VCloud (VMware) hostprovider

This documentation describes the VCloud (VMware) hostprovider. It allows you to create virtual machines in VCloud.

Version CURRENT Language: EN

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Planning guide

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This page provides information about requirements and limitations of the VCloud hostprovider installation.

Prerequisites

To prepare for the hostprovider installation, complete the following steps:

1. Create a tenant in VCloud.
2. Create a subnet.
3. Ensure that a connection can be established between ADCM and the subnet where the VM will be created.
4. Gain permission to create virtual machines.

Restrictions

In the VCloud (VMware) hostprovider, you can't use all the actions available in the VCloud console. Currently, the hostprovider doesn't support:

- The use of custom initialization scripts.
- External IPs.
- Backup configuration.
- Additional network adapters.

Installation and configuration

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A typical installation sequence for the VCloud (VMware) hostprovider includes the following steps.

Step 1. Download a hostprovider bundle

Hostprovider distributions for ADCM come in bundles. Regarding the VCloud (VMware) hostprovider, a bundle is a regular archive that includes a description and logic to interact with VCloud.

The steps for downloading a bundle are given below:

1. Go to https://network.arenadata.io/ and select ***Arenadata Cluster Manager***.
2. Navigate to ***Infrastructure bundles*** and select the required bundle from the table.

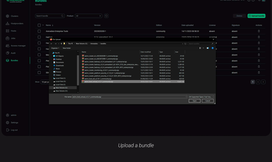
Infrastructure bundles page for ADCM

VCloud (VMware) hostprovider bundle is called ***VCloud provider bundle***.

Step 2. Upload a hostprovider bundle to ADCM

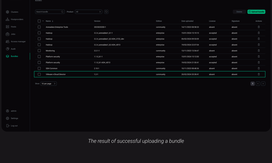
To upload a bundle to ADCM, follow the steps:

1. Select the ***Bundles*** item in the left navigation menu and click ***Upload bundle***.
2. Select a bundle in the Open File Dialog.



Upload a bundle

3. As a result of the performed actions, a bundle is displayed on the ***Bundles*** page.

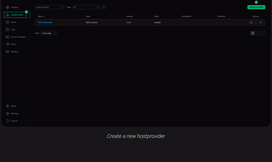


The result of successful uploading a bundle

Step 3. Create a hostprovider based on the uploaded bundle

To add a new hostprovider to ADCM on the base of the uploaded bundle, follow the steps:

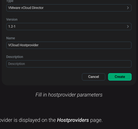
1. Select the ***Hostproviders*** item in the left navigation menu and click ***Create provider***.



Create a new hostprovider

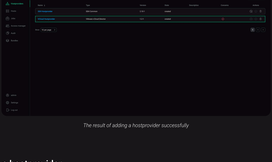
2. In the opened window:

- Select an uploaded bundle in the ***Type*** field.
- Select a bundle version in the ***Version*** field. Several versions become available in the case of different versions of the same bundle being uploaded.
- Enter a hostprovider name in the ***Name*** field.
- Enter a hostprovider description in the ***Description*** field if necessary.
- Click ***Create***



Fill in hostprovider parameters

3. As a result of the performed actions, the created hostprovider is displayed on the ***Hostproviders*** page.



The result of adding a hostprovider successfully

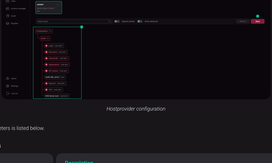
Step 4. Configure a hostprovider

In order to configure the access to the cloud, follow the steps:

1. Select a hostprovider on the ***Hostproviders*** page. To do this, click a hostprovider name in the ***Name*** column. Alternatively, you can hover over the ! icon in the ***Concerns*** column and follow the link in the pop-up window that opens. The icon indicates the presence of critical errors in the current hostprovider configuration (e.g. mandatory fields).

Go to configuring a hostprovider

2. On the opened page, fill in the hostprovider parameters and click ***Save***. The fields highlighted in red are mandatory.



Hostprovider configuration

The assignment of parameters is listed below.

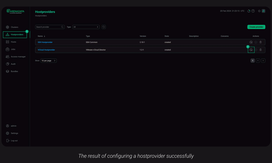
Configuration parameters

Parameter	Description
Login	User login for cloud UI
Password	Password for `Login`
vCloud URL	URL for Cloud UI
Organization	Unique project name
API version	Cloud API version
Verify SSL certs?	Indicates whether to verify the SSL certificates
Network	Name of the network in the project. The network must have a connected Edge Gateway with configured Primary IP (network access is required to update packages during installation)
VDC	Name of the virtual data center (VDC) in the project
DNS Server ipv4	IP of a DNS server to setup custom DNS on newly created hosts

NOTE

It's recommended to create firewall rules and NAT rules for tcp/8000 (HTTP access to ADCM) and tcp/22 (SSH).

3. Return to the ***Hostproviders*** page. As a result, the ! icon stops being displayed in the ***Concerns*** column. The actions available for the configured hostprovider can be opened by clicking the ⚙ icon in the ***Actions*** column.



The result of configuring a hostprovider successfully

Create hosts with VCloud (VMware) hostprovider

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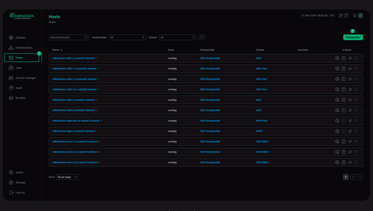
In ADCM, a **host** represents a real hardware or virtual host. It doesn't matter what infrastructure the original host uses – a cloud or bare metal. This topic explains how to add hosts in ADCM using the VCloud (VMware) hostprovider.

IMPORTANT

Before adding hosts in ADCM with the VCloud hostprovider, make sure that it is installed in ADCM.

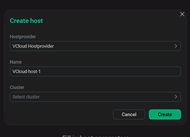
The steps for adding hosts that are based on the VCloud hostprovider are listed below:

1. On the ***Hosts*** page, click ***Create host***.



Create a host

2. In the opened form, select the created VCloud hostprovider in the ***Hostprovider*** field and enter the desired hostname in the ***Name*** field. Click ***Create***.

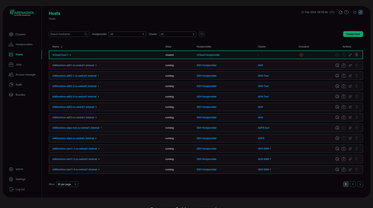


Fill in host parameters

CAUTION

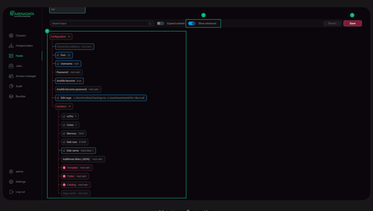
- When creating hosts for the ADH and ADPS products, you should define an FQDN in the ***Name*** field (e.g. `test.ru-central1.internal`). The maximum FQDN length is 38 symbols for ADH and 49 symbols for ADPS.
- For the ADS and ADS Control products, FQDNs are required if the ADPS product is used. The maximum FQDN length for ADS hosts is 48 symbols.
- For the ADQM product, FQDNs are required if Kerberos authentication is used.
- ADB starting with the 6.23.3.44 version supports both FQDN and short host names. For the previous ADB versions, it is not recommended to use FQDNs (as FQDNs cause errors during the ***Expand*** action and a workaround is needed).
- In other cases, both short host names and FQDNs are allowed in the ***Name*** field.

The created host will appear in the host list.



Successful host creation

3. Click the hostname in the ***Name*** column to proceed to configuration. On the opened page, activate the ***Show advanced*** switch, fill in the required parameters, and click ***Save***. The mandatory parameters are highlighted in red.

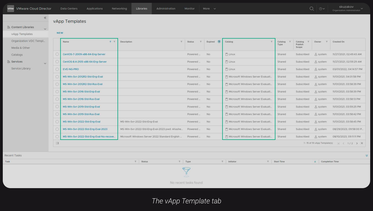


Host configuration

The purpose of all parameters is explained in the table below.

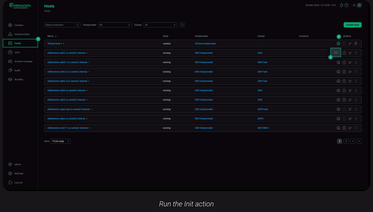
Parameter	Description	Default value
Connection address	An IP address of the host	—
Port	The SSH port	22
Username	A username for connection	root
Password	Password for `Username`	—
Ansible become	Enables the `root` privileges for `Username`	true
Ansible become password	Password to force `root` privileges	—
SSH Args	Additional SSH arguments for Ansible	-o StrictHostKeyChecking=no -o UserKnownHostsFile=/dev/null
vCPU	Number of virtual CPUs	1
Cores	Number of cores on each CPU	1
Memory	RAM size, in MB	1024
Disk size	Disk size, in MB	21456
Disk name	Disk name	Hard disk 1
Additional disks (JSON)	Parameters of additional disks in JSON format, for example: `[{ "name": "Data disk 1", "size": 1024 }, { "name": "Data disk 2", "size": 1024 }]`	—
Template	Name of the disk image, on which the VM will be based	—
Folder	Folder, in which the image is located. Usually, the value is the same as `Template`	—
Catalog	Name of the catalog, where the image is located	—

The values of ***Template*** and ***Catalog*** can be found in VCloud on the ***vApp Template*** tab in the columns ***Name*** and ***Catalog***, respectively.



The vApp Template tab

4. Initialize the host by going to the ***Hosts*** page and launching the ***Init*** action for a configured host.



Run the Init action

Manage hosts with VCloud (VMware) hostprovider

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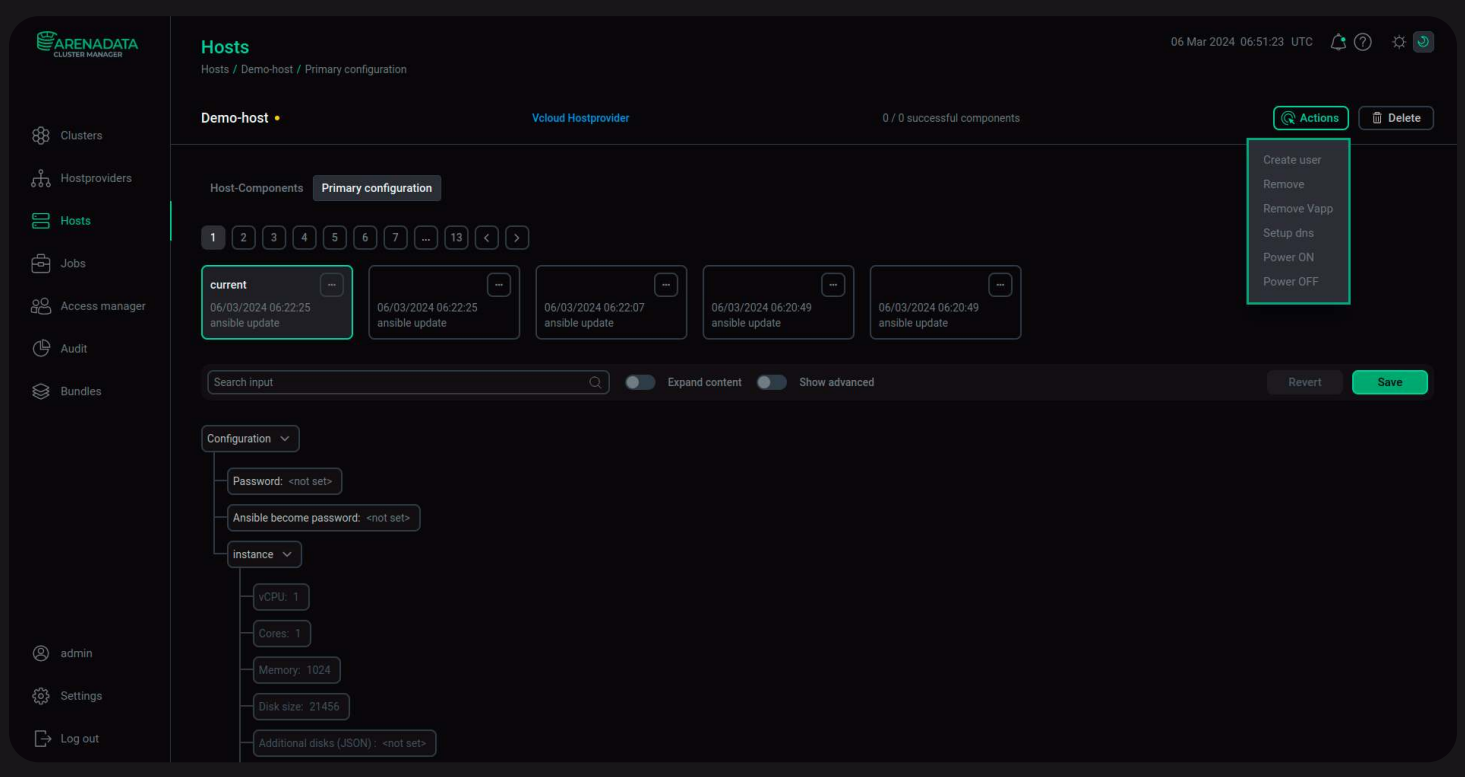
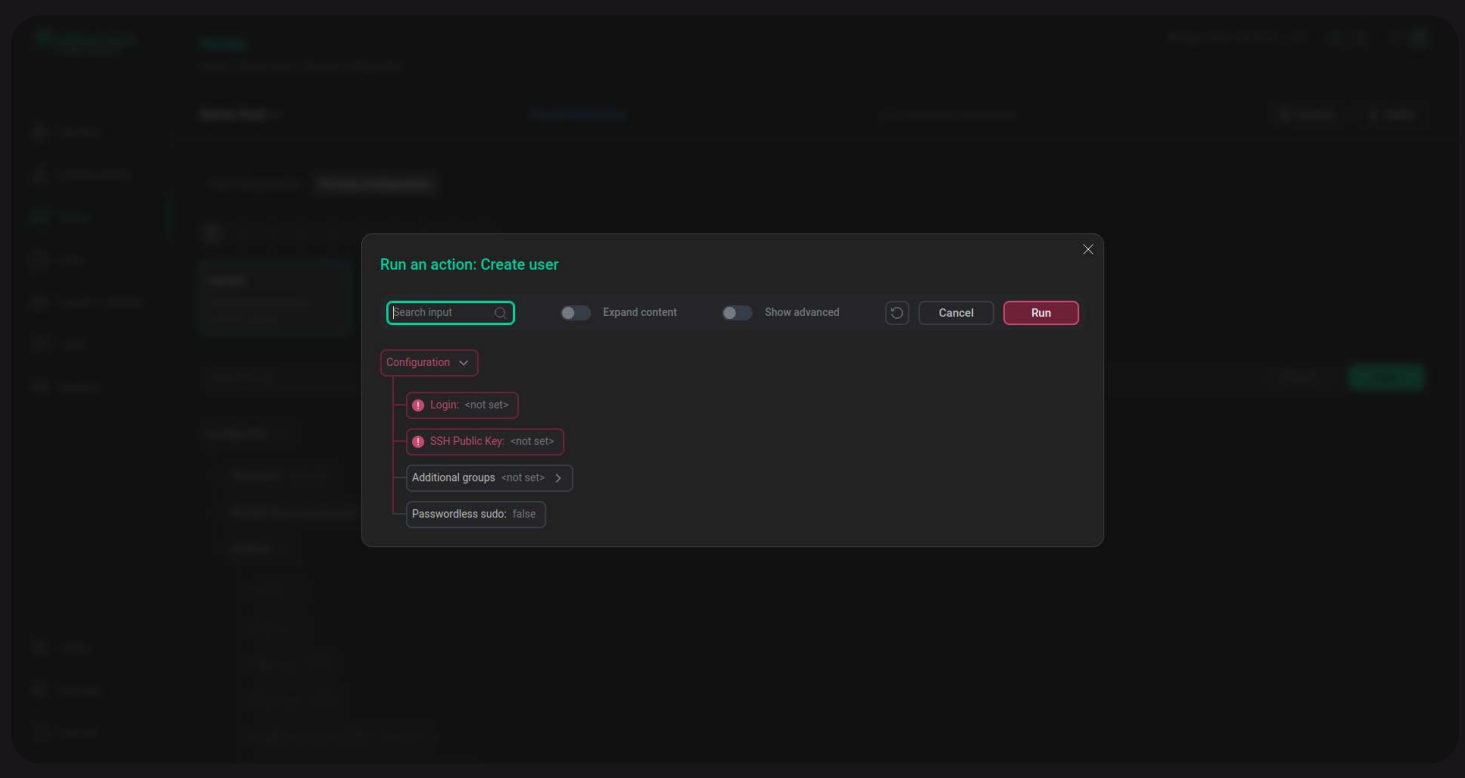
Initialized hosts created with the VCloud hostprovider have a unique set of actions available in ADCM. To launch them, head to the ***Hosts*** page, click on the name of a VCloud host, and click ***Actions***. A drop-down list of available actions will appear.



List of host actions

The following actions are available:

- ***Create user*** — creates a user on a host. This action requires extra parameters, which you can enter in a pop-up window that appears after the action selection. Once the parameters are set, click ***Run*** to confirm the action.



The "Create user" action parameters

Parameter	Description
Login	Name of the user being created
SSH Public Key	A public SSH key for the user being created. It should start with `ssh-rsa`
Additional groups	Linux groups to which the user will be added (optional)
Passwordless sudo	Allows the user to get `sudo` privileges without a password, also the user will be added to the `adcm_sudo` group

- ***Remove*** — deletes the virtual machine from VCloud. Requires confirmation in the pop-up window.
- ***Power ON*** — turns on the virtual machine. Requires confirmation in the pop-up window.
- ***Power OFF*** — turns off the virtual machine. Requires confirmation in the pop-up window.

Release notes

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1.2

Date: 19.12.2023

New features

Added documentation

1.1

Date: 29.12.2022

New features

Initial release