



# **ServiceNow Package Readme**

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**Version 1.1  
04/12/2022**

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# 1. Introduction

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This document contains all essential information for the user to make full use of this A360 ServiceNow Package. It includes a description of the functions and capabilities and step-by-step procedures for setup & configuration.

## 1.1 Overview

This package enables integration of A360 RPA Bots with ServiceNow API features and functionality. The package provides actions to authenticate with ServiceNow, and perform several actions with records and attachments. Further, the package provides triggers to initiate bots from ServiceNow incident creation and updates.

## 1.2 Use cases

The key use cases include:

- Create, Read, Update and Delete records with the Table API
- Add, download and delete attachments on records with the Attachments API
- Trigger specific automations from the creation of new incidents or incident updates
- Stale Ticket Cleanup
- Streamlined Incident response
- Use this package in combination with AARI to provide human-in-the-loop, powerful integrations to ServiceNow that streamline incident management, and improve resolution rates, handling time, multi-hop rates and more.

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## 2. Requirements & Prerequisites

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### 2.1 System Requirements

#### [Enterprise A360 \(Cloud deployed\) and Community Edition device requirements.](#)

Review the machine hardware specifications, operating system versions, and browser types supported by Automation Anywhere Enterprise for creating and running bots and command packages as an Enterprise A360 (Cloud deployed) or Community Edition user on your local machine.

### 2.2 Prerequisites

To get started with the ServiceNow package, the bot creator will need to have access to a ServiceNow account with appropriate permissions for performing the tasks enabled by this package.

For more information on roles, please see the [roles](#) section in ServiceNow documentation.

The package follows ServiceNow guidelines for authenticating an external client with OAuth 2.0. Please refer to the process described [here](#) to retrieve a client ID and client secret for authentication.

Alternatively, to start testing with the package, a user can also create a developer account and developer instance of ServiceNow – learn more [here](#).

It is also highly recommended to use the REST API Explorer in ServiceNow to familiarize with the REST API concepts for ServiceNow. This package requires some knowledge of ServiceNow API terminology and structure of responses.

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## 3. Getting Started

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### 3.1 Quick Start

#### 3.1.1 Setup

Once your client ID and client secret have been retrieved, you are all set! You can use those credentials in the “Start Session” action within the ServiceNow Package to authenticate and subsequently execute any other action in the package.

#### 3.1.2 Configuration and Use

This package contains the following actions:

▼ ServiceNow

▼ Admin

n/w End Session

n/w Start Session

▼ Attachments

n/w Add Attachment

n/w Delete Attachment

n/w Get Attachment

▼ Records

n/w Delete Record

n/w Get Record

n/w Get Multiple Records

n/w Create Record

n/w Modify a Record

n/w Update a Record

Action	Description	Parameters	
<b>Start Session</b>	Starts Session and authenticates with ServiceNow	Session name	Name of session
		ServiceNow URL	Your ServiceNow Instance URL
		Client ID	Client ID Credential
		Client Secret	Client Secret Credential
		User Name	User name for account
		Password	Password
<b>Add Attachment</b>	Adds an attachment to a record	Session name	Name of session
		Table	Name of table where the record resides
		Sys_Id	Sys_id of the record in the target table
		File	File to attach to record
		Output Sys_id	Returns sys_id of the attachment that was created
<b>Get Attachment</b>	Downloads attachment from record	Session name	Name of session
		Sys_Id	Sys_id of file/attachment to download (note: this is NOT the sys_id of the record, but the sys_id of the <i>attachment</i> . Each entity in ServiceNow has a unique sys_id.)
<b>Delete Attachment</b>	Deletes attachment from record	Session name	Name of session
		Sys_Id	Sys_id of file/attachment to download (note: this is NOT the sys_id of the record, but the sys_id of the <i>attachment</i> . Each entity in ServiceNow has a unique sys_id.)
<b>Get Multiple Records</b>	Returns a list of records from a table in ServiceNow	Session name	Name of session
		Table	Table name
		Dictionary – Values to return for each record in list	Enter the dictionary key that you would like to use for the output list of dictionaries. Then enter the ServiceNow key for the value you wish to retrieve (e.g. Dictionary key: "description", ServiceNow key: "short_description" – this will specify each dictionary in the output list to have key

		<p>"description" and it's corresponding value will be the value of the ServiceNow record for "short_description"). See the <a href="#">Table API documentation</a> from ServiceNow for more info on available keys from the response. Also see the example below.</p>	
		Output to List of Dictionaries	Each dictionary in list corresponds to one record, and the dictionary contains the keys specified in the entry list above.
<b>Get Record</b>	Gets details for a single record from a table	Session name	Name of session
		Table	Table name
		Sys_id	Sys_id of record to retrieve
		Dictionary – Values to return for each record in list	Enter the dictionary key that you would like to use for the output dictionary. Then enter the ServiceNow key for the value you wish to retrieve (e.g. Dictionary key: "description", ServiceNow key: "short_description" – this will specify the output dictionary to have key "description" and it's corresponding value will be the value of the ServiceNow record for "short_description"). See the <a href="#">Table API documentation</a> from ServiceNow for more info on available keys from the response. Also see the example below.
		Output to dictionary	The dictionary contains the keys specified in the entry list above.
<b>Create Record</b>	Create new record in a table	Session name	Name of session
		Table	Table name
		Values to include in record	Enter the valid ServiceNow key and the corresponding value in the entry list. For more information on available keys, please refer to the <a href="#">Table API documentation</a> .
		Output sys_id to String	Returns the sys_id of the newly created record in a string variable
<b>Modify Record</b>	Modify record attributes (PUT method)	Session name	Name of session
		Table	Table name
		Sys_id	Sys_id of the record to modify

		Values to include in record	Enter the valid ServiceNow key and the corresponding value in the entry list. For more information on available keys, please refer to the <a href="#">Table API documentation</a> .
		Output sys_id to String	Returns the sys_id of the newly created record in a string variable
Update Record	Updates a record (PATCH method)	Session name	Name of session
		Table	Table name
		Sys_id	Sys_id of the record to modify
		Values to include in record	Enter the valid ServiceNow key and the corresponding value in the entry list. For more information on available keys, please refer to the <a href="#">Table API documentation</a> .
		Output sys_id to String	Returns the sys_id of the newly created record in a string variable
Delete Record	Delete a record	Session name	Name of session
		Table	Table name
		Sys_id	Sys_id
End Session	End session	Session name	Name of session



## Triggers

Action	Description	Parameters	
<b>New Incident</b>	Triggers when a new record is created in the Incident Table	Session name	Name of session
		ServiceNow URL	Your ServiceNow Instance URL
		Client ID	Client ID Credential
		Client Secret	Client Secret Credential
		User Name	User name for account
		Password	Password
		Filter on Priority Level	Select priority level for incidents that should trigger the bot (only incidents created at or above the input priority level will initiate the trigger)
		Interval	Time interval to check for new incidents
		System Clock Buffer	Buffer in seconds to accommodate for slight differences between runner machine's system clock and ServiceNow instance clock. This action checks if an incident was created after the poll timestamp <i>minus the buffer value in seconds</i> .
		Assign output to record	Assign trigger data to a record with keys: triggerType, opened_at, number, description, sys_id and priority
<b>Watch Incident</b>	Triggers when a specified incident is updated (i.e. a new comment is added)	Session name	Name of session
		ServiceNow URL	Your ServiceNow Instance URL
		Client ID	Client ID Credential
		Client Secret	Client Secret Credential
		User Name	User name for account
		Password	Password
		Sys_id	Sys_id of the incident to monitor
		ServiceNow Time Zone	Time zone of ServiceNow instance – this is needed to detect when the update occurred – see ServiceNow documentation to retrieve the system time zone

		Interval	Time interval to check for new incidents
		System Clock Buffer	Buffer in seconds to accommodate for slight differences between runner machine's system clock and ServiceNow instance clock. This action checks if an incident was created after the poll timestamp <i>minus the buffer value in seconds</i> .
		Assign output to record	Assign trigger data to a record with keys: triggerType, updated_at, updated_by, description, comment

### Example of configuring the Get Multiple Records Action:

The example below shows how to set up the action to retrieve up to 15 records from the incident table. Additionally, the output list of dictionaries will have the following keys available: 'number', 'description', 'sys\_id', and 'Open Since'. Each of those values is addressed in the ServiceNow response through the JSON dictionary keys of "number", "short\_description", "sys\_id" and "opened\_at", respectively (see example ServiceNow response below, Figure 2).

Figure 1 – Action Configuration for Get Multiple Records

### ServiceNow: Get Multiple Records

Gets a list of records from the specified table

Required bot agent version: 20.11 or above

Session name

Default

(x)

Table

incident

(x)

Values to Return for Each Dictionary in List (4) (optional)

Dictionary variable key for out...	ServiceNow response key	
number	number	:
description	short_description	:
sys_id	sys_id	:
Open Since	opened_at	:

Add entry

The Output Dictionary Key specified above will be the key used in the output Dictionary variable. The ServiceNow key needs to be obtained from the API documentation for ServiceNow. e.g. Output Dictionary Key: 'description', value: 'short\_description' This will return the value at 'short\_description' in the ServiceNow response and write to the key 'description' in the output Dictionary variable

Limit (optional)

# 15

(x)

Limits the total number of records returned

Encoded Query String (i.e. sysparm\_query) (optional)

active=true

(x)

Encoded query string can be obtained by copying from a list filter in ServiceNow. Please see ServiceNow documentation for more info.  
[https://docs.servicenow.com/bundle/rome-platform-user-interface/page/use/using-lists/concept/c\\_EncodedQueryStrings.html](https://docs.servicenow.com/bundle/rome-platform-user-interface/page/use/using-lists/concept/c_EncodedQueryStrings.html)

Assign output to a list of dictionary variables (optional)

List

(x)

Output Dictionary keys are specified in the entry list

Figure 2 – ServiceNow Response Keys

```
{
  "result": [
    {
      "parent": "",
      "made_sla": "true",
      "watch_list": "",
      "upon_reject": "cancel",
      "sys_updated_on": "2016-01-19 04:52:04",
      "approval_history": "",
      "number": "PRB0000050",
      "sys_updated_by": "glide.maint",
      "opened_by": {
        "link": "https://instance.servicenow.com/api/now/table/sys_user/glide.maint",
        "value": "glide.maint"
      },
      "user_input": "",
      "sys_created_on": "2016-01-19 04:51:19",
      "sys_domain": {
        "link": "https://instance.servicenow.com/api/now/table/sys_user_group/global",
        "value": "global"
      },
      "state": "4",
      "sys_created_by": "glide.maint",
      "knowledge": "false",
      "order": "",
      "closed_at": "2016-01-19 04:52:04",
      "cmdb_ci": {
        "link":
          "https://instance.servicenow.com/api/now/table/cmdb_ci/55b35562c0a8010e01cff22378e0aea9",
        "value": "55b35562c0a8010e01cff22378e0aea9"
      },
      "delivery_plan": "",
      "impact": "3",
      "active": "false",
      "work_notes_list": "",
      "business_service": "",
      "priority": "4",
      "sys_domain_path": "/",
      "time_worked": "",
      "expected_start": "",
      "rejection_goto": "",
      "opened_at": "2016-01-19 04:49:47",
      "business_duration": "1970-01-01 00:00:00",
      "group_list": "",
      "work_end": "",
      "approval_set": "",
      "wf_activity": "",
      "work_notes": "",
      "short_description": "Switch occasionally drops connections",
      "correlation_display": "",
      "delivery_task": "",
      "work_start": "",
      "assignment_group": "",
      "additional_assignee_list": "",
      "description": "Switch occasionally drops connections",
      "calendar_duration": "1970-01-01 00:02:17",
      "close_notes": "updated firmware",
      "sys_class_name": "problem",
      "closed_by": "",
      "follow up": "",
      "sys_id": "04ce72c9c0a8016600b5b7f75ac67b5b",
      "contact_type": "phone",
      "urgency": "3",
      "company": "",
      "reassignment_count": "",
      "activity_due": "",
      "assigned_to": "",
      "comments": "",
      "approval": "not requested",
      "sla_due": "",
      "comments_and_work_notes": "",
      "due_date": "",
      "sys_mod_count": "1",
      "sys_tags": "",
      "escalation": "0",
      "upon_approval": "proceed",
      "correlation_id": "",
      "location": ""
    }
  ]
}
```

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## 4. Support & FAQs

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### 4.1 Support

Free bots are not officially supported. You can get access to Community Support through the following channels:

- You can get access to Community Support, connecting with other Automation Anywhere customers and developers on [APeople](#) – the [Bot Building Forum](#), the [Bot Store Support Forum](#), or the [Developers Everywhere Group](#).
- Automation Anywhere also provides a [Product Documentation portal](#) which can be accessed for more information about our products and guidance on [Enterprise A360](#).

### 4.2 FAQs

For questions relating to Enterprise A360: See the [Enterprise A360FAQs](#).

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## Appendix A: Record of Changes

No.	Version Number	Date of Change	Author	Notes
<b>1</b>	<i>1.0.0</i>	<i>09/20/2021</i>	<i>J Dickson</i>	<i>Initial Release</i>
<b>2</b>	<i>1.1.0</i>	<i>04/12/2022</i>	<i>J Dickson</i>	<i>Minor updates to input types</i>

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## Appendix B: References

No.	Topic	Reference Link
1	Overview of Enterprise A360	Click <a href="#">here</a>
2	Guidance: Building basic A360 bots	Click <a href="#">here</a>
3	Guidance: Building A360 action packages	Click <a href="#">here</a>
4	APeople Community Forum	Click <a href="#">here</a>
5	Automation Anywhere University	Click <a href="#">here</a>