Configuring ServiceNow for integration

OnCommand Insight

NetApp
June 10, 2024

This PDF was generated from https://docs.netapp.com/us-en/oncommand-insight/howto/servicenow-integration-elevate-role.html on June 10, 2024. Always check docs.netapp.com for the latest.

Table of Contents

Configuring ServiceNow for integration . . . 1
- About this task . . . 1
- Elevate role . . . 1
- Install update set . . . 1
- ServiceNow integration - Set up user . . . 2
- Install Python and libraries . . . 3
- Setup Python middleware . . . 3
- Syncing the connector . . . 4
- Scheduling synchronization to occur daily . . . 5

Configuring ServiceNow for integration

Integrating ServiceNow with Insight requires several setup tasks.

About this task

The following tasks must be performed when integrating ServiceNow with Insight:

On the ServiceNow side:

- Elevate Role
- Install Update Sets
- Set up users

On the Insight side:

- Add the ServiceNow user

On the Python connector side:

- Install Python
- Install additional libraries
- Initialize the connector
- Edit the config.ini file
- Test the connector
- Synchronize the connector
- Schedule daily task execution

Each of these is explained in greater detail in the following sections.

Elevate role

You must elevate your ServiceNow role to security_admin before you can integrate with insight.

Steps

1. Log into your ServiceNow instance with administrator permissions.
2. Under the **System Administrator** drop-down, choose **Elevate Roles** and elevate your role to security_admin. Click OK.

Install update set

As part of the integration between ServiceNow and OnCommand Insight you must install an Update Set, which loads pre-configured data into ServiceNow in order to provide the connector with specific fields and tables for extracting and loading data.

Steps

1. Navigate to the remote update sets table in ServiceNow by searching for “Retrieved update sets”.
2. Click on **Import Update Set from XML**.
3. The update set is in the Python connector .zip file previously downloaded to your local drive (in our example, the `C:\OCI2SNOW` folder) in the `\update_sets` sub-folder. Click on **Choose File** and select the .xml file in this folder. Click **Upload**.
4. Once the Update Set is loaded, open it and click on **Preview Update Set**.

   If errors are detected, you must correct them before you can commit the Update Set.

5. If there are no errors, click **Commit Update Set**.

   Once the Update Set has been committed it will show on the **System Update Sets** > **Update Sources** page.

ServiceNow integration - Set up user

You must set up a ServiceNow user for Insight to connect with and synchronize data.

About this task

Steps

1. Create a services account in ServiceNow. Login to ServiceNow and navigate to **system security** > **users and groups** > **users**. Click on **New**.
2. Enter a user name. In this example, we will use “OCI2SNOW” as our integration user. Enter a password for this user.

   In this How-to we use a services account user named “OCI2SNOW”`"` across the documentation. You may use a different services account, but be sure it is consistent across your environment.

3. Right-click on the menu bar and click **Save**. This will allow you to stay on this user in order to add roles.
4. Click **Edit** and add the following roles to this user:
   - asset
   - import_transformer
   - rest_service
5. Click **Save**.
6. This same user must be added to OnCommand Insight. Log in to Insight as a user with Administrator permissions.
7. Navigate to **Admin** > **Setup** and click on the **Users** tab.
8. Click the **Actions** button and select **Add user**.
9. For name, enter “OCI2SNOW”. If you used a different user name above, enter that name here. Enter the same password you used for the ServiceNow user above. You may leave the email field blank.

10. Assign this user the **User** role. Click **Save**.

Install Python and libraries

Python can be installed on the Insight server or on a standalone host or VM.

Steps

1. On your VM or host, download Python 3.6 or later.
2. Choose custom installation and choose the following options. These are either necessary for proper connector script operation or are highly recommended.
   - Install launcher for all users
   - Add Python to the PATH
   - Install pip (which allows Python to install other packages)
   - Install tk/tcl and IDLE
   - Install the Python test suite
   - Install py launcher for all users
   - Associate files with Python
   - Create shortcuts for installed applications
   - Add python to environment variables
   - Precompile standard library
3. After Python is installed, install the “requests” and “psnow” Python libraries. Run the following command:
   `python -m pip install requests pysnow`

   NOTE: This command might fail when you are operating in a proxy environment. To work around this issue, you need to manually download each one of the Python Libraries and run the install requests one by one and in the correct order.

   The command will install several files.
4. Verify the Python libraries are installed correctly. Start Python using one of the following methods:
   - Open a cmd prompt and type `python`
   - On Windows, open **Start** and choose **Python** > **python-<version>.exe**
5. At the Python prompt, type `modules`

   Python will ask you to wait a moment while it gathers a list of modules, which it will then display.

Setup Python middleware

Now that Python and the necessary libraries are installed, you can configure the middleware connector to communicate with OnCommand Insight and ServiceNow.

Steps

1. On the host or VM where you downloaded the connector software, open a cmd window as administrator and change to the `\OCI2SNOW\` folder.
2. You must initialize the script to generate an empty **config.ini** file. Run the following command: `oci_snow_sync.pyz init`
3. Open the **config.ini**file in a text editor and make the following changes in the [OCI] section:
   - Set url to <code><a href="https://<name.domain&gt" class="bare">https://<name.domain&gt;</code> or <code><a href="https://<ip" class="bare">https://<ip address></code> for the Insight instance.
   - Set **user** and **password** to the Insight user created, for example, OCI2SNOW.
   - Set **include_off_vms** to **false**
4. In the [SNOW] section, make the following changes:
   - Set **Instance** to the FQDN or ip address for your ServiceNow instance
   - Set **User** and **Password** to the ServiceNow service account user, for example, the OCI2SNOW.
   - Under **Field for the OCI URL**, set the **url** field to “u_oci_url”. This field is created as part of the connector OCI update set. You can change this in the customer environment, but if you do so, you need to modify it here and in ServiceNow. Best practice is to leave this field as is.
   - Set the **filter_status** field to “Installed, In Stock”. If you have a status that is different, you must set that status here in order to get all the records to match with Insight records prior to upload of new records. In most cases this field should remain unchanged.
   - Set **stale_status**to “Retired”.
5. The [Proxy] section is only required if you use a proxy server. If you need to use this section, ensure the following settings:
   - ;https = <a href="http://<host>:<port&gt" class="bare">http://<host>:<port&gt;
   - ;http = <a href="http://<host>:<port&gt" class="bare">http://<host>:<port&gt;
   - ;include_oci = True
   - ;include_snow = True
6. Edit the [Log] section only if you need deeper debug information.
7. To test the connector, open a cmd prompt as administrator and change to the \OCI2SNOW folder. Run the following command: `oci_snow_sync.pyz test`

   Details can be seen in the `logs\` folder.

Syncing the connector

Once ServiceNow, Insight and the connector are properly configured, you can synchronize the connector.

Steps

1. Open a cmd prompt and change to the \OCI2SNOW folder.
2. Run the following command twice. The first sync updates the items, the second sync updates the

relationships: `oci_snow_sync.pyz sync`

3. Verify that the Storage Server table in your ServiceNow instance is populated. Open a storage server and verify that resources related to that storage are listed.

Scheduling synchronization to occur daily

You can use the Windows task scheduler to automatically sync the ServiceNow connector.

About this task

Automatic synchronization ensures that Insight data is regularly moved to ServiceNow. You can use any method for scheduling. The following steps use the Windows task scheduler to accomplish automatic syncing.

Steps

1. On the Windows screen, click **Start** and enter **run** > **task scheduler**.
2. Click **Create Basic Task…**
3. Enter a meaningful name, such as “OCI2SNOW Connector Sync”. Enter a description of the task. Click **Next**.
4. Select to run the task **Daily**. Click **Next**.
5. Choose a time of day to run the task. Click **Next**.
6. For Action, select **Start a program**. Click **Next**.
7. In the **Program/script** field, enter `C:\OCI2SNOW\oci_snow_sync_pyz`. In the **Arguments** field, enter `sync`. In the **Start in** field, enter `C:\OCI2SNOW`. Click **next**.
8. Review the Summary details, and click **Finish**.

   The synchronization is now scheduled to run daily.

Copyright information

Copyright © 2024 NetApp, Inc. All Rights Reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system—without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP “AS IS” AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

LIMITED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (b)(3) of the Rights in Technical Data -Noncommercial Items at DFARS 252.227-7013 (FEB 2014) and FAR 52.227-19 (DEC 2007).

Data contained herein pertains to a commercial product and/or commercial service (as defined in FAR 2.101) and is proprietary to NetApp, Inc. All NetApp technical data and computer software provided under this Agreement is commercial in nature and developed solely at private expense. The U.S. Government has a non-exclusive, non-transferrable, nonsublicensable, worldwide, limited irrevocable license to use the Data only in connection with and in support of the U.S. Government contract under which the Data was delivered. Except as provided herein, the Data may not be used, disclosed, reproduced, modified, performed, or displayed without the prior written approval of NetApp, Inc. United States Government license rights for the Department of Defense are limited to those rights identified in DFARS clause 252.227-7015(b) (FEB 2014).

Trademark information

NETAPP, the NETAPP logo, and the marks listed at http://www.netapp.com/TM are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.