

Virtual system - New virtual system in 5 minutes

system, virtual, tutorial

What is a virtual system?

A virtual system is a system that can not be directly connected for online management. The reason may be for example the absence of a suitable system connector. The virtual system is basically only a registration mode, where for each system change is generated the implementation request (notification) that is assigned to the particular implementer. This implementer must ensure that the change is made to the target system. In other words, IdM "knows" what the user should have on the system for accounts and permissions, but on the real system this is executed by the implementer (administrator).

What do you need before you start

- You need install CzechIdM 7.4.0 (and higher).
- You need be logged in as 'admin'.
- You need enable 'Virtual system' module.

Create virtual system

You have two options how create virtual system.

The first option - more complex:

1. Manual create IdM system.
2. Use virtual connector.
3. Set virtual connector configurations.
4. Generate system schema.
5. Create mapping for provisioning
6. Create attributes for mapping.

The second option - easier way is to use the automated creation of the virtual system.



This operation do exactly same steps as is described above.

01 - In right main menu select 'Virtual systems / List'.



Now you can see list of all virtual systems in your IdM (in our case we do not have any



virtual system yet):

02 - Click on 'Add' green button to create a new virtual system

- Dialog for the creation of a new virtual system is shown.
- You have to only fill **name** for your new virtual system.
- In our case 'NewVirtualSystem'.
- Click on 'Create system'



You can also fill implementers for this system. If you do not select any implementers (or some roles with implementers), then will be use default role for set implementers (default role is 'superAdminRole').

Creating new virtual system

For create new virtual system fill his name and choose implementers:

Name

Implementers

Roles with implementers

[Cancel](#) [Create system](#)

03 - Check your new virtual system



In this moment the virtual system is created. You can check its configuration:



More information about system configuration, schema and attribute mapping,

[Fix Me!](#)

System configuration:

New Virtual system

System details

Basic information

Configuration

Accounts

Entities

Scheme

Mapping

Synchronization

Provisioning

Connector configuration

Virtual system connector 1.0.1 (czechidm)

Test connector

☒ Required confirmation by the implementer

If is not checked, then all requests will be solved immediately. None notification will be sent to implementers.

Attributes (multi)

firstName

lastName

email

...

Properties for create EAV model.

Implementers

Select or type to search ...

For this implementers will be created realization task. Every implementer must be identity in CzechIdM. Value are UUIDs of identities (multivalue).

Roles of implementers

Select or type to search ...

All identity with this roles will be implementers. Every role must be role in CzechIdM. Value are UUIDs of roles (multivalue).

☒ Supports account disable/enable

System schema:

<https://wiki.czechidm.com/>

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New Virtual system

System details

Basic information

Configuration

Accounts

Entities

Scheme

Mapping

Synchronization

Provisioning

Object in system

System name

New Virtual system

Object name

__ACCOUNT__

Back

Save

Scheme attributes

+ Add

Filter

	Name	Data type	Required	Multivalued	Id
<input type="checkbox"/>	<input type="checkbox"/> email	java.lang.String	<input type="checkbox"/>	<input type="checkbox"/>	0153462
<input type="checkbox"/>	<input type="checkbox"/> __ENABLE__	java.lang.Boolean	<input type="checkbox"/>	<input type="checkbox"/>	28aee96
<input type="checkbox"/>	<input type="checkbox"/> firstName	java.lang.String	<input type="checkbox"/>	<input type="checkbox"/>	95c3290
<input type="checkbox"/>	<input type="checkbox"/> lastName	java.lang.String	<input type="checkbox"/>	<input type="checkbox"/>	b99c315
<input type="checkbox"/>	<input type="checkbox"/> __NAME__	java.lang.String	<input checked="" type="checkbox"/>	<input type="checkbox"/>	eea88da
<input type="checkbox"/>	<input type="checkbox"/> phone	java.lang.String	<input type="checkbox"/>	<input type="checkbox"/>	159530c
<input type="checkbox"/>	<input type="checkbox"/> titleAfter	java.lang.String	<input type="checkbox"/>	<input type="checkbox"/>	acad5ca
<input type="checkbox"/>	<input type="checkbox"/> titleBefore	java.lang.String	<input type="checkbox"/>	<input type="checkbox"/>	33fd800

1 - 8 of 8 records

System provisioning mapping:

New Virtual system

System details

Basic information

Configuration

Accounts

Entities

Scheme

Mapping

Synchronization

Provisioning

Mapping of attributes for IdM entity and operation type

Operation type

Provisioning

Mapping name

Default provisioning

Object name

__ACCOUNT__

Entity type

Identity

☐ Account protection (before delete)

Enables account protection before deletion. When trying to remove an IdM account (last relation assigning this account), it will be marked as 'Is protected'. Such an account will not be deleted or provisioned. To really delete the IdM account (and thus the account on the end system), it will occur after the expiration of the protection interval. Deleting performs a scheduled task.

Length of protection interval (in days)

Back

Save

Mapped attributes for provisioning:

Mapped attributes

+ Add

Filter

<input type="checkbox"/>	Name	IdM key	Identifier	Entity attr.	Extended attr.
<input type="checkbox"/>	<input type="text" value="email"/>	email	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="text" value="__ENABLE__"/>	disabled	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="text" value="firstName"/>	firstName	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="text" value="lastName"/>	lastName	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="text" value="__NAME__"/>	username	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="text" value="phone"/>	phone	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="text" value="titleAfter"/>	titleAfter	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="text" value="titleBefore"/>	titleBefore	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

System synchronization mapping:

TestVirtualSystem

System details

Basic information

Configuration

Provisioning brake

Accounts

Entities

Scheme

Mapping

Roles

Synchronization

Provisioning

Mapping of attributes for IdM entity and operation type

Detail

Operation type

Synchronization

Mapping name

Link virtual accounts to Identities

Object name

__ACCOUNT__

Entity type

Identity

Back

Save and continue

Mapped attributes for synchronization:

Mapped attributes

+ Add

Filter

	Name	IdM key	Identifier	Entity attr.	Extended attr.	Transform from system	Transform to system
<input type="checkbox"/>	<input type="text" value="username"/>	username	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Synchronization:

This synchronization is used for first import to the virtual system. It will pair all entities.

Synchronization configuration

+ Add

Running	Name	Reconciliation	Allowed
<input type="checkbox"/>	<input type="text" value="Link virtual accounts to identities"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



Create new role

- We have created virtual system. Now we want assign system to some user.
- For this we need create new role and create mapping on for new virtual system.

04 - In the left main menu select 'Roles'.

czechidm

Development



admin

Profile

Tasks

Users

Organization

Roles

Systems

Virtual systems

Audit

Notifications

Settings

Roles

Select folder

All roles

Katalog rolí 1

Name	Description	Inactive	Id
<input type="checkbox"/>	<input type="text" value="customRole"/>	<input type="checkbox"/>	bfe7d76
<input type="checkbox"/>	<input type="text" value="manager"/>	<input type="checkbox"/>	9e97127
<input type="checkbox"/>	<input type="text" value="Role pro csv"/>	<input type="checkbox"/>	5844c66
<input type="checkbox"/>	<input type="text" value="Role_test_cílového systému"/>	<input type="checkbox"/>	c93e5cb
<input type="checkbox"/>	<input type="text" value="superAdminRole"/>	<input type="checkbox"/>	500e748
<input type="checkbox"/>	<input type="text" value="userRole"/>	<input type="checkbox"/>	e8db9cd

1 - 6 of 6 records

05 - Click on 'Add' green button to create new role

- Dialog for create new role is shown.

The screenshot shows the 'New role' form in the CzechIDM application. The left sidebar contains a menu with options: Profile, Tasks, Users, Organization, Roles (selected), Systems, Virtual systems, Audit, Notifications, and Settings. The main content area is titled 'New role' and contains the following fields:

- Name:** A text input field containing 'RoleForNewVirtualSystem'.
- Priority level:** A dropdown menu with 'None (0)' selected.
- Priority:** A dropdown menu with '0' selected.
- Folder in catalog:** A dropdown menu with 'Select or type to search ...' as the placeholder.
- Role authorizers:** A dropdown menu with 'Select or type to search ...' as the placeholder.
- Role removal approval:** A checkbox that is unchecked.
- Can be requested:** A checkbox that is unchecked.
- Description:** A large text area.
- Inactive:** A checkbox that is unchecked.

At the bottom right of the form, there are two buttons: 'Back' and 'Save and continue'.

- You have to only fill **name** for your new role.
- In our case 'RoleForNewVirtualSystem'.
- Click on 'Save and continue'.

06 - Create mapping on our virtual system

- On created role select tab 'Systems'.
- Click on 'Add' green button.
- In 'System' field select our virtual system 'NewVirtualSystem'.
- In 'Mapping' field select 'Default provisioning (Identity - Provisioning)'.

The screenshot shows the 'RoleForNewVirtualSystem Role details' page in the CzechIDM application. The left sidebar contains a menu with options: Profile, Tasks, Users, Organization, Roles (selected), Systems, Virtual systems, Audit, Notifications, and Settings. The main content area is titled 'RoleForNewVirtualSystem Role details' and contains the following sections:

- Basic information:** A section with a list of tabs: More information, Permissions, Automatic roles, Users with role, Systems (selected), and Accounts.
- Connected system:** A section with the following fields:
 - Role:** A dropdown menu with 'RoleForNewVirtualSystem' selected.
 - System:** A dropdown menu with 'NewVirtualSystem' selected.
 - Mapping:** A dropdown menu with 'Default provisioning (Identity - Provisioning)' selected.

At the bottom right of the form, there are two buttons: 'Back' and 'Save'.

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- Click on 'Save'.

Create new user

- We have created role connected on our system.
- Now we need to create new user 'john.doe'.

07 - In the left main menu select 'Users'.

08 - Click on 'Create user' green button

In shown dialog fill fields:

- Username = 'john.doe'.
- First name = 'John'.
- Surname = 'Doe'.

The screenshot shows the 'Creating a new user' dialog in the czechidm system. The dialog is titled 'Creating a new user' and contains the following fields and options:

- Login:** john.doe
- First name:** John
- Surname:** Doe
- Titles before:** (empty)
- Titles after:** (empty)
- E-mail:** Users e-mail
- Phone:** Phone number
- Generate password:** (checked)
- New password:** 1pT%IC3g&
- Re-enter new password:** 1pT%IC3g&
- Inactive:** (unchecked)
- Note:** Notes to user

At the bottom right, there are 'Back' and 'Create' buttons.

- Click on 'Create and edit'.

Create account on virtual system

- We have created user, role and virtual system.
- Now we need to assign the role 'RoleForNewVirtualSystem' to the user 'john.doe'.

09 - On detail of 'john.doe' select tab 'Roles'.

- Click on 'REQUEST TO CHANGE ROLES'.

- On new dialog add new role. Click on 'Add' green button.
- In field 'Role name' select our role 'RoleForNewVirtualSystem'.
- Click on 'Set'.
- Click on 'Submit a request'.

Check created request for virtual system


We assigned role with virtual system to user 'john.doe'.

- Request for create new account 'john.doe' on virtual system 'NewVirtualSystem' was created.
- Email notification was created and send on implementers.

10 - We can check request

- In right main menu select 'Virtual systems / Request'.
- You can see list of unresolved request.
- Go to detail for request with UID 'john.doe' and system 'NewVirtualSystem' (click on button with "magnifying glass").
- You can now see request for creating new account.


Detail of request for realization

 Request on virtual system


System name	New Virtual system
UID	john.doe
State	Unresolved
Type	Create
Without confirmation	No
Creator	admin
Created	27.09.2017 16:34:31

Implementers:
[Radek223](#) [Tomiška33](#) (tomiska)

Target state on the system:

 The account is to be created on target system.

Attribute	Target value	Previous value
__ENABLE__		
__NAME__	john.doe	
email		
firstName	John	
lastName	Doe	
phone		
titleAfter		
titleBefore		

 Congratulations you create virtual system and connected him to user.

Admin tutorials

- [Virtual system - adding \(and deleting\) extended attributes managed by CzechIdM](#)
- [Virtual system - creating and using roles](#)

Video Guide

[How to create virtual system](#) - czech language

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