

## Acronis Cyber Cloud Migration from VMware

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## CHAPTER 1 About This Guide

This guide explains how to migrate virtual machines using Acronis Cyber Cloud.

You will need to log in to the portal at https://cloud.acronis.com with your account.

### **CHAPTER 2**

## Deploying the Acronis Agent for VMware from an OVF Template

The migration process will be divided in to four sections:

Before you proceed to deploy one or more agents, take note of the following:

#### Agent system requirements.

By default, a virtual appliance is assigned 4 GB of RAM and 2 vCPUs, which is optimal and sufficient for most operations. It is recommended, however, to let an agent have 8 GB of RAM and 4 vCPUs to improve backup performance if the backup traffic exceeds 100 MB/s (in 10 Gbps networks, for example).

As for storage, appliance virtual disks occupy no more than 6 GB. Thick or thin disk format does not matter as it does not affect the appliance performance.

#### • The number of agents.

Even though one virtual appliance can protect the entire vSphere environment, the best practice is to deploy one virtual appliance per vSphere cluster (or per host, if there are no clusters). This makes for faster backups because the appliance can attach the backed-up disks by using the HotAdd transport and therefore direct the backup traffic from one local disk to another.

You can use both the virtual appliance and Acronis Agent for VMware for Windows at the same time, as long as they are connected to the same vCenter Server or different ESXi hosts. Avoid connecting one agent to an ESXi directly and another to the vCenter Server which manages this ESXi. It is not recommended to use locally attached storage (i.e. storing backups on virtual disks added to the virtual appliance) if you have more than one agent.

• Disable automatic DRS for the agents.

If the virtual appliance is deployed to a vSphere cluster, be sure to disable automatic vMotion for it. In the cluster DRS settings, enable individual virtual machine automation levels, and then set **Automation** level for the virtual appliance to **Disabled**.

# 2.1 Creating an Appliance with the Acronis Agent for VMware

To create an appliance with the Acronis Agent for VMware from an OVF template, do the following:

1. In Acronis Cyber Cloud, click **All devices** > **Add** > **VMware ESXi** > **Virtual Appliance (OVF)**.

The archived template will be downloaded to your machine.

| <b>Virtuozzo</b> Cyber Cloud       | All devices | Add devices                     | × |
|------------------------------------|-------------|---------------------------------|---|
| Manage account                     | Q Search    |                                 |   |
| 🕢 DASHBOARD  5                     | Type Name 🕈 | Windows only                    |   |
|                                    |             | WORKSTATIONS                    |   |
|                                    |             | 4 <b>é</b>                      |   |
| All devices                        |             | Windows Mac                     |   |
| Machines with agents               |             |                                 |   |
| VMware                             |             | SERVERS                         |   |
| Virtuozzo Hybrid<br>Infrastructure | test-VM-01  | <b>П</b> Л                      |   |
| Virtuozzo Migration Demo           | test-VM-01  | Windows Linux                   |   |
| Unmanaged machines                 |             |                                 |   |
| Data protection map                |             |                                 |   |
| PLANS                              |             | VMware ESXi                     |   |
| Powered by Acronis AnyData Engine  |             | Virtuozzo Hybrid Infrastructure |   |

- 2. Unpack the archive. It will contain an OVF file and two VMDK files.
- 3. Make sure that these files can be accessed from the machine running the vSphere Client.

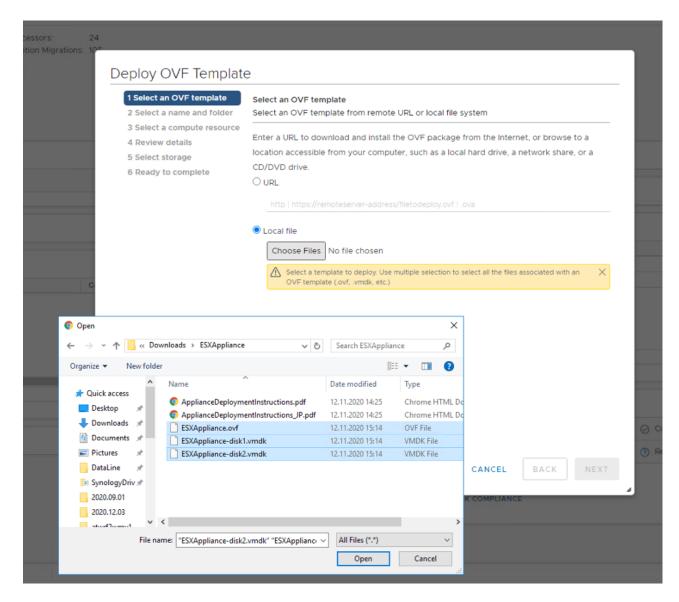
- 4. Start the vSphere Client and log on to the vCenter Server.
- 5. In the vSphere Client, click **Deploy OVF Template** in the **Actions** menu.

The corresponding wizard will open.

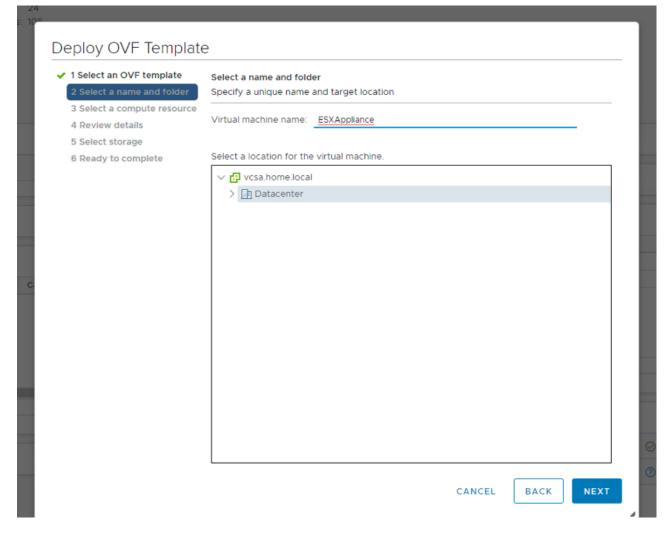
| vm v      | /Sphere Client Menu 🗸          | Q             | Search in all environm | ents        |           |     |            |          |                    |    |
|-----------|--------------------------------|---------------|------------------------|-------------|-----------|-----|------------|----------|--------------------|----|
| Ű         |                                | luster        | ACTIONS -              |             |           |     |            |          |                    |    |
| V 🗗 vcsa. |                                | ary Mor       | itor Configure         | Permissions | Hosts     | VMs | Datastores | Networks | Updates            |    |
|           | atacenter                      |               | otal Processors:       | 24          |           |     |            |          |                    |    |
| ~ 🖸       | Actions - Cluster              |               | otal vMotion Migratio  |             |           |     |            |          |                    |    |
| ſ         | 🚹 Add Hosts                    |               | 🖗 🍇                    |             |           |     |            |          |                    |    |
| Č.        | 🚹 New Virtual Machine          |               |                        |             |           |     |            |          |                    |    |
|           | 😵 New Resource Pool            |               |                        |             |           |     |            |          |                    |    |
| C i       | 🗑 Deploy OVF Template          | $\rightarrow$ |                        |             |           |     |            |          |                    |    |
| é         | New vApp                       | Objects       |                        |             |           |     |            |          |                    | ^  |
| é         | Storage                        | ► center      |                        |             | Datacente | r   |            |          |                    |    |
| 6         | Host Profiles                  | •             |                        |             |           |     |            |          |                    |    |
| é         | Edit Default VM Compatibility. | на            |                        |             |           |     |            |          |                    | ~  |
| Ċ<br>ĉ    | \$ Assign License              | _             |                        |             |           |     |            |          |                    |    |
| é         | Settings                       |               |                        |             |           |     |            |          |                    | ^  |
| ć         | Move To                        | l Tag         |                        | Category    |           |     | Descriptio | n        |                    |    |
| é         | Rename                         |               |                        |             |           |     |            |          |                    | ^  |
| é.        | Tags & Custom Attributes       | •             |                        |             |           |     |            |          |                    |    |
| 6         | Add Permission                 |               |                        |             |           |     |            |          |                    |    |
| é         | Alarms                         | •             |                        |             |           |     |            |          |                    |    |
| Č A       | X Delete                       |               |                        |             |           |     |            |          | No items to displa | ay |
| é         | VSAN                           | Remove        |                        |             |           |     |            |          |                    |    |
| ê<br>ê    | Update Manager                 | esource       | es                     |             |           |     |            |          |                    | ~  |

6. On wizard step #1, select all three files of the template.

#### Chapter 2. Deploying the Acronis Agent for VMware from an OVF Template



7. On wizard step #2, type in a name and choose a location for the appliance.



8. On wizard step #3, choose a destination compute resource.

| Deploy OVF Template   | e   |
|---|---|
| <ul><li>1 Select an OVF template</li><li>2 Select a name and folder</li></ul> | Select a compute resource<br>Select the destination compute resource for this operation |
| 3 Select a compute resource<br>4 Review details                               | V 📑 Datacenter  |
| 5 Select storage  | > 🚺 Cluster   |
| 6 Ready to complete   |   |
|   |   |
|   | Compatibility   |
|   | Compatibility checks succeeded.   |
|   | CANCEL BACK NEXT  |
|   | CHECK COMPLIANCE  |

9. On wizard step #4, review the template details.

| 1 Select an OVF template<br>2 Select a name and folder   |  | ails.   |
|--|--|---|
| <ul> <li>3 Select a compute resource</li> <li>4 Review details</li> <li>5 Select storage</li> <li>6 Select networks</li> </ul> | The OVF package<br>security risk. Revi | e contains advanced configuration options, which might pose a<br>ew the advanced configuration options below. Click next to<br>ced configuration options. |
| 7 Ready to complete  | Publisher                              | No certificate present  |
|  | Description                            | {AB53A0F1-AD54-480f-80BB-FC72DC41DF53}  |
|  | Download size                          | 411.2 MB  |
|  | Size on disk                           | 800.7 MB (thin provisioned)   |
|  |  | 9.0 GB (thick provisioned)  |
|  | Extra configuration                    | disk.EnableUUID = TRUE<br>virtualHW.productCompatibility = hosted   |
|  |  |   |

10. On wizard step #5, select storage for the appliance. If possible, select a shared datastore. The disk format, thick or thin, does not matter as it does not affect the appliance performance.

| Select an OVF template<br>Select a name and folder | Select storage<br>Select the storage for the configuration and disk files |                  |                |             |     |  |  |
|--|---|------------------|----------------|-------------|-----|--|--|
| Select a compute resource<br>Review details        | 0   |                  |                |             |     |  |  |
| Select storage                                     | Encrypt this virtual maching Select virtual disk format:                  | ne (Requires Key | Thin Provision | ~           |     |  |  |
| Select networks<br>Ready to complete               | VM Storage Policy:  |                  | Datast         | ore Default | ~   |  |  |
|  | Name  | Capacity         | Provisioned    | Free        | Тур |  |  |
|  | 🖯 vm  | 34.91 TB         | 24.72 TB       | 22.28 TB    | NF  |  |  |
|  | Vol2  | 911.3 GB         | 688.93 GB      | 505.92 GB   | NF  |  |  |
|  | 🗐 vol3  | 911.3 GB         | 517.13 GB      | 590.12 GB   | NF  |  |  |
|  |   |                  |                |             |     |  |  |
|  | 4   |                  |                |             | Þ   |  |  |
|  | <<br>Compatibility  |                  |                |             | ,   |  |  |
|  |   |                  |                |             |     |  |  |

11. On wizard step #6, select networks for the appliance. The agent will require an Internet connection to register in the cloud.

| <ul> <li>1 Select an OVF template</li> <li>2 Select a name and folder</li> </ul> | Select networks<br>Select a destination network for each source network. |                       |        |   |  |  |  |
|--|--|-----------------------|--------|---|--|--|--|
| <ul> <li>3 Select a compute resource</li> <li>4 Review details</li> </ul>        | Source Network   | T Destination Network | т      |   |  |  |  |
| 5 Select storage   | bridged  | Servers               | ~      | 4 |  |  |  |
| 6 Select networks  |  |                       | 1 item | s |  |  |  |
| 7 Ready to complete  | IP Allocation Settings   |                       |        |   |  |  |  |
|  | IP allocation:   | Static - Manual       |        |   |  |  |  |
|  | IP protocol:   | IPv4                  |        |   |  |  |  |
|  |  |                       |        |   |  |  |  |
|  |  |                       |        |   |  |  |  |
|  |  |                       |        |   |  |  |  |
|  |  |                       |        |   |  |  |  |
|  |  |                       |        |   |  |  |  |
|  |  |                       |        |   |  |  |  |
|  |  |                       |        |   |  |  |  |
|  |  |                       |        |   |  |  |  |
|  |  |                       |        |   |  |  |  |

12. On wizard step #7, click **Finish** to create the appliance.

| <ul> <li>1 Select an OVF template</li> <li>2 Select a name and folder</li> </ul> | Ready to complete<br>Click Finish to start creatio | n.                                    |
|--|--|---------------------------------------|
| <ul> <li>3 Select a compute resource</li> <li>4 Review details</li> </ul>        |  |                                       |
| ✓ 5 Select storage   | Provisioning type                                  | Deploy from template                  |
| 6 Select networks  | Name   | ESXAppliance                          |
| 7 Ready to complete  | Template name                                      | ESXAppliance                          |
|  | Download size                                      | 411.2 MB                              |
|  | Size on disk                                       | 800.7 MB                              |
|  | Folder   | Datacenter                            |
|  | Resource   | Cluster                               |
|  | Storage mapping                                    | 1                                     |
|  | All disks  | Datastore: vm; Format: Thin provision |
|  | Network mapping                                    | 1                                     |
|  | bridged  | Servers                               |
|  | IP allocation settings                             |                                       |
|  | IP protocol  | IPV4                                  |
|  | IP allocation                                      | Static - Manual                       |

## 2.2 Configuring the Acronis Agent for VMware

After creating the agent appliance, start it. In the vSphere Client, open **Inventory**, right-click the appliance name, and then select **Power On**. Select the **Console** tab.

The console to the appliance virtual machine will open.

| VZ_ESXAppliance - VMware Remote Console |   |           |       |           |         |
|---|---|-----------|-------|-----------|---------|
| VMware Remote Console                   | ▼      - 母 □  | ≫ 📮       | E.    | E.        | 5       |
| Agent for VMware                        | (Virtual Appliance)   |           |       | >         | < _     |
| Agent for VN                            | /Iware (Virtual Appliance)  |           |       |           |         |
| Specify the require<br>web console.     | ed parameters below. After the agent is configured, the virtual machines  | will appe | ar in | the       |         |
| Agent status: T                         | 'he agent is connected to vCenter/ESX(i) server '1                        |           |       |           |         |
| AGENT OPTIONS                           |   |           |       |           |         |
| vCenter/ESX(i):                         | Connected<br>Server name/IP: 1<br>User name: a visit of r@vsphere.local   | Cha       | ange. |           |         |
| Management<br>Server                    | Registered<br>Server name/IP: https://us5-cloud.acronis.com<br>User name: | Cha       | ange. |           |         |
| eth0                                    | Address type: Assigned by DHCP<br>IP address: 1                           | Cha       | ange. |           |         |
| VIRTUAL MACHINE                         |   |           |       |           |         |
| Name:                                   | 1   | Cha       | ange. |           |         |
| (i) About                               | Turn O  | ff F      | Rebo  | ot<br>EN- | )<br>US |

Configure the agent as follows:

- 1. (Optional) Configure a proxy server if you have one in your network:
  - 1.1. Start the command shell by pressing CTRL+SHIFT+F2 while in the virtual appliance UI.
  - 1.2. Edit the following section in the file /etc/Acronis/Global.config:

| <key name="HttpProxy"></key>                             |  |
|--|--|
| <value name="Enabled" type="Tdword">"1"</value>          |  |
| <value name="Host" type="TString">"ADDRESS"</value>      |  |
| <value name="Port" type="Tdword">"PORT"</value>          |  |
| <value name="Login" type="TString">"LOGIN"</value>       |  |
| <value name="Password" type="TString">"PASSWORD"</value> |  |
|  |  |
|  |  |

If the section is missing, copy and paste it to the file inside the <registry name="Global">...</registry> tag.

- 1.3. Replace ADDRESS with your proxy server host name or IP address and PORT with the port number.
- 1.4. If your proxy server requires authentication, replace LOGIN and PASSWORD with the proxy server credentials. Otherwise, delete these lines.
- 1.5. Locate (or create) the env section in the file /opt/acronis/etc/aakore.yaml and add the following lines to it:

http-proxy: LOGIN:PASSWORD@ADDRESS:PORT https-proxy: LOGIN:PASSWORD@ADDRESS:PORT

- 1.6. Replace LOGIN and PASSWORD with the proxy server credentials, and ADDRESS: PORT with the address and port number of the proxy server.
- 1.7. Reboot the appliance with reboot.
- 2. The agent's network connection will be configured automatically via DHCP. To change the default configuration, under **AGENT OPTIONS**, in **eth0**, click **Change** and specify the desired network settings.

| 📌 VZ_ESXApplia         | ance - VMware Remote | Console                   |  |                     | _   |        | ×        |
|------------------------|----------------------|---------------------------|--|---------------------|-----|--------|----------|
| VMware Remote          | Console 🔻 📘 👻        | <b>₽</b> []               |  |                     | ≫ 📮 |        | <b>-</b> |
| Agent for \            | Network              |                           |  |                     | ×   |        | ×        |
| Agent f                | Configure the netw   | vork interfaces available | on the virtual machine with            | the agent           |     |        |          |
| Onerthet               | eth0                 |                           | eth0                                   |                     |     |        |          |
| Specify th<br>web cons |                      |                           | Network adapter:                       |                     | 6   | ear in | the      |
| Agent sta              |                      |                           | VLAN ID:                               |                     |     |        |          |
|                        |                      |                           | Hardware address:                      | 00:50:56:97:2F:F4   |     |        | 1        |
| AGENT OPTIC            |                      |                           | Status:                                | Connected           |     |        |          |
| vCenter/B              |                      |                           | Media type:                            | 10 Gbps Full-Duplex |     | ange   | _        |
| , vo entenz            |                      |                           | <ul> <li>Auto configuration</li> </ul> |                     | ľ   | unge   |          |
|                        |                      |                           | DHCP:                                  | Used                |     |        |          |
| Managerr<br>Server     |                      |                           | IP address:                            |                     | - P | ange   |          |
| Server                 |                      |                           | Subnet mask:                           |                     | _   |        |          |
| eth0                   |                      |                           | Default gateways:<br>DNS suffix:       |                     |     | ande   |          |
| eulo                   |                      |                           | DNS servers:                           |                     | -   | ange   |          |
|                        |                      |                           | DINS Servers:                          |                     | -   |        |          |
| VIRTUAL MAC            | + Add VLAN           | - Remove VLAN             | WINS servers:                          |                     |     |        |          |
| Name:                  |                      |                           |  | OK Cancel           |     | anqe   |          |
| (i) About              |                      |                           |  |                     |     | Rebo   | ot       |
|                        |                      |                           |  |                     |     | Rebo   | EN-US    |

3. Under **AGENT OPTIONS**, in **vCenter/ESX(i)**, click **Change** and specify the vCenter Server name or IP address. The agent will be able to back up and recover any virtual machines managed by the vCenter Server.

If you do not use a vCenter Server, specify the name or IP address of the ESXi host whose virtual machines you want to back up and recover. Normally, backups run faster when the agent backs up virtual machines located on its own host.

Specify the credentials that the agent will use to connect to the vCenter Server or ESXi. It is recommended to use an account that has the Administrator role assigned. Otherwise, provide an account with the necessary privileges on the vCenter Server or ESXi.

Click **Check connection** to ensure the access credentials are correct.

| 📌 VZ_ESXApplia         | nce - VMware Remote Console              |                         |                                       | -  |         | ×          |   |  |  |
|------------------------|--|-------------------------|---------------------------------------|----|---------|------------|---|--|--|
| VMware Remote          | VMware Remote Console ▼      ▼ ⊕ □ ≫ □ ≫ |                         |                                       |    |         |            |   |  |  |
| Agent 410              | бы вернуться к компьютеру, нажм          | ите Ctrl+Alt.           |                                       |    |         | ×          |   |  |  |
| Agent f                | Connections                              | Appliance)              |                                       | ×  |         |            |   |  |  |
| Specify th<br>web cons | Specify the ESX(i) server and            | credentials for remote  | connection to Agent for VMware        | e  | ar in i | the        |   |  |  |
| Agent sta              | ESX(i) Server                            | ESX(i) Server           |                                       |    |         |            |   |  |  |
| AGENT OPTIC            |  | Specify an ESX(         | i) server and the access credentials. |    |         |            |   |  |  |
| vCenter/E              |  | Server name/IP:         | 1                                     | າຂ | ange    | )          |   |  |  |
| Managerr<br>Server     |  | User name:<br>Password: | a with a weak of the connection       | na | ange.   | **         |   |  |  |
| eth0                   |  |                         |                                       | າະ | ange.   |            |   |  |  |
| VIRTUAL MAC            |  |                         |                                       |    |         |            |   |  |  |
| Name:                  |  |                         | OK Cancel                             |    | ange.   |            |   |  |  |
| (i) About              |  |                         | Turn Off                              | F  | Rebo    | ot<br>EN-U | s |  |  |

### 4. Under AGENT OPTIONS, in Management Server, click Change.

In **Server name/IP**, select **Cloud**. The software will display the Cyber Protection service address. Do not change this address unless instructed otherwise.

In **User name** and **Password**, specify the user name and password for the Cyber Protection service. The agent and the virtual machines managed by the agent will be registered under this account.

| 📌 VZ_ESXAppliance - VM | Iware Remote C                   | onsole   | – 🗆 ×                      |
|------------------------|----------------------------------|--|----------------------------|
| VMware Remote Console  | •   <b>  </b> • 1                | 육 [2]  | » 📮 📮 🕞                    |
| Agent for VMware       | (Virtual Ap                      | bliance)   | ×                          |
| Agent for VI           | Mware (                          | Virtual Appliance)                                       |                            |
| web console.           |                                  | ers below. After the agent is configured, the virtual ma | achines will appear in the |
| Agent status:          | The agent                        | Register agent   |                            |
| AGENT OPTIONS          |                                  | Server name/IP:  |                            |
| vCenter/ESX(i):        | Connect<br>Server n<br>User nar  | Cloud • https://us5-cloud.acronis.com<br>User name:      | Change                     |
| Management<br>Server   | Registen<br>Server n<br>User nar | Password:  | Trige                      |
| eth0                   | Address<br>IP addre              | OK Cancel  | Change                     |
| VIRTUAL MACHINE        |                                  |  |                            |
| Name:                  | 1                                | -VA-F8F9   | Change                     |
| (i) About              |                                  |  | Turn Off Reboot            |

5. Under **VIRTUAL MACHINE**, in **Time zone**, click **Change**. Select the time zone of your location to ensure that the scheduled operations run at the appropriate time.

| /ware Remote Consol              | e ▼   <mark>  </mark> ▼ 母 []  | » 📮 📮 E               |
|----------------------------------|---|-----------------------|
| Agent for VMwar                  | e (Virtual Appliance)   |                       |
| Agent for V                      | 'Mware (Virtual Appliance)  |                       |
| Specify the requ<br>web console. | ired parameters below. After the agent is configured, the virtual machi     | nes will appear in th |
| Agent status:                    | The agent is connected to vCenter/ESX(i) server '1                          |                       |
| Management<br>Server             | Registered<br>Server name/IP: https://us5-cloud.acronis.com<br>User name: k | Change                |
| eth0                             | Address type: Assigned by DHCP<br>IP address: 1                             | Change                |
| VIRTUAL MACHINE                  |   |                       |
| Name:                            | -VA-E8E9  | Change                |
| Time:                            | Tuesday, December 22, 2020 12:59:00 PM                                      |                       |
| Time zone:                       | (UTC+03:00) Moscow, St. Petersburg, Volgograd (RTZ 2)                       | Change                |
| DAbout                           |   | n Off Reboot          |

6. Optionally, you can attach an additional disk to the virtual appliance so the Acronis Agent for VMware can back up to this locally attached storage.

Add the disk by editing the settings of the virtual machine and click **Refresh**. The **Create storage** link will become available. Click this link, select the disk, and then specify a label for it.

### **CHAPTER 3**

## Deploying the Agent for Virtuozzo Hybrid Infrastructure from a QCOW2 Template

Such an appliance is a pre-configured virtual machine that you deploy in Virtuozzo Hybrid Infrastructure. It contains a protection agent that enables you to administer cyber protection of all virtual machines in a Virtuozzo Hybrid Infrastructure cluster.

Before you proceed to deploy one or more agents, take note of the following:

#### Agent system requirements.

When deploying the agent virtual appliance(s), you can choose between different predefined combinations of vCPUs and RAM, i.e. flavors. You can also create your own flavors.

The medium flavor with 2 vCPUs and 4 GB of RAM is optimal and sufficient for most operations. It is recommended, however, to let an agent have 8 GB of RAM and 4 vCPUs to improve backup performance if the backup traffic exceeds 100 MB/s (in 10 Gbps networks, for example).

#### • The number of agents.

Even though one agent can protect the entire cluster, you can deploy more if you need to distribute the backup traffic bandwidth load.

If you have more than one agent in a cluster, the virtual machines are automatically evenly distributed between the agents, so that each agent manages an equal number of machines.

Automatic redistribution takes place when a load imbalance among the agents reaches 20%. This may happen, for example, when a machine or an agent is added or removed. For example, you may realize

that you need more agents to help with throughput and deploy an additional virtual appliance to the cluster. The management server will assign the most appropriate machines to the new agent. The load on older agents will be reduced. When you remove an agent from the management server, the machines assigned to the agent are distributed among the remaining agents. This, however, will not happen if an agent gets corrupted or is deleted manually from a Virtuozzo Hybrid Infrastructure node. Redistribution will start only after you remove such an agent from the Cyber Protection web interface.

You can view the result of the automatic distribution:

- In the Agent column for each virtual machine in the All devices section
- In the Assigned virtual machines section of the Details panel when an agent is selected in Settings > Agents
- Limitations
  - Virtuozzo Hybrid Infrastructure appliances cannot be deployed remotely.
  - Application-aware backup of virtual machines is not supported.

### 3.1 Configuring Networks in Virtuozzo Hybrid Infrastructure

Before deploying and configuring the virtual appliance, you need to configure networks in Virtuozzo Hybrid Infrastructure.

The network requirements for the agent are:

- The virtual appliance requires at least two network adapters. The actual number may vary depending on the network architecture.
- The virtual appliance must be connected to Virtuozzo networks with the following network traffic types: **Compute API, VM Backup, ABGW Public, VM Public.**

For more information about configuring the networks, see Requirements for the compute cluster and Network requirements and recommendations sections in the Virtuozzo Hybrid Infrastructure documentation.

### 3.2 Configuring User Accounts in Virtuozzo Hybrid Infrastructure

To configure the agent appliance, you need a Virtuozzo Hybrid Infrastructure user account. This account must have the Administrator role in the **Default** domain. For more information about users, refer to the Virtuozzo Hybrid Infrastructure documentation. Grant this account access to all projects in the **Default** domain.

To do this, run the following script in the Virtuozzo Hybrid Infrastructure cluster via the OpenStack Command-Line Interface. For more information on how to connect to this interface, refer to the Virtuozzo Hybrid Infrastructure documentation.



Here, USERNAME is the Virtuozzo Hybrid Infrastructure account with the Administrator role in the **Default** domain. The virtual appliance will use this account in order to back up and restore the virtual machines in any child project under the **Default** domain.

Replace **Default** with the name of another domain to manage backups for virtual machines in that domain.

# 3.3 Creating an Appliance with the Agent for Virtuozzo Hybrid Infrastructure

To create an appliance with the Agent for Virtuozzo Hybrid Infrastructure from a QCOW2 template, do the following:

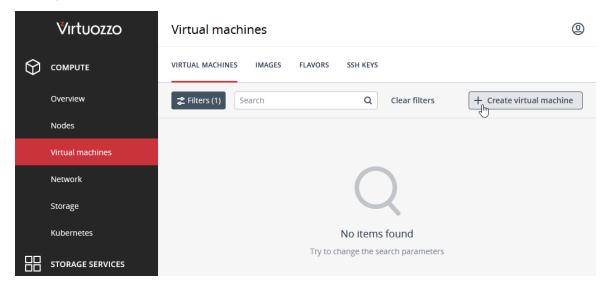
- 1. Log in to your Cyber Protection account.
- Click Devices > All devices > Add > Virtuozzo Hybrid Infrastructure. The ZIP archive will be downloaded to your machine. Unpack it to get the QCOW2 template.
- 3. Log in to your Virtuozzo Hybrid Infrastructure account.
- 4. Add the QCOW2 image file to the Virtuozzo Hybrid Infrastructure compute cluster:
  - 4.1. On the **Compute** > **Virtual machines** > **Images** tab, click **Add image**.

| Virtuozzo        | Virtual machines @   |
|------------------|--|
| 😚 сомрите        | VIRTUAL MACHINES IMAGES FLAVORS SSH KEYS                         |
| Overview         | ★ Filters (1)     Search     Q     Clear filters     + Add image |
| Nodes            |  |
| Virtual machines |  |
| Network          | $\bigcirc$   |
| Storage          | Q  |
| Kubernetes       | No items found   |
| STORAGE SERVICES | Try to change the search parameters                              |

- 4.2. In the **Add image** window, click **Browse**, and then select the QCOW2 file.
- 4.3. Specify the image name, select the **Generic Linux** OS type, and then click **Add**.

| Add image                               | ×          |
|---|------------|
| Image file<br>VHIAppliance.qcow2        | Browse     |
| Name<br>VHIAppliance.qcow2              |            |
| Select OS distribution<br>Generic Linux | ~          |
| Share between all projects              |            |
|   | Cancel Add |

5. In the **Compute > Virtual machines > Virtual machines** tab, click **Create virtual machine**.



A window will open where you will need to specify a name for the new virtual machine.

- 6. In **Deploy from**, choose **Image**.
- 7. In the **Images** window, select the QCOW2 image file of the appliance, and then click **Done**.

| Images             |                |            |             | ×       |
|--------------------|----------------|------------|-------------|---------|
| VHIAppliance X     |                |            |             |         |
| Name 4             | Type Min. volu | J OS type  | Placements  | Size    |
| UHIAppliance.qcow2 | Template       | 8 GiB Gene | ric Linux — | 674 MiB |
|                    |                |            |             |         |
|                    |                |            |             |         |
|                    |                |            |             |         |
|                    |                |            |             |         |
|                    |                |            |             |         |
|                    |                |            |             |         |
|                    |                |            |             |         |
|                    |                |            | Car         | Done    |

- 8. In the **Volumes** window, do not add any volumes. The volume that is added automatically for the system disk is sufficient.
- 9. In the **Flavor** window, choose a desired combination of vCPUs and RAM, and then click **Done**. See the agent system requirements in Deploying the Agent for Virtuozzo Hybrid Infrastructure from a QCOW2 Template.
- 10. In the **Network interfaces** window, click **Add**, select a **public** virtual network, and then click **Add**. It will appear in the **Network interfaces** list.

If you use a setup with more than one physical network (and thus with more than one public virtual network), repeat this step and select the virtual networks that you need.

- 11. Click **Done**.
- 12. Back in the **Create virtual machine** window, click **Deploy** to create and boot the virtual machine.

### 3.4 Configuring the Agent for Virtuozzo Hybrid Infrastructure

After creating the agent appliance, you need to configure it so that it can reach both the Virtuozzo Hybrid Infrastructure cluster that it will protect and the Cyber Protection cloud service.

To configure the virtual appliance:

- 1. Log in to your Virtuozzo Hybrid Infrastructure account.
- On the Compute > Virtual machines > Virtual Machines tab, select the virtual machine that you created. Then, click Console.

|          | Virtuozzo        | Virtual machines | VHI_APP                        |                                 | × |
|----------|------------------|------------------|--------------------------------|---------------------------------|---|
| $\Theta$ | COMPUTE          | VIRTUAL MACHINES | E Console & Reboot & Shut down | n 🗲 Hard reboot 🔘 Power off 🛛 … |   |
|          | Overview         | VHI_APP          | Overview                       | Monitoring                      |   |
|          | Nodes            | Name 1           |                                |                                 |   |
|          | Virtual machines | VHI_APP          | Details                        |                                 |   |
|          | Network          |                  |                                |                                 |   |
|          | Storage          |                  | Status 📀                       | Active                          |   |
|          | Kubernetes       |                  | Node my                        | host.example.local              |   |
|          |                  |                  | Creation time Au               | gust 9, 2021 3:23 PM            |   |
|          | STORAGE SERVICES |                  | SSH key No                     | t specified                     |   |

The console to the appliance virtual machine will open.

| · Agent for Virtue                     | ozzo Hybrid Infrastructure  | ×                  |
|--|---|--------------------|
| Agent for                              | Virtuozzo Hybrid Infrastructure   |                    |
| Specify the re-<br>web console.        | quired parameters below. After the agent is configured, the virtual machines v                  | vill appear in the |
| Agent status:                          | To connect the agent to the Virtuozzo Hybrid Infrastructure server, specify access credentials. | the server and its |
| AGENT OPTIONS                          |   |                    |
| Virtuozzo<br>Hybrid<br>Infrastructure: | Specify the Virtuozzo Hybrid Infrastructure cluster address and the acce<br>credentials.        | ess Change         |
| Management<br>Server                   | Specify Management Server and the access credentials.   | Change             |
| eth0                                   | Address type: Assigned by DHCP<br>IP address: 172.16.51.154                                     | Change             |
| VIRTUAL MACHINE                        |   |                    |
|  |   |                    |

3. Configure the network interfaces of the appliance. There may be one or more interfaces to configure, it depends on the number of virtual networks that the appliance uses. Ensure that automatically assigned DHCP addresses (if any) are valid within the networks that your virtual machine uses, or assign them manually.

| VHI_APP / Console                         |  |   | Send keys 💲                            | Select action 💲            |
|---|--|---|--|----------------------------|
| · Agent for \<br>Agent f                  | Network Configure the network interfaces available | on the virtual machine with                               | × the agent                            |                            |
|   | eth0   | eth0<br>Network adapter:<br>VLAN ID:<br>Hardware address: | FA:16:3E:EF:3E:63                      | ear in the<br>rver and its |
| AGENT OPTIC                               |  | Media type:<br>Auto configuration                         | Connected<br>Use Auto-Negotiation 👻    | nange                      |
| Hybrid<br>Infrastruc<br>Managen<br>Server |  | DHCP:<br>IP address:<br>Subnet mask:                      | Used<br>172.16.51.154<br>255.255.255.0 | nange                      |
| eth0<br>                                  |  | Default gateways:<br>DNS suffix:<br>DNS servers:          | 172.16.51.1                            | nange                      |
| Name:                                     | + Add VLAN - Remove VLAN                           | WINS servers:   | OK Cancel                              | nange                      |
| () About                                  |  |   |  | Reboot<br>EN-US            |

- 4. Specify the Virtuozzo cluster address and credentials:
  - The DNS name or IP address of the Virtuozzo Hybrid Infrastructure cluster. This is the address of the cluster's management node. The default port 5000 will be automatically set. If you use a different port, specify it manually.
  - In the **User domain name** field, specify your domain in Virtuozzo Hybrid Infrastructure. For example, **Default**. The domain name is case-sensitive.
  - In the **User name** and **Password** fields, enter the credentials for the Virtuozzo Hybrid Infrastructure user account with the **Administrator** role in the specified domain. For more information about users, roles, and domains, refer to the Virtuozzo Hybrid Infrastructure documentation.

| VHI_APP / Console                 |   |  | Send key                                     | s 🗘   | Select action   | ≎ ₽ |  |
|-----------------------------------|---|--|--|-------|-----------------|-----|--|
| · Agent for V                     | irtuozzo Hybrid Infrastructur                                       | re   |  |       | ×               |     |  |
| Agent fr                          | · Connections   | d Infractructura                                 |  | ×     |                 |     |  |
| Specify th<br>web cons            | Specify the Virtuozzo Hybrid In<br>to Agent for Virtuozzo Hybrid Ir |  | nd credentials for remote co                 |       | ear in the      |     |  |
| Agent sta                         | Virtuozzo Hybrid Infrastruc   | Virtuozzo Hybrid Infrastr                        | ructure cluster.                             |       | rver and its    |     |  |
| AGENT OPTIC                       |   | Specify the Virtuozzo H<br>address and the acces | lybrid Infrastructure clus<br>s credentials. | ster  |                 |     |  |
| Virtuozzo<br>Hybrid<br>Infrastruc |   | Server name/IP:<br>User domain name:             |  |       | iange           |     |  |
| Manager<br>Server                 |   | User name:<br>Password:                          |  |       | nange           |     |  |
| eth0                              |   |  | heck connection                              |       | nange           |     |  |
| VIRTUAL MAC                       |   |  |  |       |                 |     |  |
| Name:                             |   |  | ок С:  | ancel | nange           |     |  |
| (i) About                         |   |  | Turr   | n Off | Reboot<br>EN-US |     |  |

5. Specify the Cyber Protection management server address and credentials for accessing it.

| Agent for Virtue                       |                          |   |                       |               |
|--|--------------------------|---|-----------------------|---------------|
| Agent for                              | Virtuozzo                | Hybrid Infrastructure                           |                       |               |
| Specify the re-<br>web console.        | quired paramet           | ers below. After the agent is configured, the v | virtual machines will | appear in the |
| Agent status:                          | To connect<br>access cre | · Register agent                                | × ver, specify the    | e server and  |
| AGENT OPTIONS                          |                          | Server name/IP:                                 |                       |               |
|  |                          | Cloud + https://cloud.acronis.com               |                       |               |
| Virtuozzo<br>Hybrid<br>Infrastructure: | Specify t<br>credentia   | User name:                                      | nd the access         | Change        |
| Management<br>Server                   | Specify N                | Password:                                       |                       | Change        |
| eth0                                   | Address<br>IP addre      | OK Cancel                                       |                       | Change        |
| VIRTUAL MACHINE                        | , i                      |   |                       |               |
| Name:                                  | host-172-                | 16-51-154                                       |                       | Change        |

### **CHAPTER 4**

## Migrating Virtual Machines

Migrating virtual machines from VMware vSphere to Virtuozzo Hybrid Infrastructure involves two major steps:

- 1. Backup the virtual machines.
- 2. Recover them to Virtuozzo Hybrid Infrastructure.

These steps are described in detail in the next sections.

### 4.1 Backing Up Virtual Machines

To backup virtual machines, you will need to:

- Remove VMware Tools and install Virtuozzo Guest Tools in the virtual machines.
- Create a protection plan with the **Backup** module enabled. It is a set of rules that specify how the given data will be protected on a given machine. A protection plan can be applied to multiple machines at the time of its creation, or later.

To create the first protection plan with the **Backup** module enabled, select the machines that you want to back up and click **Protect**.

The software will display protection plans that are applied to the machine. If the machine does not have any plans assigned to it, you will see the default protection plan that can be applied. You can adjust the settings as needed and apply this plan or create a new one.

To create a new plan:

1. Click **Create plan**. Enable the **Backup** module and unroll the settings.

| Virtuozzo Cyber Cloud                     | VMware > All virtual ma | test-V  | /M-01  |   | ×          |
|---|-------------------------|---------|--|---|------------|
| Manage account                            | <b>Q</b> Search         | All vir | ← Back to applied protection plans                                 |   |            |
| 🕜 dashboard 🛛 🚺                           | Type Name↑<br>-         | test    | New protection plan (1)  | Cancel  | eate       |
|   |                         | Ð       | Backup<br>Entire machine to Cloud storage, Monday to               | Friday at 05:45 PM                                    | ~          |
| All devices                               | test-VM-01              | ۲       | What to back up  | Entire machine  | ~          |
| Machines with agents                      |                         | ♪       | Where to back up   | Cloud storage   |            |
| VMware                                    |                         | Ø       | Schedule   | Monday to Friday at 05:45 PM                          | 0          |
| Virtuozzo Hybrid<br>Infrastructure        |                         |         | How long to keep   | Monthly: 6 months<br>Weekly: 4 weeks<br>Daily: 7 days |            |
| Virtuozzo Migration Demo                  | 5                       |         | Encryption   |   | <b>(</b> ) |
| Unmanaged machines<br>Data protection map |                         | Ŀ       | Application backup   | Disabled  | (i)        |
|   | <b>P</b>                | (!)     | Backup options   | Change  |            |
|   |                         | E⊋      | Disaster recovery<br>Recovery server: auto, Cloud network infrasti | ucture: auto  | >          |
| Powered by Acronis AnyData Engine         | P                       |         | Recovery server, auto, cloud network initiast                      | utture. auto  |            |

- 2. (Optional) To modify the protection plan name, click the default name.
- 3. (Optional) To modify the **Backup** module parameters, click the corresponding setting of the protection plan panel.
- 4. (Optional) To modify the backup options, click **Change** next to them.
- 5. Click Create.

To apply an existing protection plan:

1. Select the machines that you want to back up and click **Protect**. If a common protection plan is already applied to the selected machines, click **Add** plan. The software will display the previously created protection plans.

| Virtuozzo Cyber Cloud             | VMware > All virtual ma               | test-\  | /M-01   | ×          |
|-----------------------------------|---------------------------------------|---------|---|------------|
| Manage account                    | <b>Q</b> Search                       | All vir | Applied protection plan: 1  | 🛨 Add plan |
| 🕜 DASHBOARD 🛛 🕚                   | Type Name ↑<br>_                      | test    | New protection plan   |            |
|                                   |                                       | Ð       |   |            |
| All devices                       | ✓ 🔁 test-VM-01                        | ٢       | Backup<br>Entire machine to Cloud storage, Monday to Friday at 06:30 PM | •          |
| Machines with agents              |                                       | \$      |   |            |
| VMware                            |                                       |         |   |            |
| Virtuozzo Hybrid                  | Po 🗱                                  | Ð       |   |            |
| Infrastructure                    | Po 🔛                                  | E       |   |            |
| Virtuozzo Migration Demo          |                                       | 6.2     |   |            |
| Unmanaged machines                | • • • • • • • • • • • • • • • • • • • | Ŀ       |   |            |
| Data protection map               | ē                                     | ()      |   |            |
|                                   |                                       | E⊋      |   |            |
| Powered by Acronis AnyData Engine |                                       | L⊕      |   |            |

- 2. Select a protection plan to apply.
- 3. Click **Apply** and wait until the backup procedure is complete.

| Virtuozzo Cyber Cloud  | WMware → All virtual machines     H Add     H @ @ |            |  |                         |               |                      |  |  |
|--|---|------------|--|-------------------------|---------------|----------------------|--|--|
| Manage account   | <b>Q</b> Search                                   |            |  | Selected: 1 / Loaded: 2 | 5 / Total: 25 | All virtual machines |  |  |
| Dashboard 1  | Туре  | Name ↑     | Account  | Status 3                | La 🗘          | test-VM-01           |  |  |
|  | þ   |            |  | 🚫 Not protected         | Never         | Protect              |  |  |
| All devices  | 4 👳   | test-VM-01 |  | 🛛 ок 🛛 🙎                | Dec 22        | Disaster<br>recovery |  |  |
| Machines with agents   | F.  |            |  | 🚫 Not protected         | Never         |                      |  |  |
| VMware   | 5   |            |  | 🚫 Not protected         | Never         | Recovery             |  |  |
| Virtuozzo Hybrid   | 5   |            |  | 🚫 Not protected         | Never         | Replication          |  |  |
| Infrastructure<br>Virtuozzo Migration Demo   | F.  |            |  | 🚫 Not protected         | Never         | Details              |  |  |
| , and the second s | F.  |            | Territoriceninov (nonec                            | 🚫 Not protected         | Never         |                      |  |  |
| Unmanaged machines   | Ð   |            |  | 🚫 Not protected         | Never         | Activities           |  |  |
| Data protection map  | æ   |            | аларынан колоникалары<br>Каланкаларынан колонулары | 🚫 Not protected         | Never         | () Alerts            |  |  |
| PLANS  | ē   |            | terikaretoikovilarret                              | 🚫 Not protected         | Never         | Add to group         |  |  |
| Powered by Acronis AnyData Engine  | Ð   | W          | Y <del>uri Karetnikov (kareti</del> .              | 🚫 Not protected         | Never         | <b>□⊕</b> 9 8,044    |  |  |

### 4.2 Recovering Virtual Machines

To complete migration, virtual machines need to be recovered from their backups to the desired location.

One prerequisite is that a virtual machine must be stopped during recovery. By default, the software stops the machine without a prompt. When the recovery is completed, you have to start the machine manually. You can change the default behavior by using the VM power management recovery option (**Recovery** options > **VM power management**).

To recover a VM to a desired location:

1. Do one of the following:

| Virtuozzo Cyber Cloud             | VMware          | > All virtual machines                                  |                        | +                          | Add       | 8 8 9 9              |
|-----------------------------------|-----------------|---|------------------------|----------------------------|-----------|----------------------|
| Manage account                    | <b>Q</b> Search |   |                        | Selected: 1 / Loaded: 25 / | Total: 25 | All virtual machines |
| Dashboard 5                       | Type Na         | ame ↑   | Account                | Status                     | La 🗘      | Protect group        |
|                                   | - 🕒 🧃           |   |                        | 🚫 Not protected            | Never     | Protect              |
| All devices                       | v 🕒 tes         | st-VM-01  |                        | 🕑 ок                       | Dec 22 0  | Disaster<br>recovery |
| Machines with agents              | <b>5</b>        | Several establishes be<br>Next to Section of the second |                        | 🚫 Not protected            | Never     | Recovery             |
| VMware                            | - Fo 🗮          |   |                        | Not protected              | Never     |                      |
| Virtuozzo Hybrid                  | - 🚯 🤞           |   |                        | 🚫 Not protected            | Never     | Replication          |
| Infrastructure                    | - 🖪 👋           |   |                        | Not protected              | Never     | Details              |
| Virtuozzo Migration Demo          | - <b>F</b>      |   | Y                      | Not protected              | Never     |                      |
| Unmanaged machines                |                 |   | Vuri Karetnikov (karet | 🚫 Not protected            | Never     | Activities           |
| Data protection map               | - 🕒 📢           |   |                        | 🚫 Not protected            | Never     | () Alerts            |
|                                   | P               |   | Y                      | 🚫 Not protected            | Never     | Add to group         |
| Powered by Acronis AnyData Engine | - 🗗 🤞           |   | Yu                     | 🚫 Not protected            | Never     | L⊕ Yaa to group      |

• Select a backed-up machine, click **Recovery**, and then select a recovery point.

- Select a recovery point on the **Backup storage** tab.
- 2. Click **Recover** > **Entire machine**.

| Virtuozzo Cyber Cloud   | VMware > All virtual n | naci test-VM-01                                | ×                    |
|---|------------------------|--|----------------------|
| Manage account  | <b>Q</b> Search        | All vir Storage: https://www.alloca            | More ways to recover |
| 🕜 DASHBOARD 🛛 5   | Type Name↑<br>_        | test Today, 06:23 PM                           | <del>ن</del> ه       |
|   |                        | Backup plan: New protection plan               | "es"                 |
|   | ✓ 🔁 test-VM-01         | Contents: Virtual machine<br>Backup type: Full |                      |
| Machines with agents  |                        | RECOVER RUN AS VM                              |                      |
| VMware  |                        | 2 Entire machine                               |                      |
| Virtuozzo Hybrid  |                        | Files/folders                                  |                      |
| Infrastructure  | <b>F</b>               |  |                      |
| Virtuozzo Migration Demo  |                        |  |                      |
| Unmanaged machines  |                        | Ŀ  |                      |
| Data protection map   |                        | 0  |                      |
|   |                        |  |                      |
| Powered by Acronis ApyDete Engine<br>https://us5-cloud.acronis.com/ui/# |                        | L⊕   |                      |

By default, the software automatically selects the original machine as the target machine.

| <b>Virtuozzo</b> Cyber Cloud       | UMware > All virtual mac | test-VM-01 ⑦ ×                               |
|------------------------------------|--------------------------|--|
| Manage account                     | <b>Q</b> Search          | RECOVER TO                                   |
| 🕢 dashboard 🛛 5                    | Type Name ↑              | Virtual machine                              |
|                                    |                          | test-VM-01 on 1                              |
| All devices                        | test-VM-01               | VM SETTINGS<br>Memory: 2.00 GB               |
| Machines with agents               |                          | Virtual processors: 1<br>Network adapters: 1 |
| VMware                             |                          | START RECOVERY A RECOVERY OPTIONS            |
| Virtuozzo Hybrid<br>Infrastructure |                          |  |
| Virtuozzo Migration Demo           |                          |  |
| Unmanaged machines                 |                          |  |
| Data protection map                |                          |  |
| PLANS                              |                          |  |
| Powered by Acronis AnyData Engine  |                          |  |

To recover to another virtual machine, click **Target machine**, and then do the following:

- 2.1. Select the hypervisor **Virtuozzo Hybrid Infrastructure**.
- 2.2. Select whether to recover to a new or existing machine.
- 2.3. Select the storage, domain, project and specify the new machine name, or select an existing target machine.
- 2.4. Click **OK**.

| Virtuozzo Cyber Clo              | ud 📃 VMware $ ightarrow$ All virtual mad | Select target machine X  |
|----------------------------------|--|--|
| Manage account                   | Q Search                                 | Virtuozzo Hybrid Infrastructure V Select "Virtuozzo Hybrid Infrastructure" |
| (2) dashboard                    | S Type Name↑                             | New machine     Select "New machine"     Existing machine                  |
|                                  |  | Storage-Cluster Select Storage   |
| All devices                      | test-VM-01                               | Default Cefault  |
| Machines with agents             |  | admin  |
| VMware                           |  | TestDomain   |
| Virtuozzo Hybrid                 |  |  |
| Infrastructure                   |  |  |
| Virtuozzo Migration De           |  |  |
| Unmanaged machines               |  |  |
| Data protection map              |  | Machine name:  |
|                                  |  | test-VM-01   |
| Powered by Acronis AnyData Engin |  | OK Cancel  |

- 3. Set up the additional recovery options if needed.
- 4. Click **Start recovery**.

| Vır | <b>tuozzo</b> Cyber Cloud | ≡ ∨           | Mware > All virtual mac | test-VM-01                                | ? | $\times$ |
|-----|---------------------------|---------------|-------------------------|---|---|----------|
|     | Manage account            | <b>Q</b> Sear |                         | RECOVER TO                                |   |          |
| Ø   | DASHBOARD 5               | ,<br>Т        | /pe Name ↑<br>—         | Virtual machine<br>TARGET MACHINE         |   |          |
| Ę   | DEVICES                   |               |                         | test-VM-01 on vhi-01.vstoragedomain New   |   |          |
|     | All devices               | <b>Z</b>      | test-VM-01              | DISK MAPPING<br>Disk 1 → default, 16.0 GB |   |          |
|     | Machines with agents      |               |                         | VM SETTINGS<br>Flavor type: medium        |   |          |
|     | VMware                    |               |                         | Network adapters: 1                       |   |          |
|     | Virtuozzo Hybrid          |               |                         | START RECOVERY                            |   |          |
|     | Infrastructure            |               |                         |   |   |          |
|     | Virtuozzo Migration Demo  |               |                         | 1   |   |          |
|     | Unmanaged machines        |               |                         |   |   |          |
|     | Data protection map       |               |                         |   |   |          |
| þ   | PLANS                     |               |                         |   |   |          |
| Po  |                           |               | D                       |   |   |          |

5. When recovering to an existing virtual machine, confirm that you want to overwrite the disks.

The recovery progress is shown on the **Activities** tab.

| ∛ır | <b>tuozzo</b> Cyber Cloud       |                 | ware 🕥 All virtual mac | Act | ivity details  | × |
|-----|---------------------------------|-----------------|------------------------|-----|--|---|
|     | Manage account                  | <b>Q</b> Search |                        | 0   | 06:43 PM — 06:51 PM (7 min)<br>Recovering virtual machine  |   |
| Q   | DASHBOARD 3                     | Туре            | e Name ↑               |     | Status: Succeeded<br>Started by: Research States State |   |
| Ę   | DEVICES                         |                 |                        |     | Start time: Dec 22, 2020, 06:43:59 PM<br>Finish time: Dec 22, 2020, 06:51:18 PM<br>Duration: 7 min   |   |
|     | All devices                     | v 🖣             | test-VM-01             |     | All properties   |   |
|     | Machines with agents            |                 |                        |     | <ul> <li>06:44:09 PM — 06:51:18 PM<br/>Recovering the entire virtual machine</li> </ul>  |   |
|     | VMware                          | - Fo            |                        |     | <ul> <li>06:44:09 PM — 06:44:29 PM<br/>Preparing for recovery of virtual machine</li> </ul>  |   |
|     | Virtuozzo Hybrid                |                 |                        |     | 06:44:30 PM — 06:44:45 PM  |   |
|     | Infrastructure                  | - F             |                        |     | Creating new virtual machine   |   |
|     | Virtuozzo Migration Demo        | - 5             |                        |     | <ul> <li>06:44:45 PM — 06:49:56 PM<br/>Recovering virtual machine disks</li> </ul>   |   |
|     | Unmanaged machines              | •               | 60000                  |     | 06:49:56 PM 06:51:18 PM  |   |
|     | Data protection map             | • •             |                        |     | Fixing virtual machine bootability   |   |
| þ   | PLANS                           |                 | versions               |     |  |   |
| Po  | wered by Acronis AnyData Engine |                 | vitalised              |     |  |   |

After a successful migration, you will see your VM in Virtuozzo Hybrid Infrastructure.

| Virtuozzo         | Virtual machines        |                  |            |         |                  | 0           |
|-------------------|-------------------------|------------------|------------|---------|------------------|-------------|
|                   | VIRTUAL MACHINES IMAGES | FLAVORS SSH KEYS |            |         |                  |             |
| 😚 сомрите         | Search                  | Q                |            |         | + Create virtu   | ual machine |
| Overview          | Name 🕈                  | Status 🔱         | IP address | vCPUs 4 | RAM $\downarrow$ | s 🗘         |
| Nodes             | test-VM-01              | Shut down        |            | 2       | 4 GiB            | o           |
| Virtual machines  | VHI_VAPP                | Active           |            | 1       | 2 GiB            | 8           |
| Network           |                         |                  |            |         |                  |             |
| Storage           |                         |                  |            |         |                  |             |
| STORAGE SERVICES  |                         |                  |            |         |                  |             |
|                   |                         |                  |            |         |                  |             |
| င့်္လြဲ settings  |                         |                  |            |         |                  |             |
| Storage-Cluster 📀 |                         |                  |            |         |                  |             |