Red Hat Ansible Automation Platform 1.2

TECHNOLOGY PREVIEW Configuring your Ansible Tower infrastructure to communicate with Automation Services Catalog

Installing the Receptor plug-in to connect your Ansible Tower as a source platform for Automation Services Catalog

Last Updated: 2020-12-09

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Abstract

This guide provides instructions on installing the Automation Services Catalog Receptor plug-in in your Ansible Tower environment.

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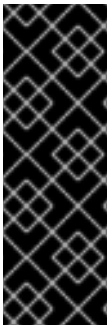
PREFACE

You can connect your on-premise Ansible Tower infrastructure to communicate with Automation Services Catalog by installing the Receptor plug-in.

CHAPTER 1. ABOUT TECHNOLOGY PREVIEW



IMPORTANT

The Receptor plug-in is a Technology Preview feature only. Technology Preview features are not supported with Red Hat production service level agreements (SLAs) and might not be functionally complete. Red Hat does not recommend using them in production. These features provide early access to upcoming product features, enabling customers to test functionality and provide feedback during the development process. For more information about the support scope of Red Hat Technology Preview features, see https://access.redhat.com/support/offerings/techpreview/.

CHAPTER 2. ABOUT THE AUTOMATION SERVICES CATALOG RECEPTOR

The Automation Services Catalog Receptor is a plug-in that allows you to connect an instance of Ansible Tower to the Automation Services Catalog service on cloud.redhat.com. The Ansible Role **catalog_receptor_installer** installs the receptor and plug-in components, and registers the Ansible Tower as a source for Automation Services Catalog.

CHAPTER 3. AUTOMATION SERVICES CATALOG RECEPTOR INSTALLATION WORKFLOW

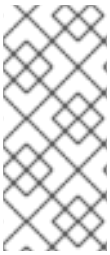
The workflow described in the following sections will run both the **install.sh** script to update the environment and the **install_receptor.yml** Ansible playbook to install and configure the Receptor. Configuring the **install_receptor.yml** playbook requires an application token created in your Ansible Tower instance, which is described below.

Completing the Automation Services Catalog Receptor installation workflow in this guide will result in:

- Registering and updating your RHEL environment to include the required versions of Ansible and Python.
- Adding your Ansible Tower as a Source in cloud.redhat.com.
- Adding an end point for the receptor node.
- Adding Automation Services Catalog as a valid application for the Source.
- Triggering an availability check on the source, which will cause an inventory refresh to run.

3.1. PREREQUISITES

The below tables list the requirements to complete an installation of the Automation Services Catalog Receptor. Ensure you have the required level of access to cloud.redhat.com, Ansible Tower, and a RHEL system that meets the specified requirements.



NOTE

- For RHEL 8 systems, registering with Red Hat Insights **is not required** to successfully complete the Receptor installation.
- You can run the **install.sh** script to register your system and install required versions of Ansible and Python.

Table 3.1. Required permissions

Platform	Permissions
Ansible Tower	System Administrator
cloud.redhat.com	Organization Administrator

Table 3.2. Red Hat Enterprise Linux physical or virtual machine requirements

System	Requirements
Red Hat Enterprise Linux	Red Hat Enterprise Linux (RHEL) 7 Red Hat Enterprise Linux (RHEL) 8 A valid subscription is required.

System	Requirements
Ansible *	Ansible 2.9 or devel
Python *	Python 3.6 or higher

3.2. CREATING AN ANSIBLE TOWER APPLICATION TOKEN

As an Ansible Tower system administrator, you can create the application token linked to a user and required to configure the Automation Services Catalog Receptor plug-in. To create the token, you must first create a new application for Automation Services Catalog in Ansible Tower.

Prerequisites

- You have **System Administrator** permissions for the Ansible Tower instance.

Creating a new application for Automation Services Catalog

1. Log in to your Ansible Tower instance.
2. Navigate to **Adminstration → Applications**.
3. Click .
4. Enter or select the following in the required fields for the **New Application**:
   a. **Name**: Automation Services Catalog.
   b. **Authorization Grant Type**: Resource owner password-based.
   c. **Organization**: Default.
   d. **Client Type**: Confidential.
5. Click **Save**.

Creating the application token for your user

1. Navigate to **Access → Users**.
2. In the **Users** list, click the username to create the token for.
3. Click **TOKENS** in the user profile
4. Click .
5. Under **APPLICATION**, click and select **Automation Services Catalog** from the modal.

6. Click **SELECT**.
7. Under **SCOPE** select **Write** from the drop-down.
8. Click **SAVE**.

The **TOKEN INFORMATION** modal will appear. Copy the **TOKEN** string from the modal and paste in a secure location. You will use it later in the installer configuration.

3.3. RETRIEVING THE AUTOMATION SERVICES CATALOG RECEPTOR INSTALLATION SCRIPT AND PLAYBOOK

Use the **install.sh** script and **install_receptor.yml** playbook to install the Receptor plug-in.

You can retrieve the **install.sh** script and **install_receptor.yml** playbook from the following locations:

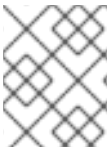
```
$ curl -O
https://raw.githubusercontent.com/mkanoor/receptor_catalog_installer_scripts/master/install.sh
$ curl -O
https://raw.githubusercontent.com/mkanoor/receptor_catalog_installer_scripts/master/sample_playbooks
/install_receptor.yml
```

3.4. SETTING ENVIRONMENTAL VARIABLES FOR USE WITH THE INSTALL.SH SCRIPT

You can use the included **install.sh** to register your system through Red Hat Subscription Manager and install required versions of Ansible, Python, and the Ansible Role.

Prerequisites

The **install.sh** script requires a valid Red Hat username and password. See Red Hat Subscription Management documentation for more information on registering a system.



NOTE

If your RHEL 8 system is already registered with Red Hat Subscription Management run **subscription-manager clean** before running **install.sh**.

Procedure

1. Log in as **root** user.
2. Set environmental variables for your username:

```
# export RHN_USER=<yourusername>
```

3. Set the environmental variable for your password:

```
# export RHN_PASSWORD=<yourpassword>
```

4. (Optional) Set the Red Hat Subscription Management environment URL if you are using a development or testing environment:

```
# export RHSM_URL=your_rhsm_url
```

You have updated the environmental variables for your username, password and RHSM URL that the **install.sh** will use to register your RHEL system.

3.5. CONFIGURING THE INSTALL_RECEPTOR.YML PLAYBOOK

You can install Receptor by running the **install_receptor.yml** file. Configure the playbook to include the application token you created and the location of the Ansible Tower. Include a display name for the Ansible Tower, so you can locate it as a source on cloud.redhat.com.

Procedure

1. Open the **install_receptor.yml** Ansible playbook in a text editor:

```
$ vim install_receptor.yml
```

2. Update the following **vars** parameters:

```
vars:
  tower_url: ansible_tower_url
  tower_token: n87FNA7Fajhghag76gkd
  source_display_name: My Ansible Tower
```

3.6. RUNNING THE UPDATE AND INSTALLATION

You can run the script and playbook once you have finished setting required parameters.

Procedure

Run the **install.sh** script and the **install_receptor.yml** playbook:

```
# ./install.sh sample_playbooks/install_receptor.yml
```

The **install.sh** will register the system and update Ansible and Python, and the **install_receptor.yml** playbook will install the Receptor and connect your Ansible Tower to cloud.redhat.com. The script will then add the Ansible Tower as a platform source for Automation Services Catalog. Once completed, the script will initiate a refresh of inventory. This may take a few minutes to complete.

3.7. VERIFYING THE RECEPTOR INSTALLATION

You can verify that the installation and configuration completed successfully by accessing your account on cloud.redhat.com and reviewing sources and inventory.

Procedure

1. Log in to cloud.redhat.com.
2. Navigate to > **Sources** and refresh the browser.

a. Your newly added Ansible Tower will appear with the **Name** provided in the **install_receptor.yml** playbook.

3. Verify that the **Status** is **Available**.
4. Navigate to Automation Services Catalog > Platforms.
5. Click on your newly added Ansible Tower.
6. Verify that **Templates** and **Inventories** from the Ansible Tower are present.

3.8. UPDATING AN ANSIBLE TOWER APPLICATION TOKEN

In the event you need to replace an Ansible Tower application token, you can update the **receptor.conf** configuration file and restart the service.

Procedure

1. On the Receptor node, navigate to **/etc/receptor/rh_ansible_tower**.
2. Open **receptor.conf** in a text editor.
3. Enter the new token under **[plugin_receptor_catalog]**.

```
[plugin_receptor_catalog]
token=YtzduqUqpzi41nGth1IuZryLM3CjbB
url=https://xxx.xxx.xxx.xxx
verify_ssl=False
```

4. Restart the service.

```
# systemctl restart catalog_receptor@rh_ansible_tower.service
```