



# WHMCS Module Guide

|                              |                                    |
|------------------------------|------------------------------------|
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# 1. Overview

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The OnApp module for WHMCS allows you to create, build, reboot, shut down, start up, rebuild and delete virtual servers directly from WHMCS. The module is not encoded, so you can easily modify it.

Setting up and using the module includes the following major steps:

1. [Installing OnApp WHMCS module](#)
2. [Configuring OnApp as a WHMCS Product/Service](#)
3. [Creating a virtual machine](#)

## 2. Installing OnApp WHMCS module

---

To install the module:

1. Download the latest OnApp PHP Wrapper from the [OnApp website](#).
2. Extract it to the {WHMCS ROOT}/includes directory. The folder structure should be as follows:  
`{WHMCS root}/includes/wrapper`
3. Download the latest OnApp WHMCS module from the [OnApp website](#)
4. Extract the files using a .tar extraction program.
5. Upload the modules folder to the root of your WHMCS installation. The folder structure should be as follows:

```
{WHMCS root}/modules/servers/onapp/  
{WHMCS root}/templates/portal/onapp/  
{WHMCS root}/onapp.php
```

6. Skip this step if “portal” is your current Template. If else:
  - a. Copy files from this directory:

```
{WHMCS root}/templates/portal/onapp/
```

to this directory:

```
{WHMCS root}/templates/{current template name}/onapp/
```

- b. Copy the file

```
{WHMCS root}/templates/portal/header.tpl
```

To this directory:

```
{WHMCS root}/templates/{current template name}/
```

## 3. Configuring OnApp as a WHMCS product/service

After installing, the next step is to make sure that WHMCS is properly configured - that you have configured general system settings, activated payment methods, and set up at least one product group. This chapter covers basics to get you started.

### 3.1 Adding an OnApp server to WHMCS

Before you can create a product, you need to add an OnApp server to WHMCS.

To add an OnApp server to WHMCS:

1. Log in to your WHMCS **Admin Area**.
2. Go to **Setup >Product/Services> Servers**.
3. On the page that loads, click **Add New Server** link.
4. Fill in the form that appears.



The screenshot shows the 'Servers' page in WHMCS. At the top right, there is a 'Help' button. Below the page title, there is an 'Add Server' section. The form contains the following fields:

- Name:** OnApp server name
- Hostname:** (empty)
- IP Address:** 192.112.11.1
- Assigned IP Addresses (One per line):** (empty text area)
- Monthly Cost:** (empty)
- Datacenter/NOC:** (empty)
- Maximum No. of Accounts:** 200
- Server Status Address:** (empty) with a tooltip: "To display this server on the server status page, enter the full path to the server status folder (required to be uploaded to each server you want to monitor) - eg. http://www.whmcs.com/status/"
- Enable/Disable:**  Tick to disable this server

Where:

**Name** – the optional OnApp server name.

**Hostname** – the hostname of the server you're adding. If you connect to the server using secure connection, fill in this field using an https:// prefix.

**IP Address** – the IP address of the OnApp server.

**Enable/disable** – tick the box to disable the server.

*You may leave other fields blank.*

| Nameservers          |             |
|----------------------|-------------|
| Primary Nameserver   | IP Address: |
| Secondary Nameserver | IP Address: |
| Third Nameserver     | IP Address: |
| Fourth Nameserver    | IP Address: |
| Fifth Nameserver     | IP Address: |

Leave this form blank.

| Server Details   |  |
|--|--|
| Type   | Onapp  |
| Username   | admin  |
| Password   | ••••••••   |
| Access Hash<br>(Instead of password<br>for cPanel servers) |  |
| Secure   | <input checked="" type="checkbox"/> Tick to use SSL Mode for Connections |

**Type** – choose Onapp from the drop-down box.

**Username** – fill in the username which will be used to log in to your OnApp server to create virtual machines.

**Password** – the password for the specified username.

**Secure** – tick to use SSL for connections.

4. Click **Save Changes** to add the server to WHMCS.

## 3.2 Creating a Server Group

You can also place your servers into a particular server group. This is optional – but it means you will be able to assign products to the whole server group, not just a particular server, and you'll be able to rotate new orders between servers in the group.

To create a server group:

1. Log in to your WHMCS **Admin Area**.
2. Go to **Setup >Product/Services> Servers**.
3. On the page that loads, click **Create New Group** link.

4. Fill in the form that appears:
  - a. Give a name to a server group.
  - b. Choose how the new orders will be rotated.
  - c. Specify the servers which should be placed into a group.
5. Click **Save Changes** to add the new server group to WHMCS.

### 3.3 Setting Up Configurable Options

Configurable options allow your customers to increase the amount of resources provided in the products they order, for an additional price. Configurable options are created in groups which are then assigned to one or several products. You can set up options for the following OnApp resources:

- Templates
- RAM
- CPU cores
- CPU priority
- Primary disk size
- IP Address
- Port speed

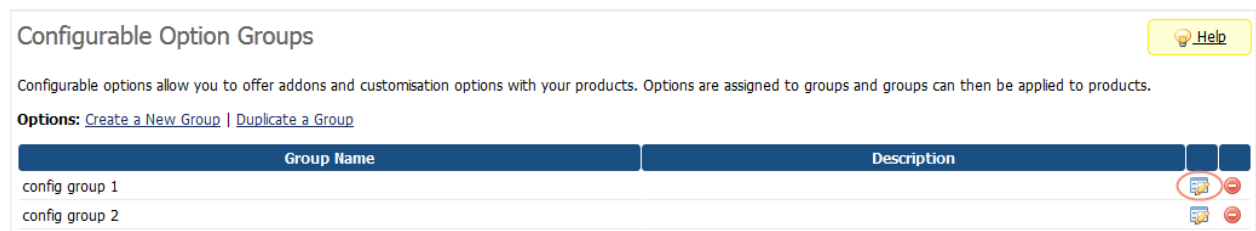
Customers can choose configurable options when they order a product, or after they purchase a product on the Upgrade/Downgrade page in Client Area (once configurable options have been enabled).

To create a new configurable options group:

1. Go to **Setup > Product/Services > Configurable** options.
2. On the page that loads, click **Create a new group** link.
3. Enter a **Group name** to which this group will apply and **Description**.
4. Choose a product or several products to which this group will be assigned.
5. Click **Save Changes**.

After you have set up Configurable option groups, you can assign options to them. To do so:

1. Go to **Setup > Product/Services > Configurable** options.
2. On the page that loads, click the **Edit** icon next to a group to which this option should be assigned.



| Group Name     | Description |
|----------------|-------------|
| config group 1 |             |
| config group 2 |             |

3. Click **Add** new configurable option button.
4. In the window that pops up:

Configurable Options

Option Name:  Option Type:

| Options                                 |     |         | One Time/<br>Monthly | Quarterly | Semi-Annual | Annual | Biennial | Triennial | Order | Hide                     |
|---|-----|---------|----------------------|-----------|-------------|--------|----------|-----------|-------|--------------------------|
| CentOS 5.5 x86                          | USD | Setup   | 5.00                 | 0.00      | 0.00        | 0.00   | 0.00     | 0.00      | 1     | <input type="checkbox"/> |
|   |     | Pricing | 1.00                 | 0.00      | 0.00        | 0.00   | 0.00     | 0.00      |       |                          |
| CentOS 4.9 x86                          | USD | Setup   | 5.00                 | 0.00      | 0.00        | 0.00   | 0.00     | 0.00      | 5     | <input type="checkbox"/> |
|   |     | Pricing | 2.00                 | 0.00      | 0.00        | 0.00   | 0.00     | 0.00      |       |                          |
| Fedora 15 x86                           | USD | Setup   | 5.00                 | 0.00      | 0.00        | 0.00   | 0.00     | 0.00      | 22    | <input type="checkbox"/> |
|   |     | Pricing | 3.00                 | 0.00      | 0.00        | 0.00   | 0.00     | 0.00      |       |                          |
| <b>Add Option:</b> <input type="text"/> |     |         |                      |           |             |        |          |           | 0     | <input type="checkbox"/> |

- Enter the **Option Name**.
  - Choose the **Option Type**.
  - In the **Add option** field (the **Options** column), enter the following values:
    - For the **Templates** resource – the template name.
    - For RAM, CPU cores, CPU priority, Primary disk size, IP Address, Port speed, Bandwidth – any optional label (e.g. it can be the value users get when they choose this option when ordering a product).
  - In the **Order** column, set the following:
    - Templates resource – the ID of the template which will be available to your customers in addition to those provided by the product. To check the ID, go to OnApp Control Panel > Templates List and mouse over the necessary template. The last number in the URL will be the template ID.
    - RAM – the additional memory value in MB, e.g. 128, 256, 512 etc;
    - CPU cores – the number of additional cores;
    - CPU priority – the additional percentage;
    - Primary disk size - the additional size in GB;
    - IP Address – the number of additional IP Addresses;
    - Port speed – the additional port speed in Mbps;
    - Bandwidth – the additional amount of sent/received MBs.
  - Click **Save** changes.
  - Repeat step 4 for each option you wish to set up.
5. Click **Close Window** when you have configured all the options for the group.

**Example**

To create a configurable option for an additional 128 MB memory resource, you would set the following:

**Option name** – RAM    **Option type** – Dropdown

**Options** - 128MB    **Pricing** – \$0    **Order** – 0

**Options** – 256MB    **Pricing** - \$5    **Order** – 128



**Options – 512MB    Pricing - \$10    Order – 256**

These settings will enable users to choose between the following RAM options when ordering a product:

- 128 MB, which actually will add nothing to the default value included into the product
- 256 MB, which will add 128 MB to the default 128 Mb included into the product, and the total RAM will be 256 MB
- 512 MB, which will add 256 MB to the default value included into the product. So the total RAM will become 512 MB.

Once you have set up all the configurable options within the group, you can specify the order how the options should appear in Client Area (**Sort Order** column).

For more details on configurable options, refer to [WHMCS documentation](#).

### 3.4 Creating a Product

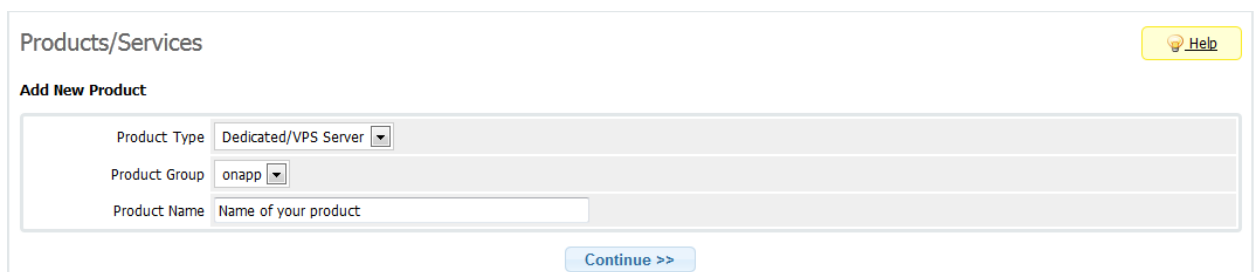
When you create a product, you connect WHMCS to the OnApp server and specify the properties and settings of the standard virtual machine you will offer to your clients. Each product must be assigned to a group which can either be visible or hidden from the order page (products may also be hidden individually). First you need to create a group. To do so:

1. Go to **Setup > Product/Services** in your WHMCS Control Panel.
2. Click the **Create a New Group** link.
3. Fill in the form that appears.
4. Click **Create Group** button.

Then you will need to create a new product and assign it to the already created product group.

To create a product:

1. Open your **WHMCS Control Panel**.
2. Go to **Setup >Products/Services**.
3. Click the **Create a New Product** link and fill in the form that appears:

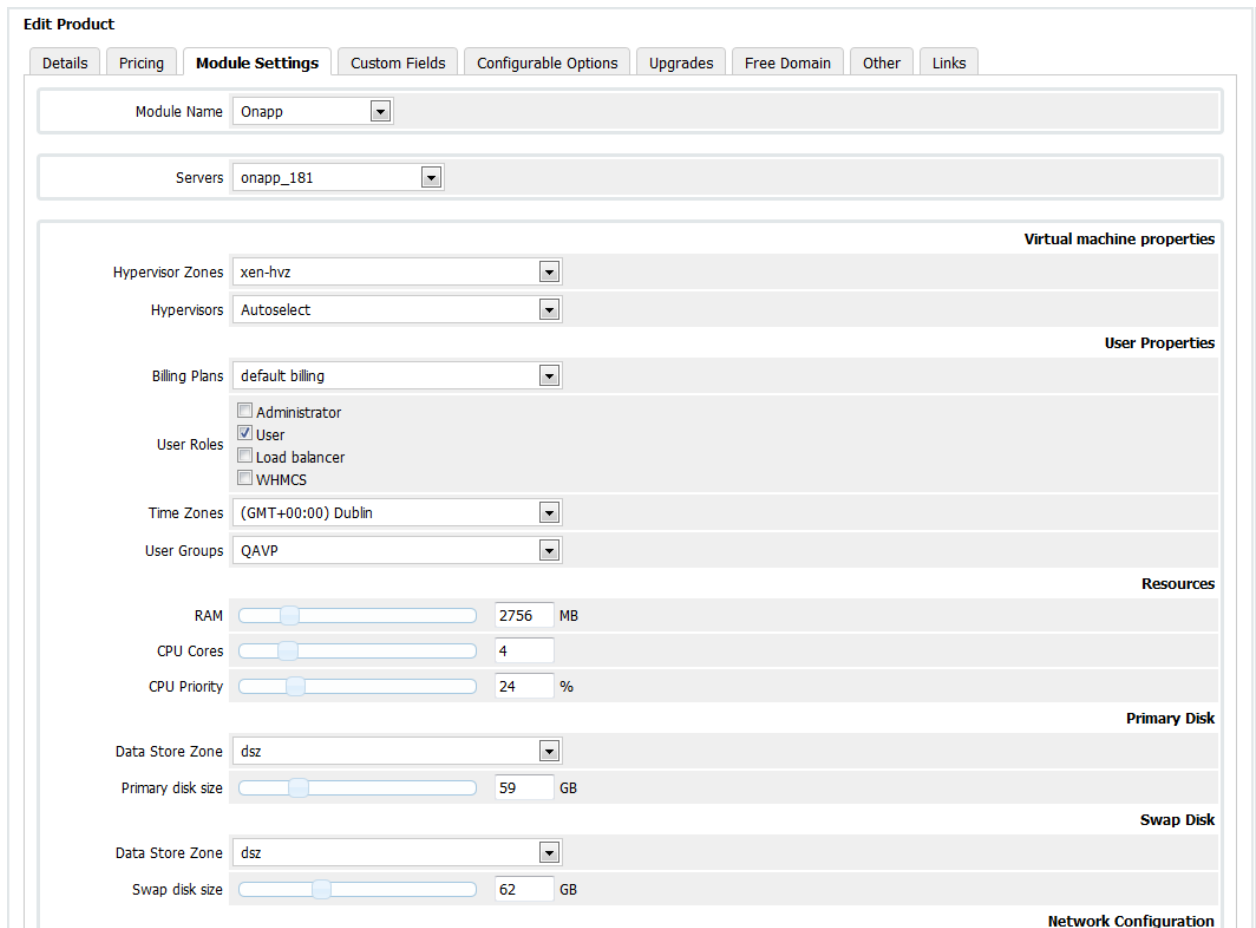


The screenshot shows the 'Products/Services' section of the WHMCS control panel. It features a 'Help' button in the top right corner. Below the title, there is a section titled 'Add New Product' containing a form with three fields: 'Product Type' (a dropdown menu with 'Dedicated/VPS Server' selected), 'Product Group' (a dropdown menu with 'onapp' selected), and 'Product Name' (a text input field with the placeholder 'Name of your product'). A 'Continue >>' button is located at the bottom of the form.

- Choose the type of product. Choose between **Shared hosting**, for web hosting accounts; **Dedicated/VPS Server**, for servers and displays server hostname, NS and root password

fields on signup, and **Other**, for anything else. Reseller hosting type of product is not applicable for OnApp module.

- Select the group to which your product will belong on the customer order form. For instructions on how to create a group, refer to WHMCS documentation.
  - Specify the desired product name.
4. Click **Continue**.
  5. Complete the forms in the **Details** and **Pricing** tabs. For instructions, refer to WHMCS documentation.
  6. Go to the **Module Settings** tab and select **Onapp** from the drop-down menu. Once the module has been loaded, complete the form that appears with the details of your product:



**Edit Product**

Details Pricing **Module Settings** Custom Fields Configurable Options Upgrades Free Domain Other Links

Module Name: Onapp

Servers: onapp\_181

**Virtual machine properties**

Hypervisor Zones: xen-hvz

Hypervisors: Autoselect

**User Properties**

Billing Plans: default billing

User Roles:
 

- Administrator
- User
- Load balancer
- WHMCS

Time Zones: (GMT+00:00) Dublin

User Groups: QAVP

**Resources**

RAM: 2756 MB

CPU Cores: 4

CPU Priority: 24 %

**Primary Disk**

Data Store Zone: dsz

Primary disk size: 59 GB

**Swap Disk**

Data Store Zone: dsz

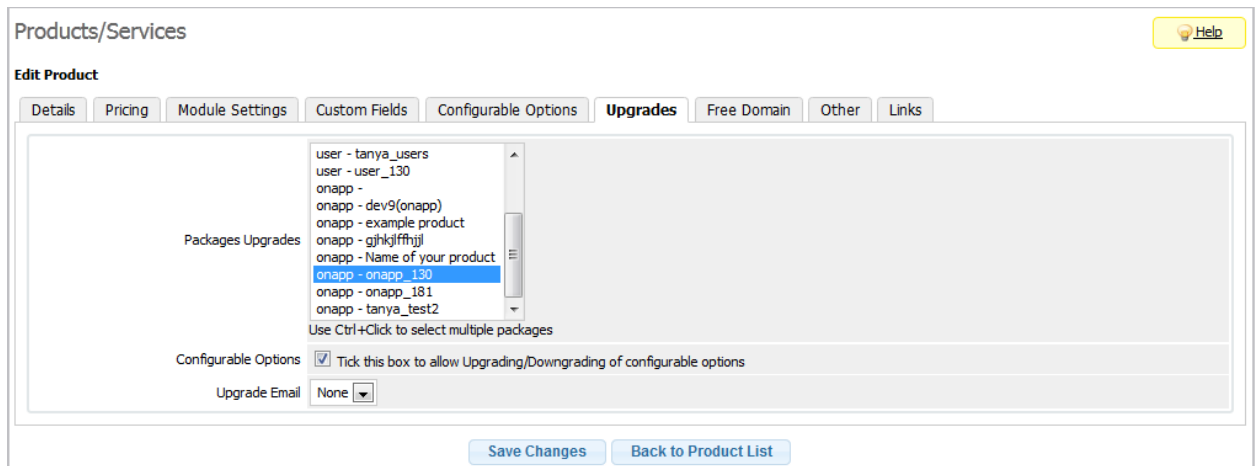
Swap disk size: 62 GB

**Network Configuration**

- Choose OnApp as a **Module name**.
- Choose the OnApp server, which you added earlier, from the **Servers** drop-down.
- Select the **Hypervisor Zone** to run virtual machines on.
- Select the **Hypervisor** to run virtual machines on.
- Specify **Billing Plan, User Role, Time Zone, User Group**, users in OnApp are going to be created with.

*For the list of default permissions in OnApp, refer to the chapter Appendix A. Default permissions for user role.*

7. Click the **Custom fields** tab and fill in the required details. For more info, refer to WHMCS documentation.
8. Click the **Configurable options** tab to assign the groups of additional resources to the product. Setup **Upgrades** to which the current product can be upgraded once ordered:



The screenshot shows the 'Edit Product' interface in the OnApp WHMCS module. The 'Upgrades' tab is active. In the 'Packages Upgrades' section, a list of packages is displayed, with 'onapp - onapp\_130' selected. Below this list, there is a checkbox for 'Configurable Options' which is checked, and a dropdown menu for 'Upgrade Email' set to 'None'. At the bottom of the form, there are two buttons: 'Save Changes' and 'Back to Product List'.

- Skip the **Packages Upgrades** part – it is not supported at the moment.
- Tick the **Configurable Options** box to enable your users to update/downgrade the product after it's been ordered.

*The product upgrade is applied when the invoice for this upgrade is paid. If there are several upgrade requests, reboot or rebuild a VM to make sure the upgrade is applied.*

- Specify the email which should be sent to your customer upon upgrade.
9. Click the Others tab to set the bandwidth limit for a product:

Products/Services Help

**Edit Product**

Details Pricing Module Settings Custom Fields Configurable Options Upgrades Free Domain **Other** Links

Custom Affiliate Payout  Use Default  Percentage  Fixed Amount  No Commission

Affiliate Pay Amount   One Time Payout (Default is Recurring)

Subdomain Options  Enter in the format .yourdomain.com (comma seperated list supported for multiple options)

This is where you can specify files that are granted access to by purchasing this product.

Associated Downloads

| Available Files | Selected Files |
|-----------------|----------------|
|                 |                |

Overages Billing  Tick to Enable

Soft Disk Limit  MB

Soft Bandwidth Limit  MB

Disk Overages Cost  Price Per MB

Bandwidth Overages Cost  Price Per MB

- Enable **Overages Billing**.
- Set the **Soft Bandwidth Limit** which is the total amount of sent/received traffic a user can reach at the product price in a 31 day period.
- Specify **Disk Overages Cost** which is the price per each MB sent/received over the bandwidth limit.

10. Specify the Links. See WHMCS documentation for details.

For more details on Products/Services in WHMCS, refer to [WHMCS documentation](#).

### 3.5 Setting up a bandwidth calculation cron job

The general cron gathers statistics for all the system once a day. If you need bandwidth calculation performed more frequently, you can set up a special bandwidth calculation cron job:

```
php -q {Path to your WHMCS install}/modules/servers/onapp/cron_bandwidth.php
```

If you set this cron job, the bandwidth statistics will be displayed at the top of the Client Profile > Product/Services tab.

## 4. Creating a virtual machine

---

To create a virtual machine using OnApp WHMCS module, customers would order the product created in the previous chapter and specify the desired VM properties, including configurable options. When the VM is provisioned, the clients can manage their VM directly in their Client Area. The following sections cover these topics in detail.

### 4.1 Placing an order

---

You can place an order for a customer in Admin Area, or your customers can order the product themselves at the Client area.

To place an order for a particular customer:

- 1 Go to your WHMCS **Admin Area**.
- 2 Go to the **Clients > View/Search Clients**.
- 3 On the page that appears, click the client **ID/Name/Last name** to go to the customer details page.
- 4 Click the **Add new order** link at the **Product/Services** page.

Alternatively, your customers can purchase the OnApp product directly from their Client Area.

To order a product:

1. Log in to your **Client Area**.
2. Click the **Order** link in the **Quick Navigation** pane.
3. Click the **Order Now** button next to a product you would like to purchase.
4. If the desired product is not listed, try choosing another category.
5. Fill in the order form that appears, including product configuration.
6. Complete the order.

For more details on order management, refer to [WHMCS documentation](#).

### 4.2 Creating a virtual machine

---

To create a virtual machine:

1. Log in to your **Client Area**.
2. Click **My Services** link at the top menu.
3. On the page that appears click the **Edit** icon next to a product on which a VM should be based.
4. Click **Create Virtual Machine** link.
5. Confirm.

## 4.3 Operating a virtual machine

Once your customers purchased a product based on WHMCS OnApp Module, they can manage their VMs directly in their Client Area.

To operate a VM:

1. Log in to your **Client Area**.
2. Click the **OnApp** tab at the top menu.
3. Click the **View** icon next to a VM you would like to manage.
4. The page that appears will list your VM settings. Use the links in the **Actions** section, to perform basic operations with your VM. Use the navigation at the top of the page to explore different aspects of this Virtual Machine.


### Client Area

[Portal Home](#) > [Client Area](#) > [My Virtual Machines](#) > [Product Details](#)

[Overview](#) | [CPU Usage](#) | [IP Addresses](#) | [Disks](#) | [Backups](#) | [Upgrade/Downgrade](#)

This page shows details of the selected Virtual Machine. The On/Off buttons change its Power status. The Actions section lets you perform common tasks. The Activity Log shows VM transactions and lets you cancel pending tasks. Use the navigation at the top of the page to explore different aspects of this Virtual Machine.

#### Virtual Machine Details

|   |  |   |
|---|--|---|
|  | <b>Host Name</b> example.com                 | <b>Status</b> <span style="margin-left: 10px;">OFF</span> <span style="margin-left: 10px; background-color: green; color: white; padding: 2px 5px;">ON</span> |
|   | <b>Login</b> root / <a href="#">password</a> | <b>Template</b> CentOS 5.5 Apache x64   |

#### Virtual Machine Settings

|                     |        |               |          |
|---------------------|--------|---------------|----------|
| <b>Memory</b>       | 256 MB | <b>CPU(s)</b> | 1 CPU(s) |
| <b>CPU Priority</b> | 1 %    |               |          |

#### Actions

[Shut down Virtual Machine](#)

[Reboot Virtual Machine](#)

[Rebuild Virtual Machine](#)

[Virtual Machine Console](#)

[Manage Disks](#)

[Manage IP Addresses](#)

[Reset Root Password](#)

For detailed description of OnApp virtual machines functionalities and the tasks you can perform on VMs, refer to [OnApp documentation](#).

## Appendix A: Default permissions for user roles

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Here is the list of default permissions for the user roles in OnApp:

- See own virtual machines (virtual\_machines.read.own)
- See only own Monthly Bills Statistics (monthly\_bills.read.own)
- Change own password (users.change\_password.own)
- Create a new virtual machine (virtual\_machines.create)
- See own disks (disks.read.own)
- Migrate own virtual machine (virtual\_machines.migrate.own)
- Destroy own backup (backups.delete.own)
- Create an own backup (backups.create.own)
- Autobackup for own disk (disks.autobackup.own)
- See own base resources (base\_resources.read.own)
- See User Virtual Machine prices (users.read\_prices.vm\_prices)
- See User summary payments (users.read\_prices.summary\_payments)
- Manage Own Templates (templates.manage.own)
- See all data\_stores (data\_stores.read)
- Update own user (users.update.own)
- See own backups (backups.read.own)
- See User hourly prices (users.read\_prices.hourly\_price)
- Destroy own virtual machine (virtual\_machines.delete.own)
- Update own backup (backups.update.own)
- See all nameservers (nameservers.read)
- See all groups (groups.read)
- Destroy own Firewall Rules (firewall\_rules.delete.own)
- See own billing plan (billing\_plans.read.own)
- See list of own transactions (transactions.list.own)
- Migrate own load balancer (load\_balancers.migrate.own)
- See own users (users.read.own)
- See own mounted ISOs (iso\_joins.read.own)
- See own payments (payments.read.own)
- See own Firewall Rules (firewall\_rules.read.own)
- See User outstanding amount (users.read\_prices.outstanding\_amount)
- See list of own log items (log\_items.list.own)
- Update own disk (disks.update.own)
- Any power action on own virtual machines (virtual\_machines.power.own)
- Reset root password to own virtual machine (virtual\_machines.reset\_root\_password.own)
- See details of own transaction (transactions.read.own)
- See all ip addresses (ip\_addresses.read)

- Destroy own disk (disks.delete.own)
- See own resource limits (resource\_limits.read.own)
- Add own Firewall Rules (firewall\_rules.create.own)
- Umount own mounted ISOs (iso\_joins.delete.own)
- Update own virtual machine (virtual\_machines.update.own)
- Create a new disk (disks.create)
- See all payments (payments.read)
- See Own Virtual Machine Statistics (vm\_stats.read.own)
- See details of own log item (log\_items.read.own)
- Add IP address to own virtual machine (ip\_address\_joins.create.own)
- Update own Firewall Rules (firewall\_rules.update.own)
- Delete own transactions from logs (transactions.delete.own)
- See own IO Statistics (io\_stats.read.own)
- Create and Manage ISOs (isos.manage.own)
- Mount own ISO (iso\_joins.create.own)
- Delete own log item (log\_items.delete.own)
- Remove IP address from own virtual machine (ip\_address\_joins.delete.own)
- See User Backups/Templates prices (users.read\_prices.backups\_templates)
- Generate Own API key (users.update\_api\_key.own)
- Rebuild Network to own virtual machine (virtual\_machines.rebuild\_network.own)
- Console to own virtual machine (virtual\_machines.console.own)
- See all networks (networks.read)
- See User billing plan (users.read\_prices.billing\_plan)
- Convert own backup to template (backups.convert.own)
- See all Roles (roles.read)
- See IP addresses assigned to any virtual machines (ip\_address\_joins.read)
- See User monthly prices (users.read\_prices.monthly\_price)



## Appendix B: Document revisions

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### **V0.10, 12<sup>th</sup> March 2012**

- Corrected the info on adding a server using secure connection ([Adding an OnApp server to WHMCS](#) section)

### **V0.9, 13<sup>th</sup> February 2012**

- Updated [Setting up configurable options](#) and [Creating a product](#) sections with the info on bandwidth limits.
- Added [Setting up a bandwidth calculation cron job](#) section.

### **V0.8, 16<sup>th</sup> January 2012**

- Removed Default settings in OnApp section, as those are now set when creating a product.
- Added Creating a virtual machine chapter with step-by-step instructions on how customers can manage their VMs.
- Added Appendix A. Default permissions for user role chapter.
- Updated Setting up configurable options section to describe in detail the options specific to OnApp module.
- Restructured ToC.

### **v0.7, 12<sup>th</sup> December 2011**

- Updated installation procedure with the steps on installing OnApp PHP Wrapper
- Updated procedure of adding OnApp server to WHMCS
- Added missing parameters descriptions to Creating a product

### **v0.6, 2<sup>nd</sup> September 2011**

- Added changelog
- Format changes

### **v0.1/0.2/0.3/0.4/0.5**

- First release, various content and style edits