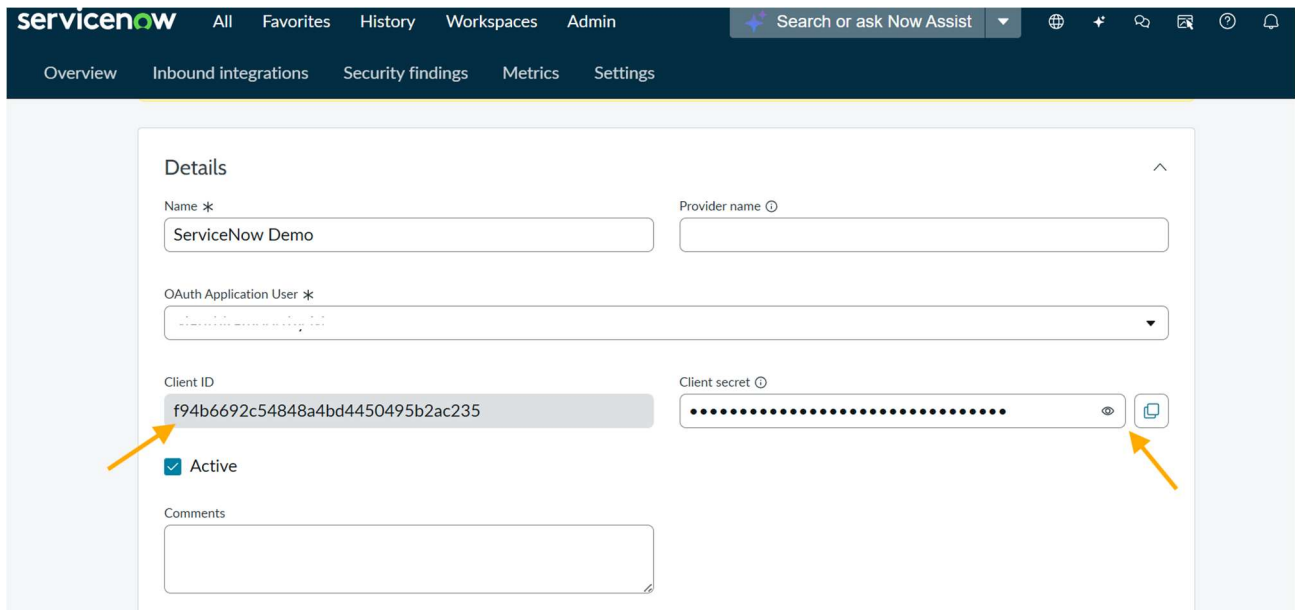
- The Client ID and Client Secret text boxes are auto generated when creating a new integration.
- Pick the ServiceNow System Administrator in the OAuth Application User.
 - **Note: Ensure the user has Administrator privileges and all required permissions in ServiceNow to perform the operations described in the connected system.**



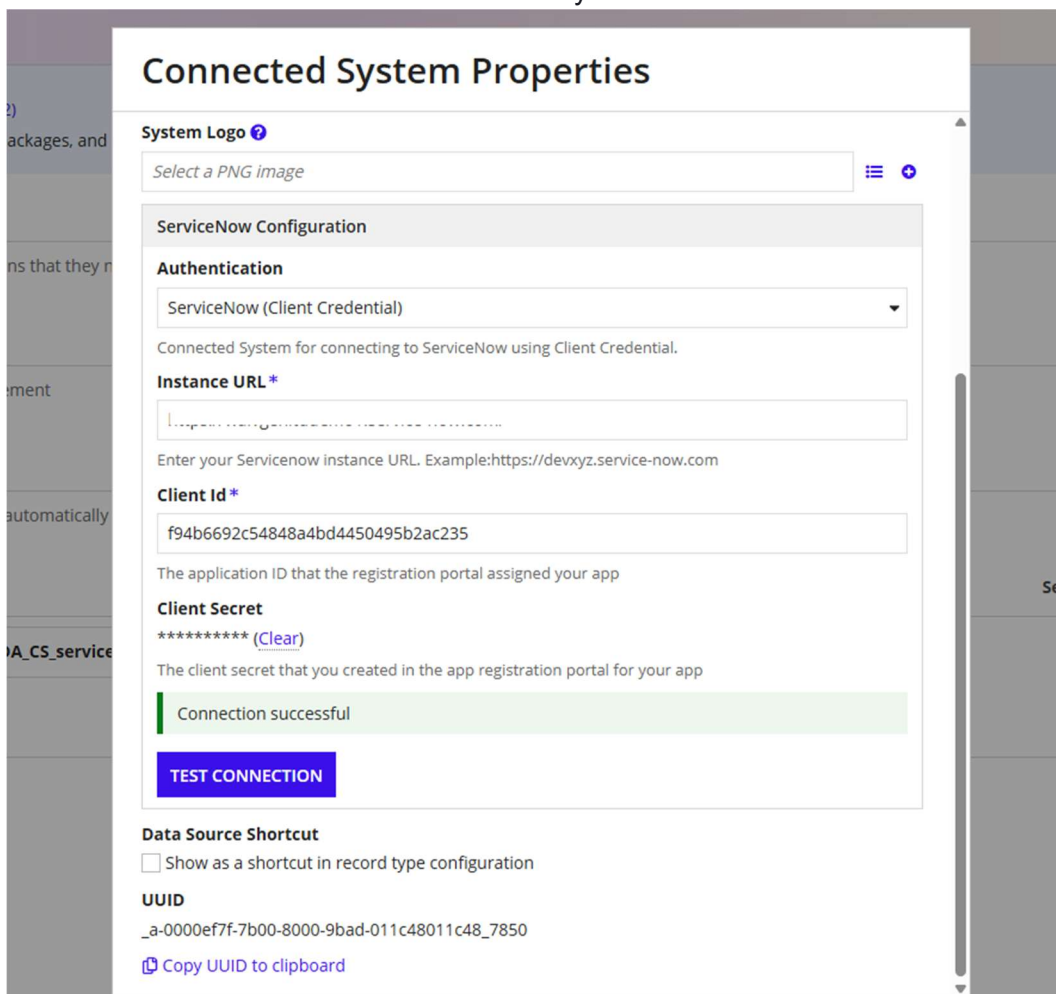
- Select “useraccount” under Auth Scope section and click on **Save**.



- Now, under the Inbound Integration, select the created integration and copy the client Id and secret from here.



- Click on the Test Connection to verify.



Check is “glide.oauth.inbound.client.credential.grant_type.enabled” system property is enabled in your ServiceNow instance, if not please follow the below steps to enable it.

- Navigate to **All** and enter **sys_properties_list.do** and press enter
- Search for the property and Click on the name

Name	Value	Type	Application	Description	Updated	Updated by
glide.oauth.inbound.client.credential.gr...	false	true false	Global		2026-03-26 05:41:39	admin

- Update the value to **true** and Click **Update**

Name: glide.oauth.inbound.client.credential.grant_type.enabled
Application: Global
Type: true | false
Value: true
Ignore cache:

Update

- If the property does not exist. Click **New** to create the new system property

Name	Value	Type	Application	Description	Updated	Updated by
ace.content_blocks.fetch.mode.f80203e4c3...	bfs	string	Omni-Experience Standard Feature Set	CI Console mode to fetch ACE Content Blocks	2022-06-10 08:59:37	admin
actionutils.insertM2M.secure	false	true false	Global	If true, ActionUtils.postInsert() uses G...	2025-05-22 15:12:16	admin
ais_enablemlframework	false	true false	Global	Property to enable the ml compliant fram...	2021-07-28 13:33:46	admin
angular.jsonp.inclusion_list.enabled	true	true false	Global	Toggles whether the angular jsonp inclus...	2020-10-09 12:53:45	admin
angular.jsonp.inclusion_list.urls	self	string	Global	If angular jsonp inclusion list is enabl...	2020-10-09 12:54:26	admin
app.service.persist.list.state	true	true false	Global	Enable feature to save and restore list ...	2019-03-19 01:55:54	admin
assign_topics_for_pre_published_articles	false	true false	Global	Determines whether to map assigned topic...	2024-11-28 04:10:01	admin
auxdb.db.name	auxdb	string	Global	Auxiliary database name	2012-01-24 13:04:12	admin

- Enter **glide.oauth.inbound.client.credential.grant_type.enabled** in Name field
- Select **true|false** in Type field
- Enter **true** in Value field
- Click **Submit**

The screenshot shows the ServiceNow interface for creating a new System Property record. The form includes the following fields and options:

- Name:** glide.oauth.inbound.client.credential.grant_type.enabled
- Application:** Global
- Description:** (Empty text area)
- Choices:** (Empty list)
- Type:** true | false
- Value:** true
- Ignore cache:**
- Private:**

A blue **Submit** button is located in the top right corner of the form, with an orange arrow pointing to it.

Migration Steps:

- If you're upgrading the plugins from version to 2.0.0 or above, follow the steps below to ensure the integration continues to function correctly:
 - Connected System
 - Delete the existing connected system.
 - Create a new connected system using any available authentication type.
 - Update all related dependents to reference the newly created connected system.
 - Integration
 - Delete the existing Create Incident integration.
 - Recreate the Create Incident integration.
 - Update all related dependents to reference the newly created integration.
 - These steps apply only to Create Incident integration. No updates are required for any other integration types.

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

Connected System *
--> SNDA_CS_serviceNowConnectedSystem X

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: 9666e0c3c611227c017f673bcbef6-46
made_sla	Boolean	<input type="radio"/> Yes <input checked="" type="radio"/> No
u_test_column	Text	
caused_by	Text	Example: 9666e0c3c611227c017f673bcbef6-46
watch_list	Text	Example: 6816f79cc0a8016401c5a33be04be441
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	

Rule Input Name | **Expression** | **Value**

Rule Input Name	Expression	Value
IncidentInfo (Map)	<code>+lmap(1 short_description:"test", 2 short_description:"test", 3 description:"ServiceNow Test", 4)</code>	Map short_description:"test" description:"ServiceNow Test"

Result | Request | Response

Success!

Time
2.708 ms
Prepare: < 1 ms · Execute: 2.708 ms (Send/Wait/Receive: 2.708 ms) · Transform: < 1 ms

Value: Result

- 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/6816f79cc0a8016401c5a33be04be441" (Text)
 - value "6816f79cc0a8016401c5a33be04be441" (Text)
 - user_input "" (Text)
 - sys_created_on "2022-11-09 07:29:22" (Text)
 - sys_domain Dictionary

2. Define all values with a single expression

Connected System *
--> SNDA_CS_serviceNowConnectedSystem X

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 +l!IncidentInfo
```

Rule Input Name | **Expression** | **Value**

Rule Input Name	Expression	Value
IncidentInfo (Map)	<code>+l! on:"test", +l!colow Test"</code>	Map short_description:"test" description:"ServiceNow Test"

Result | Request | Response

Success!

Time
2.708 ms
Prepare: < 1 ms · Execute: 2.708 ms (Send/Wait/Receive: 2.708 ms) · Transform: < 1 ms

Value: Result

- 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/6816f79cc0a8016401c5a33be04be441" (Text)
 - value "6816f79cc0a8016401c5a33be04be441" (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

The screenshot shows the Appian interface for the 'Delete Incident' operation. The left sidebar contains the following information:

- Connected System ***: SNDA_CS_serviceNowConnectedSystem
- Operation ***: Delete Incident
- Description**: Deletes all the incidents having the given incident number
- Incident Number**: rtiIncidentNumber

The main workspace displays a table for Rule Input Name, Expression, and Value:

Rule Input Name	Expression	Value
IncidentNumber (Text)	1	INCD010123

Below the table, there is a 'Set as default test values' link. The right pane shows the execution result:

- Result**: 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)

A 'TEST REQUEST' button is located at the bottom right of the interface.

Get Incident Fields

Returns metadata of the fields available in the incident table.

The screenshot shows the Appian interface for the 'Get Incident Fields' operation. The left sidebar contains the following information:

- Connected System ***: SNDA_CS_serviceNowConnectedSystem
- Operation ***: Get Incident Fields
- Description**: Returns all the available incident fields with their properties.

The main workspace displays the execution result:

- Result**: 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_text_column" (Text)
 - label: "text 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)

A 'TEST REQUEST' button is located at the bottom right of the interface.

Read Incident

Returns Incident data with Incident number as input.

The screenshot shows the Appian configuration for the 'Read Incident' operation. The configuration includes the following fields:

- Connected System:** SNDA_CS_serviceNowConnectedSystem
- Operation:** Read an Incident
- Incident Number:** INC0010050
- Fields to be returned:** (Empty)

The response pane shows the following details:

- Time:** 255 ms
- Value:**
 - 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/6816f79cc0a8016401c5a33be04be441" (Text)
 - value: "6816f79cc0a8016401c5a33be04be441" (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 'Read Incident' operation. The configuration includes the following fields:

- Connected System:** SNDA_CS_serviceNowConnectedSystem
- Operation:** Read an Incident
- Incident Number:** INC0010050
- Fields to be returned:** number,short_description

The response pane shows the following details:

- Time:** 223 ms
- Value:**
 - 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.

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_sla "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)

Data Source Integration

Returns Incident details in batches for Service Backed records.

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_sla "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)

Sync Integration

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

The screenshot displays the Appian interface for a rule named 'SND_A_INT_syncIntegration'. The left sidebar shows the rule configuration, including the 'Connected System' (SND_A_CS_serviceNowConnectedSystem), 'Operation' (Sync Integration), 'Batch limit' (1000), and 'Identifiers' (r!identifiers). The main workspace shows the rule's logic, with a table of rule inputs and expressions. The 'batchLimit' is set to 12, and the 'identifiers' are defined as a list of text strings. The right sidebar shows the execution results, indicating a successful run with a response dictionary containing incident details.

Rule input Name	Expression	Value
batchLimit (Number (Integer))	1	12
identifiers (List of Text String)	1 + { 2 "9c573169c611228780193229ffff" 3 4	List of Text String: 1 item "9c573169c611228780193229ffff2400"

Result

Success!

Time
272 ms
Prepare < 1 ms - Execute: 272 ms (Send/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)
 - w_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)