Contabo VPS setup

This document provides instructions for creating a new VPS at Contabo. Installation is straightforward, except that you will need to create a 'custom image' area to hold the SwimAdmin image before installation. However, port 25 is already open, and there is no additional firewall to disable, which simplifies installation.

Contabo is based in Germany, but will accept payment in Sterling or Euros. However, Sterling (and USD) prices are currently marked up by 30-35% compared to the Euro price. You can instead pay directly in Euros by card, in which case you will be responsible for transaction and conversion costs. You will need to decide what currency to use before registration, because this cannot be changed after registration. The currency issue is the only significant disadvantage to using Contabo; the hardware itself is modern and cheap[1].

Contabo is currently (June 2023) charging €5.99 per month for a 'Cloud VPS S', if you pay in Euros. The setup fee is also €5.99. With VAT, this comes to €14.38, which is charged to your card during the setup. There is an additional €1.19/month charge for storing custom images at Contabo (SwimAdmin is a custom image). You have to accept this charge when loading the custom image to Contabo, but you can delete the image and cancel the storage service when installation has completed.

1 ENABLE CUSTOM IMAGES

After registration, you should start by enabling custom images. Select Custom Images in the control panel menu, and click Order Custom Image. This produces a pop-up, which will ask you for a payment for the additional storage. This order may take 10 or 15 minutes to complete; when the storage is ready, the Order Custom Image text changes to Add Custom Image. While waiting, proceed to Step 2.

2 PROVISION THE VPS

Click VPS in the New Order menu, and select the 'Cloud VPS S'. This has 4 vCPU cores, and 8GB RAM.

The installation page currently has 7 sections, which are numbered as follows:

1. Set Select your term length as required. All costs shown here are for a one-month term
2. Under Region, select your preferred region. This defaults to Germany, but you can select the UK datacentre at a slight cost increase (currently €1.20/pcm). You may wish to do this for legal reasons (your 'external' emails will remain in the UK), but there is otherwise no disadvantage to locating the server in Germany
3. Under Storage type, select 50 GB NVMe. This is faster than the 200 GB SSD alternative. The 0623 image is limited to 20 GB, so there is no advantage to selecting the higher storage size
4. Under Image, select Popular, and then Custom Images
5. Since you are using a custom image, Login and password for your server is not relevant
6. Leave the Networking section at its defaults (no private networking, and one IP address)

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[1] The cheapest way to use Contabo is to set up a Euro account at an online bank, or Revolut. This allows you to pay directly with no transaction or additional conversion costs.

7. Do not select any Add-ons

Click Next, and authorise payment. Now click Order & Pay. The web page states that it might take up to 3 hours to provision the VPS, but it is likely to be ready within a minute or two.

3   IMAGE DOWNLOAD

You can return to the dashboard by clicking My Account. Select Custom Images. Wait until Add custom image is available, and proceed as follows.

Click Add custom image, and fill in the form as shown in Figure 1 below:

Figure 1: Add custom image #1

The required image is shown here as `https://swimadmin.co.uk/data/swimvps-0623.qcow2`. You can instead navigate to `https://swimadmin.co.uk/data`, and copy a link to another image, but `swimvps-0623.qcow2` is guaranteed to be the most recent image.

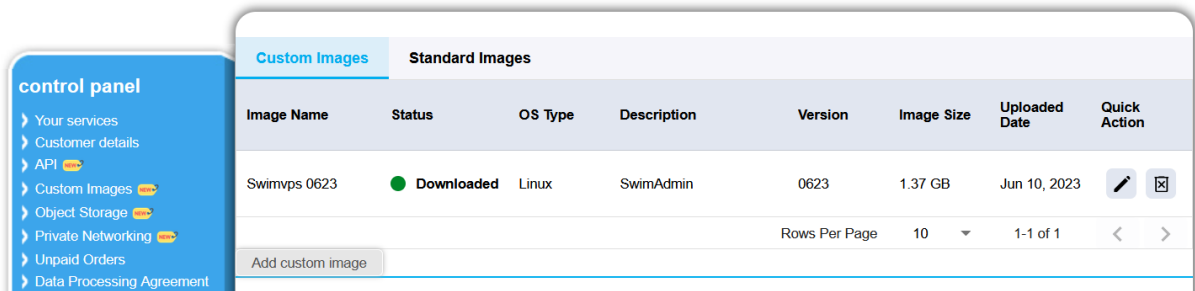Click Upload; on success, the image will show as 'Downloaded':

Figure 2: Add custom image #2

The status shows the download progress, with a percentage indicator. However, this does not work well, and you may need to refresh the page to follow the progress of the download. It should complete in 5 minutes or less. When the download has completed, proceed to Step 4.

4   INSTALL THE IMAGE

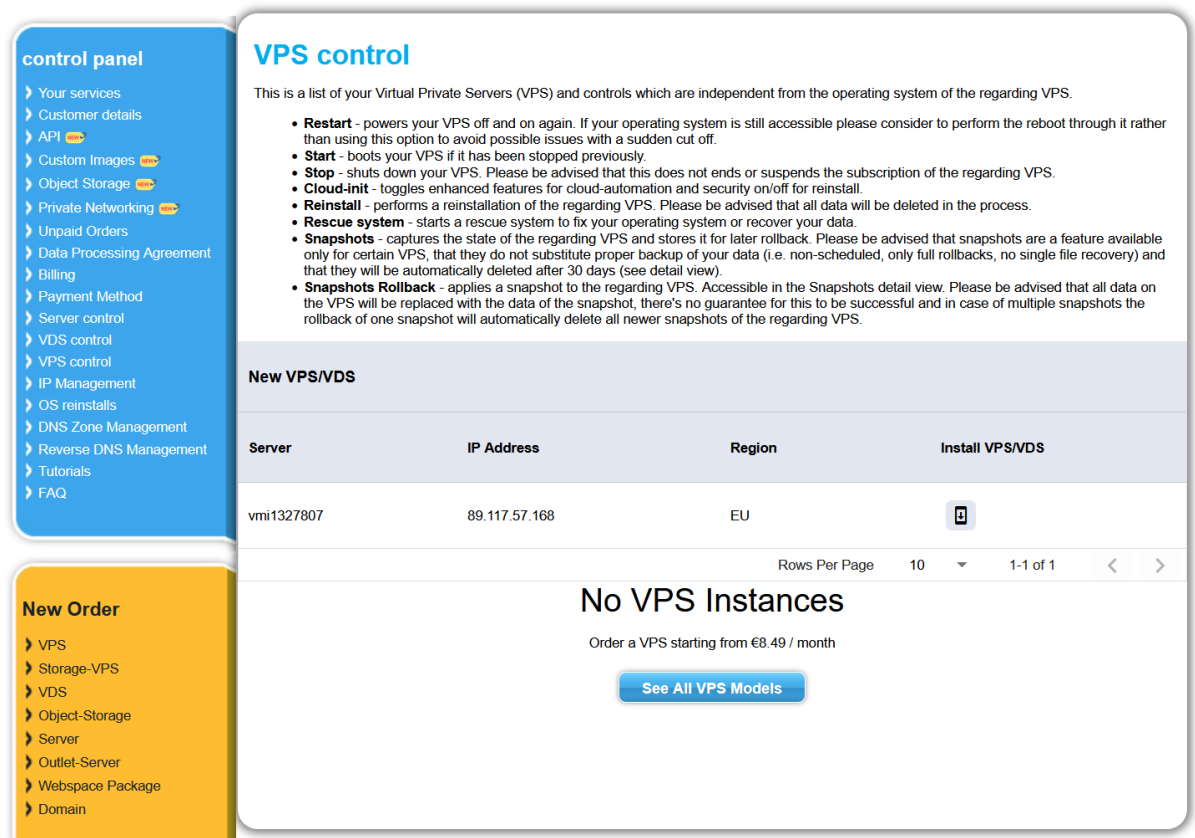Click on VPS Control in the Control Panel menu. This produces a new popup, as shown in Figure 3:

Figure 3: VPS Control

Now click Install VPS/VDS in this popup. In the new window, select the Advanced/Custom Image Installation tab. Fill this in as shown in Figure 4 below:
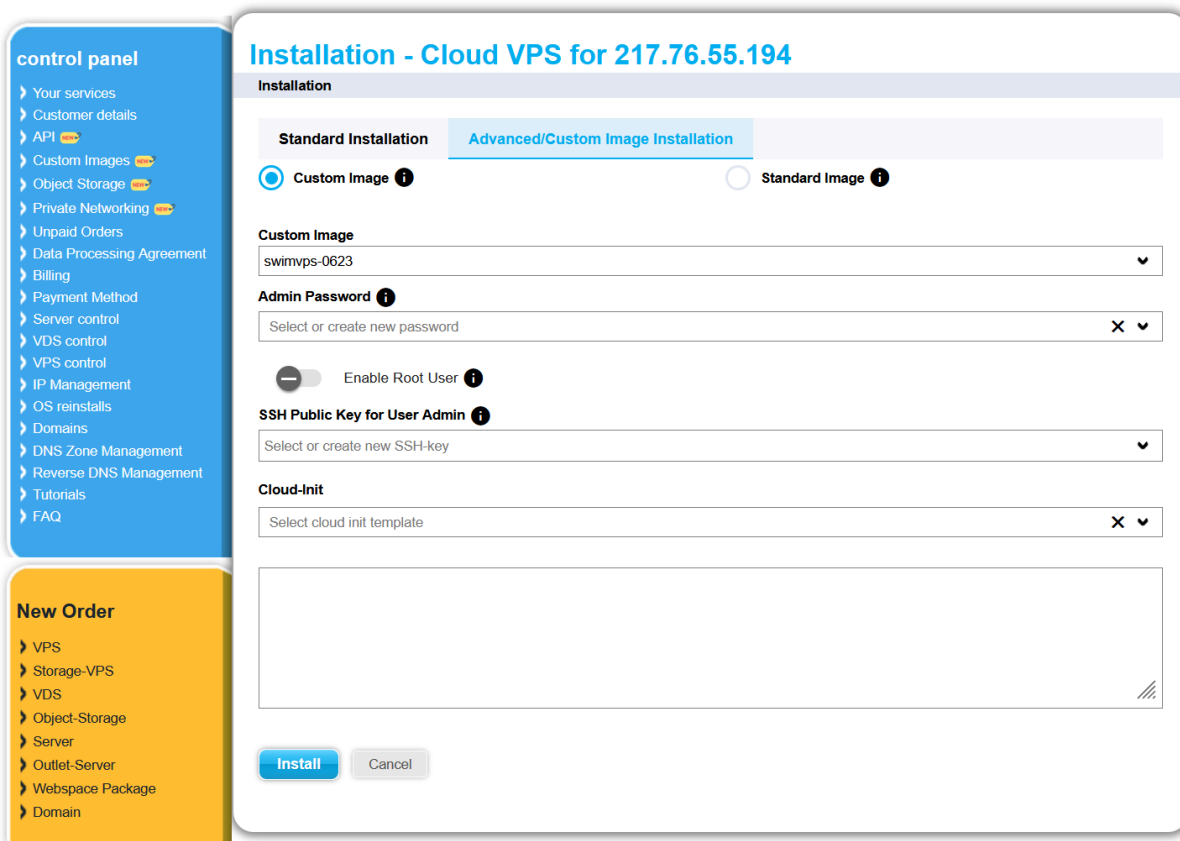
Figure 4: Image installation

Note that you only have to select the new image under 'Custom image'; nothing else is required. Click Install. A popup reports that the installation should complete within 5 minutes; click Ok to be returned to the VPS Control page. The status icon will show a monitor screen when the installation has completed. Proceed to Step 5 on completion.

5   REVERSE DNS

You now have to set up reverse DNS. The normal ('forward') DNS allows a domain name (such as `myswimclub.uk`) to be converted to an IP address, to allow your server to be located. Reverse DNS, as the name suggests, does the opposite. Email service providers (such as Gmail and Outlook) will generally do a reverse lookup on the IP address they receive incoming mails from, and confirm that the returned domain name corresponds to the claimed source domain name in the email. If there is a mismatch, the email is likely to be rejected as spam. *The IP address of your server is owned by the VPS provider, so this action has to be carried out at the VPS provider, rather than the DNS provider*.

To set up reverse DNS, click on Reverse DNS Management in the Control Panel menu. This produces a new popup, as shown in Figure 5 below. There are two rows in the image: the first one is for your site's IPv4 address, while the second is for your site's IPv6 address. In practice, the IPv6 setup is of little value, since your club members are unlikely to be able to use it. You should, however, fill in both, by clicking the pencil icons on the right. The figure shows the entry form after clicking the first icon.

The text entry field should be set to `swimvps.myswimclub.uk`, where you of course have to replace the `myswimclub.uk` portion with your own domain name. Leave the `swimvps.` prefix unmodified:

Figure 5: Reverse DNS #1

Click Save, and repeat for the second row. You need to take some care in this step; if you set up the reverse DNS incorrectly, it could take a day or more for a correction to propagate around the internet.

On completion, the two rows should look as follows:

Figure 6: Reverse DNS #2

6   CANCEL STORAGE SERVICE

You have now completed installation. You can, however, delete the custom image, and cancel the storage service, to save costs. To do this, select Your services in the control panel menu. This will show a section for 'Custom Images Storage', with a payment due in one month. Click on Manage, and then Cancel Service. You should also delete the image from the Custom Images menu item. However, you will be charged for the first month.