MidPoint Deployment: First Steps [MID301]

Student Lab Guide - Module 2

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Revision 4.8-LTS-A.01, 2023-11-06

This lab guide is not a standalone document and should be used only for the purpose of this training. If there are any questions during the course related to the content of the training or this lab guide itself, do not hesitate to ask the instructor.

If there are any errors, typos or typographic convention mistakes, please report them to the instructor as well. Thank you.

All labs were tested with the midPoint version used during the training.

We assume you have already installed the prerequisites before this training (if there were any).

Disclaimer

The names, organizations and places portrayed in this training course are fictitious. No identification with actual persons (living or deceased), organizations, places or events is intended or should be inferred.

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LAB 2-1: Create HR Resource

Estimated Time: 10 min.

In this lab, we will configure midPoint to connect to HR data exported as CSV file.

In your browser with HR application:

1. click **Show users**
2. click **Export users to csv file**

HR application should display the following message next to the button:

> Successfully exported

Data is exported to a file in HR application server. The file is available for midPoint server using docker *volume*.

In your browser with midPoint:

1. go to **Resources** › **New resource**
2. click **From scratch** tile
3. click **CSV Connector**
4. configure the resource **Basic information**:
   a. **Name**: `HR`
   b. **Lifecycle state**: `Proposed`
5. click **Next: Configuration** button to open **Establish the connection** configuration
   a. **File**: `/opt/midpoint/var/resources/export.csv`
6. click **Next: Discovery** button to open **MidPoint Discovery** configuration:
   a. **Unique attribute**: `empnum`
7. click **Next: Schema** button to open **Schema** configuration:
   a. keep defaults
8. click **Create resource** button
9. click **Preview resource data** tile to list existing accounts in HR
10. click **Back**

We have succeeded in connecting the HR export file. Now we need to create object type configuration in midPoint. As the HR export file contains only one type of records (employees), we will need only one object type definition.

1. click **Configure Object Types** tile
2. click **Add object type** button to create new object type
3. configure Basic information:
   a. **Display name**: `HR Person`
   b. **Kind**: `account`
   c. **Intent**: (keep it empty)
   d. **Default**: `True`
4. click **Next: Resource data** button
5. configure Resource data:
   a. **Object class**: make sure `AccountObjectClass` is selected. This is the only object class supported by the CSV connector (represents CSV rows as accounts)
6. click **Next: MidPoint Data**
7. configure MidPoint data: by this configuration we specify, to which midPoint objects this object type corresponds (and will create in midPoint)
   a. **Type**: select `User`
   b. **Archetype**: do not set yet, we will do it later
8. click **Save settings** button
9. click **Preview data**

At this moment, we have prepared a basic configuration of object type. While previewing HR data, you will notice that there are also non-IT employees (their HR employee numbers start with `8xxx`) - and we wish to ignore such employees.

One possibility would be to modify the HR export mechanism to not include such employees in the export file.

In our case, we will do the configuration in midPoint to show its flexibility (changes in HR export mechanism could take some time).

1. click **Back**
2. click **Basic Attributes** tile
3. click **Next: Resource data**
4. in **Specify the resource data** page, enter the following:
   a. **Filter**: paste the following query:

Skip HR accounts starting with `8` (non-IT personnel):

```
attributes/empnum not startsWith "8"
```

5. click **Next: MidPoint data**
6. click **Save settings**
7. click **Back to object types**
8. click **Exit wizard**
9. click **Go To Resource** tile
10. click **Resource objects** menu item. All HR accounts are displayed here, regardless of (even potentially multiple) object types.
11. click **Reclassify** button and confirm **Yes**
12. reclassification task will be executed in background, processing all HR accounts and update midPoint metada for them
13. click **Accounts** menu item to list all accounts after reclassification
14. accounts starting with `8` should be now hidden from the list as they no longer match the classification filter. midPoint is aware of them, but they are no longer considered "HR Person" (they will not have intent `default` but `kind=unknown` and `intent=unknown`)

We have successfully configured midPoint to connect to the CSV file exported from HR system and even to ignore certain HR records.

The object type definition is by default in `Active` lifecycle state, but the whole resource is still in `Proposed`, which overrides the object type lifecycle state. We will continue the resource configuration and prepare for simulations in the following lab.

LAB 2-2: Configure HR Resource

Estimated Time: 10 min.

In this lab, we will configure HR resource for data import.

In your browser with midPoint:

1. go to **Resources › All resources**
2. edit **HR** resource
3. click **Accounts** menu item
4. click **Configure**, then click **Synchronization** item in the context menu
   a. use **Add reaction** to fill this configuration:

Name	Situation	Action	Lifecycle state
unmatched-add	Unmatched	Add focus	Active
linked-synchronize	Linked	Synchronize	Active

   b. click **Save synchronization settings**
5. The synchronization configuration items are in `Active` lifecycle state, but the whole resource is still in `Proposed`, which overrides the synchronization configurations lifecycle states.
6. click **Configure**, then click **Mappings** item in the context menu
   a. for each attribute, click **Add inbound** button

Name	From resource attribute	Expression	Target	Lifecycle state
empnum-to-name	empnum	As is	name	Active
empnum-to-persNumber	empnum	As is	personalNumber	Active
firstname-to-givenName	firstname	As is	givenName	Active
surname-to-familyName	surname	As is	familyName	Active

7. click **Save mappings**
8. The mappings are in `Active` lifecycle state, but the whole resource is still in `Proposed`, which overrides the mappings' lifecycle states.

As the last step, we will disable any write attempt to the CSV file using resource capabilities, as a precaution.

We will configure the capabilities on the resource level (global). It is also possible to configure the capabilities on object-type level, but we will not use this option now.

1. click **Details** menu item
2. click **Create** tile to disable the `Create` operation for this resource
3. click **Update** tile to open **Update** popup window, then change the following to disable the `Update` operation for this resource:
   a. **Enabled**: `False`
   b. click **OK**
4. click **Delete** tile to disable the `Delete` operation for this resource
5. click **Save** to save resource

From now on, HR resource is now considered read-only. Any attempt to issue create, update or delete operation on the resource would fail with **Operation not supported** error.

This concludes the Module 2 labs.