



Virtuozzo Hybrid Infrastructure 4.5

INTEGRATION GUIDE FOR CLOUDBLUE CONNECT

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1 Introduction

This guide explains how to enable and manage integration between Virtuozzo Hybrid Infrastructure and the CloudBlue billing system.

Basically, you will need to do the following:

1. Create and configure a project in the CloudBlue Connect vendor portal.
2. Create a virtual machine in a cloud. Install, configure, and start the connector service inside the virtual machine. This service integrates with the Connect API to retrieve order requests and provision ordered subscriptions for Virtuozzo Hybrid Infrastructure.

Important

To be able to connect to Virtuozzo Hybrid Infrastructure, the **Compute API** traffic type must be added to a network accessible from the created virtual machine.

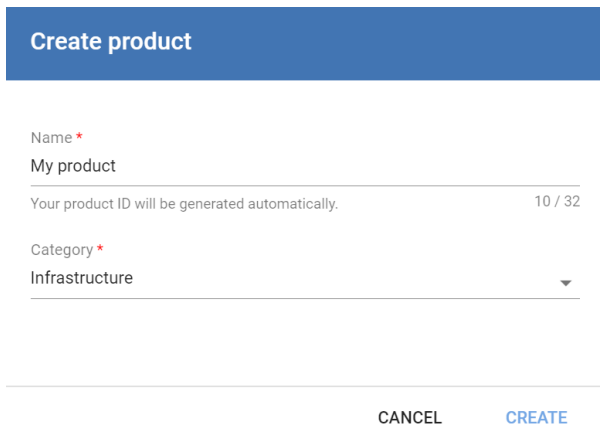
3. Test creating and managing assets, that are customer projects, in the CloudBlue Connect vendor portal.

2 Creating products

A product contains all services that a vendor exposes for sale, including product items, sales models, and requirements to product orders and fulfillment phase.

To create a new product, do the following:

1. Go to **Products** and click **+ Create product**.
2. In the **Create product** window, enter a product name and select **Infrastructure** from the **Category** drop-down list. Then, click **Create**.



Create product

Name *
My product

Your product ID will be generated automatically. 10 / 32

Category *
Infrastructure

CANCEL CREATE

The product ID will be automatically generated.

2.1 Configuring general information

On the product's **General** page, you can do the following:

1. Click **Edit** next to the product name to change the product name and category or add a product icon and a short description.
For an icon, the recommend format is .png with a transparent background.
2. Click **Edit** on the **Overview** tab to add a product description.
3. Click **+ Add** on the **Media** tab to add one or more media files for marketing purposes.
4. Click **Edit** on the **Capabilities** tab to add various capabilities that automate certain processes in the order and usage flows.

For the pay-as-you-go model, enable **Pay-as-you-go** and select the reporting schema.

Edit capabilities

Pay-as-you-go
Product has pay-as-you-go capability, where the Vendor is required to periodically submit Usage Files to the Provider.

Reporting Schema
Implemented schema is explicitly declared in the product definition. One product implements only one schema.

TR
Multi-Tiers Rated

CR
Cost Rated

PR
Price Rated

QT
Quantity

Dynamic Items
Product reports dynamic items in the Usage File, i.e. the ones that were not pre-declared in the Product Definition.

CANCEL SAVE

2.2 Creating product items

Product items are compute resources in Virtuozzo Hybrid Infrastructure that customers order and pay for: CPU, RAM, storage, floating IP addresses, load balancers and Kubernetes clusters.

Product items can be defines for two billing models:

- A reservation model offers provisioning limited amount of compute resources.
- A pay-as-you-go model offers provisioning unlimited resources and charging them according to daily usage reports.

For the reservation model, do the following:

1. On the product page, go to the **Items > Reservation** tab, remove the default items and click **+ Create item**.
2. In **Create item - Step 1 General**, enter an item name, manufacturer part number, and description.

For the manufacturer part number, refer to the table below.

| Resource | Manufacturer part number |
|----------|--------------------------|
| CPU | CPU_limit |
| RAM | RAM_limit |

| | |
|-----------------------|---------------|
| Storage | Storage_limit |
| Floating IP addresses | floating_ip |
| Load balancers | lbaas_limit |
| Kubernetes clusters | k8saas_limit |

Name *
CPU

Manufacturer Part Number *
CPU_limit

Description *
CPU_limit

Parent Item *
-

Leave the default value in the **Parent item** field and click **Next**.

3. In **Create item - Step 2 Type**, select **One Time** in the **Billing period** field and units in the **Unit** field:

- For RAM and storage, select **Gb**
- For other compute resources, select **Units**

Billing Period
One Time

Unit
Units

Click **Create**.

After adding all the six compute resources, you will have the following list.

| Items | | RESERVATION | PAY AS YOU GO | | | | + CREATE ITEM |
|------------------------------------------------------|----------------|-------------------|---------------|--------|--|--|-------------------------------|
| Name | Billing Period | MPN | Unit | Status | | | |
| CPU PRD-263-056-411-0004 | Onetime | CPU_limit | Units | Draft | | | |
| RAM PRD-263-056-411-0005 | Onetime | RAM_limit | Gb | Draft | | | |
| Storage PRD-263-056-411-0003 | Onetime | Storage_limit | Gb | Draft | | | |
| Floating IPs PRD-263-056-411-0006 | Onetime | floating_ip_limit | Units | Draft | | | |
| LBaaS PRD-263-056-411-0007 | Onetime | lbaas_limit | Units | Draft | | | |
| K8SaaS PRD-263-056-411-0008 | Monthly | k8saas_limit | Units | Draft | | | |

For the pay-as-you-go model, do the following:

1. On the product page, go to the **Items > Pay as you go** tab, click + **Create item**.

Important

Make sure you have the **Pay-as-you-go** capability enabled on the product's **General > Capabilities** tab.

2. In **Create item - Step 1 General**, enter an item name, manufacturer part number, and description.

For the manufacturer part number, refer to the table below.

| Resource | Manufacturer part number |
|-----------------------|--------------------------|
| CPU | CPU_consumption |
| RAM | RAM_consumption |
| Storage | Storage_consumption |
| Floating IP addresses | Floating_ip_consumption |
| Load balancers | LB_consumption |
| Kubernetes clusters | K8S_consumption |

Name *
CPU_consumption

Manufacturer Part Number *
CPU_consumption

Description *
CPU_consumption

Click **Next**.

3. In **Create item - Step 2 Type**, select **Integer (Example: 42)** in the **Precision** field and **Unit*H** in the **Unit** field.

Precision
Integer (Example: 42)

Unit
Unit*H

Click **Create**.

After adding all the six compute resources, you will have the following list.

| Items | | RESERVATION | PAY AS YOU GO | | | + CREATE ITEM |
|-------------------------------------------------------------------|-------------------------|-------------|------------------------|--------------------------|--|---------------|
| Name | MPN | Unit | Precision | Status | | |
| CPU consumption PRD-135-150-751-0001 | CPU_consumption | Unit*H | Integer Example: 42 | ✔ Published | | |
| RAM consumption PRD-135-150-751-0002 | RAM_consumption | Unit*H | Integer Example: 42 | ✔ Published | | |
| Storage consumption PRD-135-150-751-0003 | Storage_consumption | Unit*H | Integer Example: 42 | ✔ Published | | |
| Floating IP consumption PRD-135-150-751-0004 | Floating_IP_consumption | Unit*H | Integer Example: 42 | ✔ Published | | |
| Load balancers count PRD-135-150-751-0005 | LB_consumption | Unit*H | Integer Example: 42 | ✔ Published | | |
| Kubernetes Clusters count PRD-135-150-751-0006 | K8S_consumption | Unit*H | Integer Example: 42 | ✔ Published | | |

2.3 Creating product parameters

Product parameters are used to create a product order and to fulfill a product request. You can create three types of parameters:

- Configuration parameters are metadata specified during the product configuration. They can be assigned to the product in general, product item, and related marketplace.
- Order parameters are specified by customers when ordering the product.
- Fulfillment parameters are specified by the vendor when fulfilling a product request.

For Virtuozzo Hybrid Infrastructure, you need to add the following parameters:

| Parameter | ID | Phase |
|---------------|-------------|---------------|
| Item limit | item_limit | Configuration |
| Project name | project | Ordering |
| User name | user | Ordering |
| User password | password | Ordering |
| Domain name | domain_name | Fulfillment |
| Domain ID | domain_id | Fulfillment |
| Project ID | project_id | Fulfillment |
| User ID | user_id | Fulfillment |

To create a parameter, do the following:

1. On the product page, go to **Parameters** and click **+ Create parameter**.
2. In **Create parameter — Step 1 Type**, select **Single line text** to be able to enter a value for the parameter in a text line. Click **Next**.
3. In **Create parameter — Step 2 Phase**, select the phase where the parameter will be used and click **Next**.
For the parameter phase, refer to the table above.
4. In **Create parameter — Step 3 Scope**, select **Asset** and click **Next**.

- In **Create parameter — Step 4 Constrains**, enable **Required** to make the parameter mandatory. Click **Next**.
- In **Create parameter — Step 5 Details**, enter the parameter ID, title, and description. For the parameter ID, refer to the table above.

ID *
project
Must be unique for this product. 7 / 64

Title *
Project name
Used as a label for inputs. 12 / 100

Description *
Project name
Used as hint for inputs. 12 / 100

Click **Create**.

- In **Create parameter — Step 6 Summary**, review the parameter summary and click **Close**.

After adding all the product parameters, you will have the following list:

Parameters + CREATE PARAMETER

Parameters are additional pieces of information that are required to complete a purchase request. Some examples of parameters include shipping address, activation email, and etc. In the form below, you are able to configure these parameters. The parameters will be requested from the consumer while processing the purchase request.

| Name ▾ | Description | Phase ▾ | Scope ▾ | Type ▾ | Constraints ▾ |
|--------------------------------------------|-------------------------|---------------|---------|------------------|---------------|
| Project project | Project name | Ordering | Asset | Single line text | 0 |
| User name user | Project admin user name | Ordering | Asset | Single line text | 0 |
| Password password | Admin user password | Ordering | Asset | Single line text | 0 |
| Domain name domain_name | Domain name | Fulfillment | Asset | Single line text | 0 |
| Domain ID domain_id | Domain ID | Fulfillment | Asset | Single line text | 0 |
| Project ID project_id | Project ID | Fulfillment | Asset | Single line text | 0 |
| User ID user_id | User ID | Fulfillment | Asset | Single line text | 0 |
| Item limit item_limit | Item limit | Configuration | Item | Single line text | 0 |

2.4 Defining configuration parameters

On the product's **Configuration** page, you can manage parameters associated with the configuration phase. Virtuozzo Hybrid Infrastructure has only one configuration parameter, item limit, which enables defining maximum resource limits for the reservation model.

To define the resource limits, do the following:

1. On the **Configuration** page, click the pencil icon next to the value you want to change.

Configuration

| Parameter | Scope | Item | Marketplace | Value |
|--------------------------|-------|--------------------------------------|-------------|-------------------------|
| Item limit item_limit | Item | Storage PRD-263-056-411-0003 | — | 100 Single line text |
| Item limit item_limit | Item | CPU PRD-263-056-411-0004 | — | 100 Single line text |
| Item limit item_limit | Item | RAM PRD-263-056-411-0005 | — | 100 Single line text |
| Item limit item_limit | Item | Floating IPs PRD-263-056-411-0006 | — | 100 Single line text |
| Item limit item_limit | Item | LBaaS PRD-263-056-411-0007 | — | 100 Single line text |
| Item limit item_limit | Item | K8SaaS PRD-263-056-411-0008 | — | 20 Single line text |

2. In the **Edit value** window, set a new value and click **Save**.

Edit value

Item limit
200

CANCEL SAVE

3. Repeat the steps for each item you need to modify.

3 Enabling integration

To enable integration with CloudBlue Connect, first deploy a CentOS 7 virtual machine in any cloud environment, then install the connector service inside it as follows:

1. Install the following packages:

```
yum install epel-release.noarch
yum install centos-release-openstack-stein.noarch
```

2. Install the cloudblue-connector package:

```
yum install <path_to_the_package>/cloudblue-connector-<version>.v17.noarch.rpm
```

3. Install the Connect SDK:

```
easy_install connect-sdk==20.2
```

If you want to use flat billing, do the following:

1. Copy the configuration file example to config.json and open the latter for editing:

```
cp /etc/cloudblue-connector/config.json.example /etc/cloudblue-connector/config.json
vi /etc/cloudblue-connector/config.json
{
  "infraKeystoneEndpoint": "https://192.168.1.40:5000/v3",
  "infraDomain": "Default",
  "infraProject": "admin",
  "infraUser": "vstorage-service-user",
  "infraPassword": "*****",
  "apiEndpoint": "https://api.connect.cloud.im/public/v1",
  "apiKey": "ApiKey SU-469-692-689:*****",
  "products": ["PRD-063-065-206", "PRD-022-814-775"],
  "templates": {
    "PRD-022-814-775": {"grant": "TL-699-973-660", "revoke": "Access to VDC has been revoked"},
    "PRD-063-065-206": {"grant": "TL-101-949-609", "revoke": "Access to VDC has been revoked"}
  }
}
```

2. Change the default parameters:

- in "infraKeystoneEndpoint", replace the example IP address with the IP address of the Virtuozzo Hybrid Infrastructure cluster that you want to connect to
- in "infraDomain", "infraProject", "infraUser", and "infraPassword", change the domain, project, and user credentials to the ones of a Virtuozzo Hybrid Infrastructure system administrator
- in "apiEndpoint", specify the API endpoint to interact with the Connect API copied from the vendor portal on the **Extensions > General** page

Extensions

- General**
- Tokens
- Webhooks

General

API provides integrations to external systems such [documentation](#)

Use this endpoint to interact with the Connect API

API endpoint
<https://api.connect.cloud.im/public/v1>
 Use this endpoint to interact with the API

- in "apiKey", specify the API key copied from the vendor portal on the **Extensions > Tokens** page

| Label | Created | Requestor | Type | API Key/Handle | Status |
|-----------------------------------------------|---------------------------------------|------------------|----------------------------------|----------------|-------------------------------------------|
| custom-label <small>SU-627-652-570</small> | 06/30/2020 <small>11:45 AM</small> | user@example.com | Custom <small>EXT-000</small> | ***** | Active |

- in "products", specify product IDs copied from the vendor portal on the **Products** page

Products

Name

WERED

[VDC Reservation model](#)

PRD-263-056-411

[VDC Pay as you go model](#)

PRD-267-233-715

- in "templates", specify template IDs for each product copied from the vendor portal on the **Products > product > Embedding** page. Click the **Templates** tab and go to the **Activation tile templates** section

3. Run the command:

```
cloudblue-fulfillments
```

4. Enable and start the cloudblue-fulfillments service:

```
systemctl enable cloudblue-fulfillments
systemctl start cloudblue-fulfillments
```

If you want to use the pay-as-you-go model, do the following:

1. Copy the configuration usage example to config-usage.json and open the latter for editing:

```
cp /etc/cloudblue-connector/config-usage.json.example /etc/cloudblue-connector/config-usage.json
vi /etc/cloudblue-connector/config-usage.json
{
  "infraKeystoneEndpoint": "https://192.168.1.40:5000/v3",
  "infraDomain": "Default",
  "infraProject": "admin",
  "infraUser": "vstorage-service-user",
  "infraPassword": "****",
  "apiEndpoint": "https://api.connect.cloud.im/public/v1",
  "apiKey": "ApiKey SU-469-692-689:*****",
  "products": ["PRD-063-065-206"],
  "templates": {
    "PRD-263-056-411": {"grant": "TL-304-029-298", "revoke": "Access to VDC has been revoked"},
  }
}
```

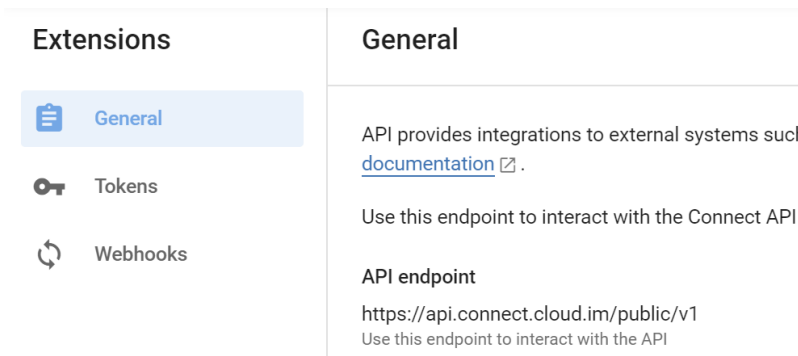
```

    "PRD-063-065-206": {"grant": "TL-101-949-609", "revoke": "Access to VDC
has been revoked"}
  }
}

```

2. Change the default parameters:

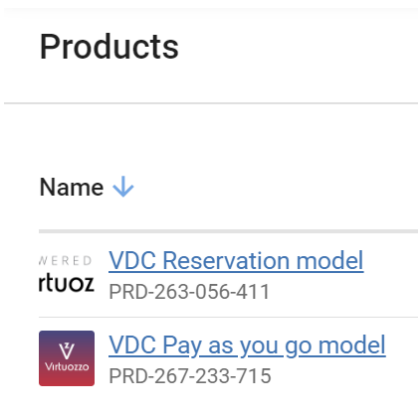
- in "infraKeystoneEndpoint", replace the example IP address with the IP address of the Virtuozzo Hybrid Infrastructure cluster that you want to connect to
- in "infraDomain", "infraProject", "infraUser", and "infraPassword", change the domain, project, and user credentials to the ones of a Virtuozzo Hybrid Infrastructure system administrator
- in "apiEndpoint", specify the API endpoint to interact with the Connect API copied from the vendor portal on the **Extensions > General** page



- in "apiKey", specify the API key copied from the vendor portal on the **Extensions > Tokens** page

| Label | Created | Requestor | Type | API Key/Handle | Status |
|--------------------------------|------------------------|------------------|-------------------|----------------|--------|
| custom-label SU-827-652-570 | 06/30/2020 11:45 AM | user@example.com | Custom EXT-000 | ***** | Active |

- in "products", specify the ID of the product with the pay-as-you-go billing model. Copy the product ID from the vendor portal on the **Products** page



- in "templates", specify template IDs for each product copied from the vendor portal on the **Products > product > Embedding** page. Click the **Templates** tab and go to the **Activation**

tile templates section

The screenshot shows the WERED interface for the 'rtuoz' user. The left sidebar contains a navigation menu with the following items: 'General', 'Items', 'Parameters', 'Embedding' (highlighted in blue), 'Configuration', 'Versions', 'Preview', and 'GTM Builder'. The main content area is titled 'Embedding' and displays two activation tile templates. The first template is titled 'Additional information is req...' with ID 'TL-610-770-153' and an 'EDIT' button. The second template is titled 'Activation tile templates' with ID 'TL-304-029-298' and an 'EDIT' button. The content of the second template is as follows:

```
Virtual datacenter
Link: https://vic-esp.eu.ru:8800/login/{{ domain_name }}https://vic-
esp.eu.ru:8800/login/{{ domain_name }}
User: {{ user }}
```

3. Enable and start the cloudblue-usage service:

```
systemctl enable cloudblue-usage
systemctl start cloudblue-usage
```

4 Creating assets

An asset represents a product instance provisioned to a customer. In this case, it is a customer project with defined quotas in Virtuozzo Hybrid Infrastructure.

You can create an asset for testing purposes as follows:

1. In the vendor portal, go to the **Assets** page and click **+ Create asset**.
2. In **Create Asset — Step 1 Introduction**, read about assets and click **Next**.
3. In **Create Asset — Step 2 Product**, select a product and click **Next**.

Select a product

| Product Name | Provider | Description | Selected |
|------------------------------------------------------|----------|-------------------------------------|----------------------------------|
| VDC Reservation model rtuoz PRD-263-056-411 | | The service directly enables ser... | <input checked="" type="radio"/> |
| VDC Pay as you go model Virtuozzo PRD-267-233-715 | | The service directly enables ser... | <input type="radio"/> |

4. In **Create Asset — Step 3 Marketplace**, select a marketplace available for the provider and click **Next**.

Select a marketplace

| Marketplace Name | Provider | Selected |
|------------------------------|-----------------------------|----------------------------------|
| test marketplace MP-41148 | ACME Provider PA-473-705 | <input checked="" type="radio"/> |

5. In **Create Asset — Step 4 Tiers**, select the tier configuration depending on the tier model of your marketplace and click **Next**.

Tiers

| |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="radio"/> T1 This Tier Config needs to be created in the single tier model, i.e. only direct reseller of the customer needs to be stored in the Tier Accounts data. |
| <input type="radio"/> T1+T2 This Tier Config needs to be created in the two tier model, i.e. both "reseller of the reseller" as well as "direct reseller" of the customer need to be stored in the Tier Accounts data. |

6. (Optional, appears only if you have chosen T1+T2 reseller tiers model) In **Create Asset — Step 5 T2 Account**, choose a T2 reseller account from the drop-down list or create a new one by clicking **New**. Then click **Next**.

7. In **Create Asset — Step 6 T1 Account**, choose a T1 reseller account from the drop-down list or create a new one by clicking **New**. Then click **Next**.
8. In **Create Asset — Step 7 Customer**, choose a customer from the drop-down list or create a new one by clicking **New**. Then click **Next**.
9. In **Create Asset — Step 8 Asset Items**, click **+ Add Items**.
In a window that opens, select all items that represent compute resources in Virtuozzo Hybrid Infrastructure and click **Select**.

Select Items

🔍 Search for Items

| <input checked="" type="checkbox"/> | Name | MPN | Type/Period | Unit |
|-------------------------------------|--------------|-------------------|---------------------|-------|
| <input checked="" type="checkbox"/> | CPU | CPU_limit | Reservation Onetime | Units |
| <input checked="" type="checkbox"/> | RAM | RAM_limit | Reservation Onetime | Gb |
| <input checked="" type="checkbox"/> | Storage | Storage_limit | Reservation Onetime | Gb |
| <input checked="" type="checkbox"/> | Floating IPs | floating_ip_limit | Reservation Onetime | Units |
| <input checked="" type="checkbox"/> | LBaaS | lbaas_limit | Reservation Onetime | Units |
| <input checked="" type="checkbox"/> | K8SaaS | k8saas_limit | Reservation Monthly | Units |

CANCEL
SELECT

For the reservation model, change the quantity for items you need. For the pay-as-you-go model, the item quantity cannot be defined. Then click **Next**.

Items [RANDOMIZE](#) [CLEAR](#)

| Name | MPN | Quantity | |
|--------------------------------------|-------------------|---------------------------------|-------|
| CPU PRD-263-056-411-0004 | CPU_limit | <input type="text" value="5"/> | Units |
| RAM PRD-263-056-411-0005 | RAM_limit | <input type="text" value="42"/> | Gb |
| Storage PRD-263-056-411-0003 | Storage_limit | <input type="text" value="10"/> | Gb |
| Floating IPs PRD-263-056-411-0006 | floating_ip_limit | <input type="text" value="60"/> | Units |
| LBaaS PRD-263-056-411-0007 | lbaas_limit | <input type="text" value="25"/> | Units |
| K8SaaS PRD-263-056-411-0008 | k8saas_limit | <input type="text" value="30"/> | Units |

Note

If you are not going to use all of the items, you can exclude unnecessary ones from the asset later by setting their quantity to 0.

10. In **Create Asset — Step 9 Attributes**, leave the default external ID and UUID, and click **Next**.
11. In **Create Asset — Step 10 Parameters**, specify the project name and user credentials for a project and user that will be created in Virtuozzo Hybrid Infrastructure. Then click **Create**.

Asset Parameters

Please specify values of the ordering phase parameters for the asset. You can skip assignment of values (if not required) to simulate an unattended ordering experience.

Values

Project *

myproject

User name *

myuser

Password *

mypassword

12. In **Create Asset — Step 11 Summary**, review the created objects and their current statuses. Click **Close** to return to the list of assets.

After the asset is created, its status is changed to **Active**. You can view the asset details by clicking its ID. The asset page also provides the link to the VDC login page. The **Requests** tab contains all requests associated with this asset.

← Asset details

| Status | Asset | Product | Marketplace |
|----------|----------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| ● Active | AS-9322-9160-3675 Preview One-time | <small>WERED</small> rtuoz VDC Reservation model PRD-263-056-411 |  test marketplace MP-41148 |

CONTROL PANEL RESERVATION PAY AS YOU GO PARAMETERS DETAILS TIERS REQUESTS

We are happy to provide you the Cloud Service - an ultimate solution for your company. Stop using the legacy on-premises solution on your computer. Move to the cloud with our help.

Virtual datacenter

Link: <https://vip-sup.sw.ru:8800/login/TA-4985-6783-0639>

User: 45674567

5 Managing assets

5.1 Provider actions

Providers can suspend assets due to administrative purposes or payment issues. Suspending an asset temporarily disables its items. In a suspended state, an asset item does not operate but can be resumed without any data loss. Providers can also create billing requests of assets with the reservation model. A billing request provides information about billing of item associated with the asset for a particular period.

To perform any of these actions, go to the asset details page, click **Actions** and select an action from the **Provider Actions** list.

5.2 Customer actions

Customers can change resource reservation by changing asset items and cancel subscription by canceling an asset.

To change asset items, do the following:

1. Go to the asset details page, click **Actions** and select **Change**.
2. In **Change Asset - Step 1 Overview**, read the information and click **Next**.
3. In **Change Asset - Step 2 Asset Items**, set new quantity values for the desired items and click **Create change request**.

Items

| Name | Old Quantity | | New Quantity | |
|--------------------------------------|--------------|---|--------------|-------|
| Storage PRD-263-056-411-0003 | 20 | → | <u>100</u> | Gb |
| CPU PRD-263-056-411-0004 | 20 | → | <u>30</u> | Units |
| RAM PRD-263-056-411-0005 | 20 | → | <u>60</u> | Gb |
| Floating IPs PRD-263-056-411-0006 | 20 | → | <u>20</u> | Units |

4. In **Change Asset - Step 3 Summary**, check the asset and request status and click **Close**.

If an asset is no longer needed, a customer can cancel it as follows:

1. Go to the asset details page, click **Actions** and select **Cancel**.
2. In **Cancel asset — Step 1 Overview**, read the information and click **Create cancel request**.
3. In **Cancel asset — Step 2 Summary**, check the asset and fulfillment request status and click **Close**.

Once an asset is canceled, its status becomes **Terminated** and the asset cannot be processed. A new fulfillment request must be created in order to proceed.

In Virtuozzo Hybrid Infrastructure, the asset project is disabled after an asset is canceled.

6 Viewing resource usage reports

Assets created for the pay-as-you-go model generate daily usage reports and send them in the .xlsx format. You can view these reports as follows:

1. Go to the **Usage** page and click the needed report

| Usage File | Schema | Created | Product | Provider | Marketplace | Record statistics | Status |
|----------------------------------------------------------------------|----------------|-----------------------|--------------------------------------------|--------------------|------------------|-------------------|---------|
| Report For AS-4777-9200-1431 UF-2020-06-2785-9662 | QT Quantity | 06/24/2020 6:39 AM | VDC Pay as you go model PRD-267-233-715 | None PA-000-000 | None MP-00000 | 6 Uploaded | Deleted |
| Report For AS-6731-8024-3055 UF-2020-07-0237-7058 | QT Quantity | 07/07/2020 2:28 AM | VDC Pay as you go model PRD-267-233-715 | None PA-000-000 | None MP-00000 | 6 Uploaded | Ready |
| Report For AS-6731-8024-3055 UF-2020-07-0517-8225 | QT Quantity | 07/08/2020 2:42 AM | VDC Pay as you go model PRD-267-233-715 | None PA-000-000 | None MP-00000 | 6 Uploaded | Ready |

2. On the report details page, download the processed usage file by clicking its name.

← Usage file details Report for AS-6731-8024-3055 2020-07-07

| Status | ID | Product | Provider | Marketplace |
|--------|----------------------|--------------------------------------------|--------------------|------------------|
| Ready | UF-2020-07-0237-7058 | VDC Pay as you go model PRD-267-233-715 | None PA-000-000 | None MP-00000 |

GENERAL PREVIEW

| Distribution Contract | Period (UTC) | Schema | Currency | Records statistics |
|-------------------------------|--------------|----------------|----------|--------------------|
| None CRD-00000-00000-00000 | — | QT Quantity | — | 6 Uploaded |

Description

External ID Visible only for you

Files [RE-UPLOAD NORMALIZED USAGE FILE](#)

| Normalized usage file | Processed usage file |
|-------------------------------------------|-----------------------------------------------------|
| UF-2020-07-0237-7058.xlsx | UF-2020-07-0237-7058-PROCESSED.xlsx |

3. Open the file and go to the **records** tab. Review the usage statistics.

| item_search_value | quantity | start_time_utc | end_time_utc |
|-------------------------|----------|---------------------|---------------------|
| CPU_consumption | 27 | 2020-07-06 00:00:00 | 2020-07-07 00:00:00 |
| Storage_consumption | 1260 | 2020-07-06 00:00:00 | 2020-07-07 00:00:00 |
| RAM_consumption | 54 | 2020-07-06 00:00:00 | 2020-07-07 00:00:00 |
| Floating_IP_consumption | 0 | 2020-07-06 00:00:00 | 2020-07-07 00:00:00 |
| LB_consumption | 0.0000 | 2020-07-06 00:00:00 | 2020-07-07 00:00:00 |
| K8S_consumption | 0.0000 | 2020-07-06 00:00:00 | 2020-07-07 00:00:00 |

7 Troubleshooting

7.1 Troubleshooting integration issues

If you have encountered an integration issue, log in to the CentOS 7 virtual machine and check the status of the `cloudblue-fulfillments` service. It should be enabled and active. For example:

```
# systemctl status cloudblue-fulfillments
● cloudblue-fulfillments.service - Connect to backend, fulfillments service
Loaded: loaded (/usr/lib/systemd/system/cloudblue-fulfillments.service; enabled;
vendor preset: disabled)
Active: active (running) since Fri 2020-07-17 07:58:21 EDT; 10s ago
```

For the pay-as-you-go model, also check the `cloudblue-usage` service.

The service logs can be viewed by using the `journalctl` utility.

7.2 Troubleshooting asset issues

If you have problems with assets in the vendor portal, you can check the corresponding failed requests. Do the following:

1. Go to the **Requests** tab on the asset page and click the request with the **Failed** status.
2. On the request details page, check the **Notes** panel for the problem root cause. For example:

NOTES CO-599-212-631 ><

July 12, 2020

Test user

Request PR-4056-1015-0856-001
created. State set to Pending.

5:32 AM

Test user

State changed to failed

5:33 AM

Reason: ERROR: REQUESTED
LIMITS ARE HIGHER THEN HARD
LIMITS

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