



## **VIRTUAL DATA CENTRE (VDC) USER GUIDE**

## **CONGRATULATIONS ON YOUR NEW VIRTUAL DATA CENTRE (VDC)**

Congratulations for selecting the Virtual Data Centre by Intrahost. Never before, has the web hosting customer had so much opportunity to maximise the potential of their online presence, whilst reducing overheads.

Throughout this guide, you will be learn how to: acquire additional resources, develop a high availability platform, improve the end users experience, have full control of your hosting solution and more importantly save money on your hosting fees.

With our resourceful control panel you can modify settings on your VDC. Above all else our VDC control panel is Hassle free! That's not all – if you're on move you can modify your Virtual Data Centre by using the OnAPP iPhone App that is available from the Apple iTunes Store.

## INTRAHOST VIRTUAL DATA CENTRE INTERFACE

### Dashboard Overview

The main overview of the Intrahost VDC Control Panel, the dashboard gives a brief insight of your VDC. Where you can see in real-time any changes including: the disk space used, memory available and any changes to the server.

The navigation on the left hand side allows you to implement additional resources quickly and efficiently. Within seconds, you can create a Virtual Machine from the dashboard, just by clicking on '**Create New Virtual Machine**'.

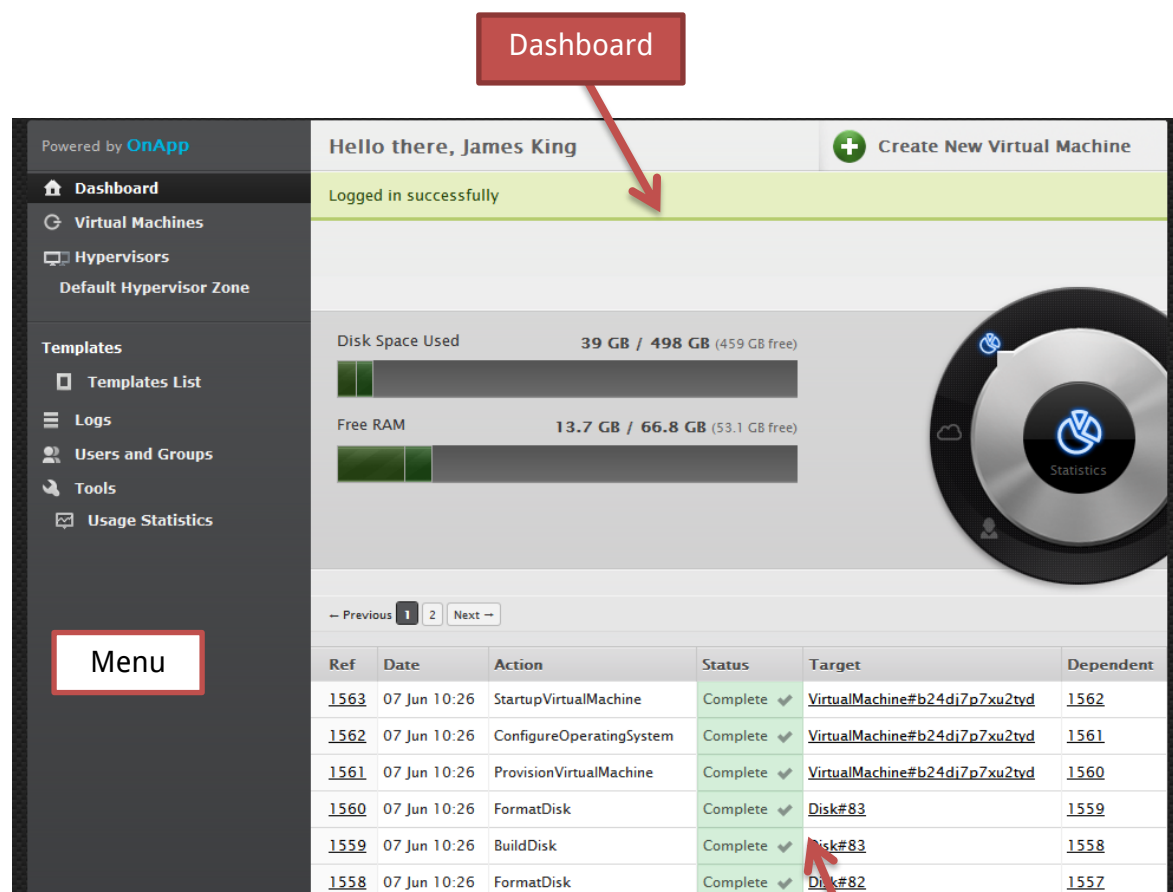


Fig 1 – Overview of the Control Panel Dashboard

## DASHBOARD OVERVIEW

The dashboard gives you an instant overview of 'Disk Space Used' and 'Free RAM' this is especially useful, if you're looking to upgrade as you can see what's available in the resources pool.

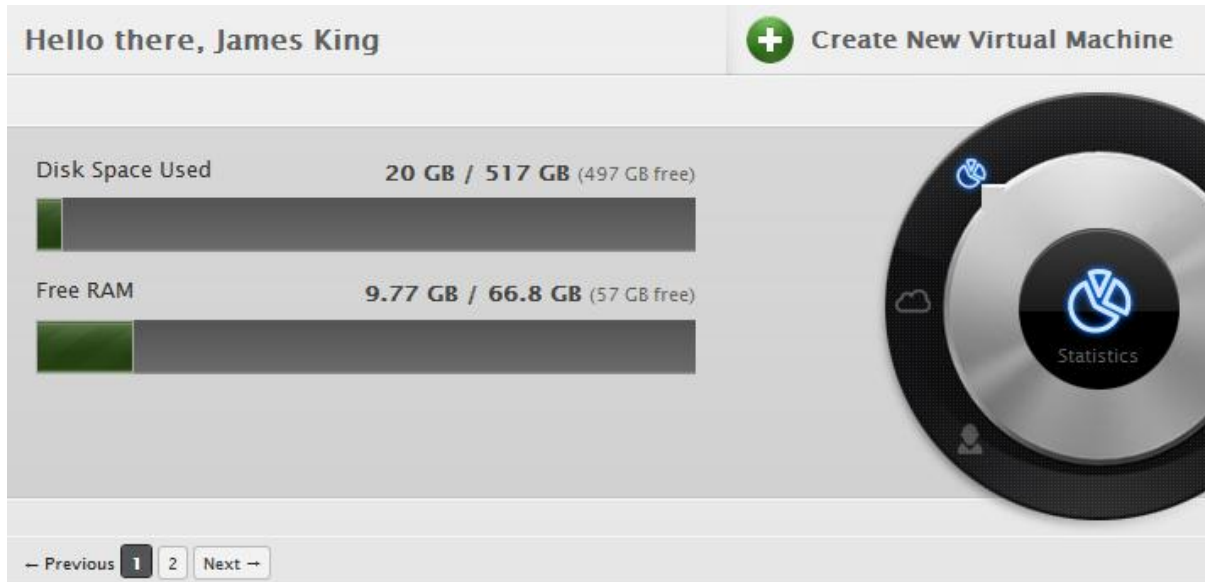


Fig 2 - Statistics tab on the Intrahost Dashboard VDC Control Panel

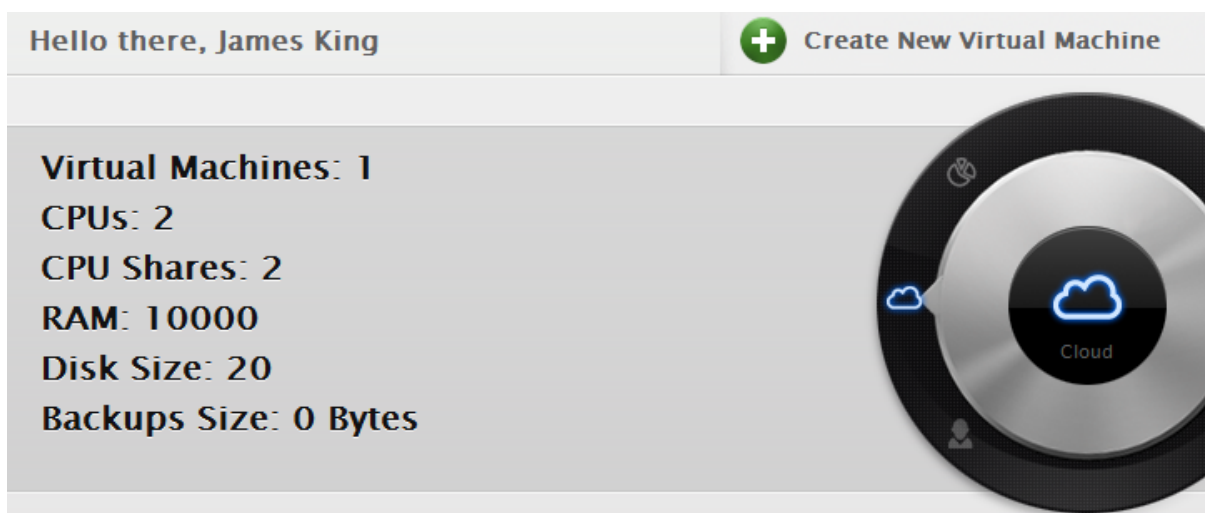


Fig 3 - Cloud tab on the Intrahost Dashboard VDC Control Panel

The Cloud Tab displays the number of Virtual Machines, CPUs, CPU Shares, RAM in (MB), Disk Size in (GB) and Backups Size.

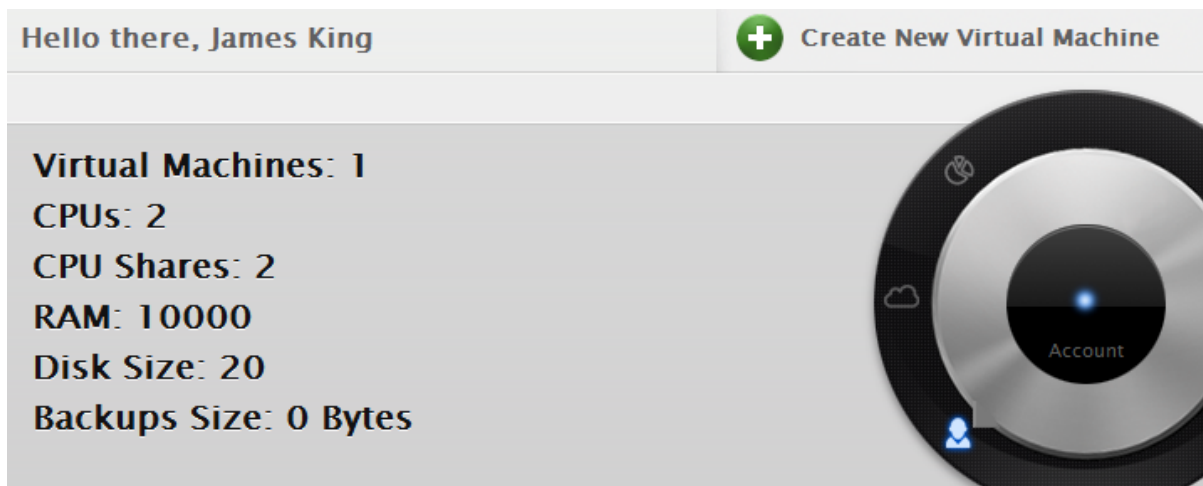


Fig 4 - Account tab on the Intrahost Dashboard VDC Control Panel

The Account Tab displays the all the resources being used in your VDC.

## VIRTUAL MACHINES

### How to create your own Virtual Machine

The Virtual Machines tab allows you to create a Virtual Machine effortlessly. In order to create your own WM – click on 'Virtual Machines' and 'Add New Virtual Machine'.

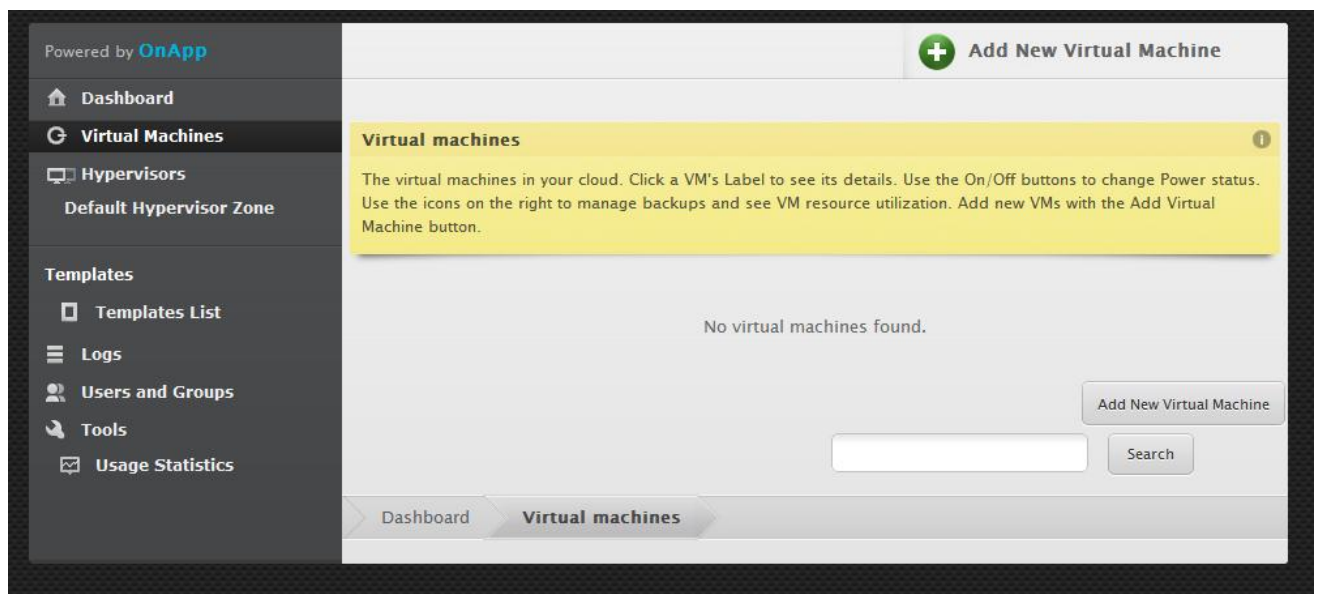


Fig 5 - Virtual Machine Menu

The screenshot shows the OnApp web interface for creating a new virtual machine. On the left is a dark sidebar with navigation links: Dashboard, Virtual Machines (selected), Hypervisors, Default Hypervisor Zone, Templates, Templates List, Logs, Users and Groups, Tools, and Usage Statistics. The main content area has a yellow header bar that says 'Add new virtual machine' with an information icon. Below this is a note: 'Complete the form and click the Create Virtual Machine button at the bottom of the screen. Please note that swap disk size must be greater than zero.' The form is titled 'Virtual machine properties' and contains three text input fields: 'Label', 'Hostname', and 'Password'. Below these is a 'Template' section with three dropdown menus: 'Operating system' (set to 'Linux'), 'Distribution' (set to 'Ubuntu'), and 'Template' (set to 'Ubuntu 10.04 LAMP x64').

Fig 6 - Creating your own VDC step 1

For the Virtual Machine Properties type in the following:

Label Name is for your own purposes

Hostname is the name of the server

Password the password to login into your server

### A template allows you to choose an Operating System

The Intrahost VDC Control Panel allows you to select which Operating System you'd like to use. For instances, you can set up a VM to run Ubuntu on a Linux server or even Windows 2008 on a Microsoft Windows Server.

## Select Your Resources

The screenshot shows a configuration window titled "Resources". It contains three rows of settings, each with a label, a slider, and a unit:

- RAM:** The slider is set to 128, with "MB" as the unit.
- CPU Cores:** The slider is set to 1.
- CPU Priority:** The slider is set to 1, with "%" as the unit.

Fig 7 – Select your resources – Create your own VDC part 2

Next select the resources you'd like in your VDC, just use the slider to select the level of resources you require.



The screenshot displays the configuration interface for creating a VDC, divided into four main sections:

- Primary Disk:** Includes a dropdown for 'Data Store Zone' (set to 'Default DataStore Zone') and a 'Primary disk size' input (set to '5' GB) with a slider below it.
- Swap Disk:** Includes a dropdown for 'Data Store Zone' (set to 'Default DataStore Zone') and a 'Swap disk size' input (set to '0' GB) with a slider below it.
- Network Configuration:** Includes a dropdown for 'Network Zone' (set to 'per Mbps') and a 'Port Speed' section with an 'Unlimited' checkbox and a slider set to '1' Mbps.
- Automation Settings:** Includes two checkboxes: 'Required automatic backup' (unchecked) and 'Build virtual machine automatically' (checked).

Four red callout boxes provide additional context:

- Primary Disk is the Primary Disk Location.
- Swap Disk is the Primary Disk Location.
- Network Configuration allows you to increase the network speed of VDC.
- Automation Settings saves you time.

Fig 8 – Select your resources - Create your own VDC part 3

Once all these items have been completed your VM when be created within a few moments. Please note the more resources that you acquire, the more expensive your VM will cost to operate. Therefore, it is a wise decision to order only what you will need.

## Modify your VM (Virtual Machine)

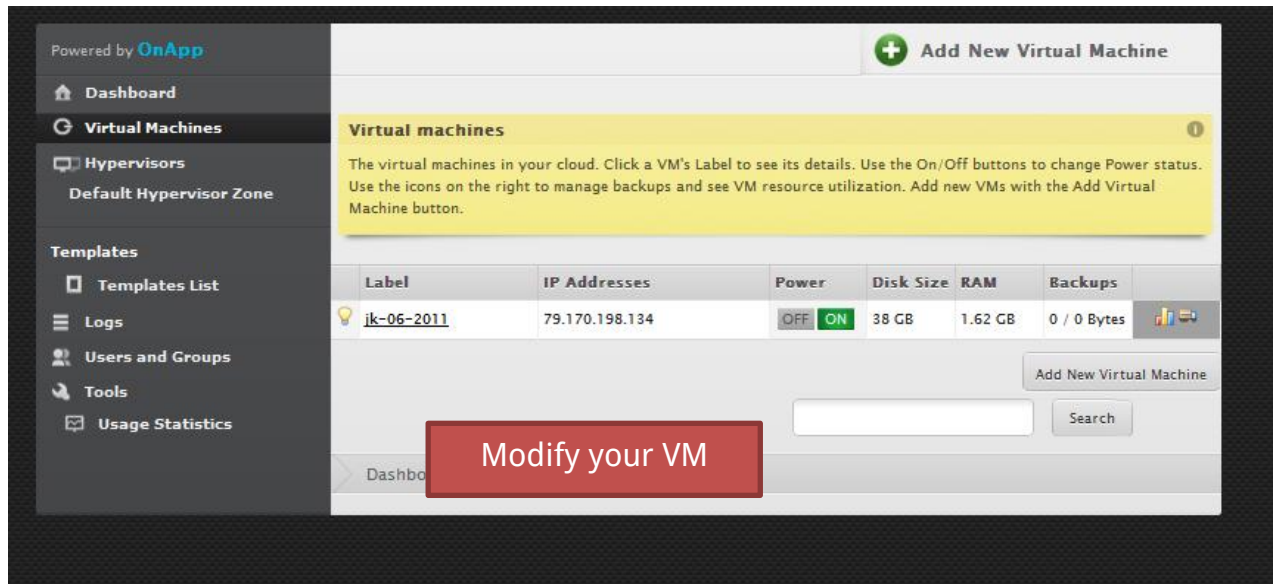


Fig 9 – Modify your Virtual Machine

On The Virtual Machines menu, you'll be introduced to the VMs that have been created. To modify your VM click on the label name of your Virtual Machine.

## Modify your Virtual Machine

Once you've clicked on your server label, you can modify any Virtual Machine details and take actions. On the Virtual Machines – Overview page you can operate a variety of actions for instances: reboot or shut down your Virtual Machines, edit Firewall rules, reset root password, adjust resource allocation, rebuild your VM and rebuild network. Your VDC is fully customisable and available.

The screenshot displays the 'Virtual Machine Overview' page for a VM named 'jking'. The interface includes a sidebar with navigation options like Dashboard, Virtual Machines, Hypervisors, and Templates. The main content area has tabs for Overview, Networking, Storage, Properties, CPU Usage, and Console. A yellow banner at the top provides instructions on using the On/Off buttons and the Actions tools. Below this, the VM details are listed, including Hostname, Login, Status (ON), Template (Ubuntu 10.04 LAMP x64), Memory (1.62 GB), CPU(s) (4), CPU Priority (13%), IP Addresses (79.170.198.134), Network Speed (51Mbps), Disk Size (38 GB), Hypervisor (Cloud02), Owner (James King), Disk backups (0 / 0 Bytes), and Price per hour powered ON/OFF (£0.00000 / £0.00000). A 'Note' section is also present. The 'Actions' section contains a grid of buttons for various operations: Reboot Virtual Machine, Reboot in Recovery, Shut down Virtual Machine, Migrate Virtual Machine, Reset Root Password, Rebuild Virtual Machine, Edit Firewall Rules, Adjust Resource Allocation, Rebuild Network, Segregate Virtual Machine, and Edit Note. Below the actions is the 'Virtual Machine Activity Log' table, which shows a list of recent actions with columns for Ref, Date, Action, Status, Target, and Dependent. The table contains three entries, all with a status of 'Complete'. At the bottom, there is a 'Cancel All Pending Tasks for this virtual machine' button and a breadcrumb trail: Dashboard > Virtual machines > jk-06-2011.

Ref	Date	Action	Status	Target	Dependent
1575	07 Jun 14:03	StartupVirtualMachine	Complete	VirtualMachine#u71718e3k51lo3	1574
1574	07 Jun 14:03	ConfigureOperatingSystem	Complete	VirtualMachine#u71718e3k51lo3	1573
1573	07 Jun 14:03	ProvisionVirtualMachine	Complete	VirtualMachine#u71718e3k51lo3	1572

Fig 10 – Virtual Machine Overview

The CPU Usage button displays the usage of your CPU in a bar chart, this graph will help you to determine whether you require additional, resources for your VM.

Note: On Linux VMs your capable of accessing the Console, this is a KVM (Keyboard Video Mouse) alternative for accessing your server.

## Networking Options

Port speed is the speed of the connection - this can be changed.

The screenshot shows the 'Edit Network Interface' page in the OnApp interface. The left sidebar contains navigation links: Dashboard, Virtual Machines, Hypervisors, Default Hypervisor Zone, Templates (Templates List, Logs, Users and Groups, Tools, Usage Statistics). The main content area has tabs for Overview, Networking (selected), and Storage. Under Networking, there are sub-tabs for Network Interfaces, Firewall, and IP Addresses. A yellow banner at the top of the main area says 'Edit Network Interface' and 'To edit this network interface, complete the form below and click the Save Network Interface button.' The form is divided into two sections: 'Identification' and 'Connectivity'. In the 'Identification' section, the 'Label' is 'eth0'. In the 'Connectivity' section, 'Physical Network' is set to 'public (Cloud02)', 'Port Speed' is set to '1 Mbps' (with an 'Unlimited' option), and 'Primary Interface?' is checked. A 'Save Network Interface' button is at the bottom right. A breadcrumb trail at the bottom reads: Dashboard > Virtual machines > jk-06-2011 > Network Interfaces.

Fig 11 – Networking interface

## Modify Firewall

You can modify your Firewall needs throughout your VDC. The Firewall settings allow you to keep your servers safe and secure.

The screenshot shows the OnApp web interface for configuring Firewall Rules. The left sidebar contains navigation links: Dashboard, Virtual Machines, Hypervisors, Default Hypervisor Zone, Templates (Templates List, Software Licenses, Template Store), Logs, Settings, Users and Groups, Tools, Alerts, Usage Statistics, Sysadmin Tools, and Help. The main content area has tabs for Overview, Networking, and Storage, with sub-tabs for Network Interfaces, Firewall, and IP Addresses. The Firewall Rules section includes a yellow informational box explaining how to add and manage rules. Below this, there is a form to create a new rule with fields for Interface (eth0), Command (ACCEPT), Source Address, Destination Port, and Protocol (TCP), along with a Save button. A table titled 'Default Firewall Rules' shows the current rule set. At the bottom right, there is an 'Apply Firewall Rules' button. The breadcrumb trail at the bottom reads: Dashboard > Virtual machines > jk-2010 > Firewall Rules.

Powered by **OnApp**

Dashboard  
Virtual Machines  
Hypervisors  
Default Hypervisor Zone

Templates

- Templates List
- Software Licenses
- Template Store

Logs

Settings

Users and Groups

Tools

Alerts

Usage Statistics

Sysadmin Tools

Help

Overview Networking Storage

Network Interfaces Firewall IP Addresses

**Firewall Rules**

The firewall rules running for this VM. To add a new rule, choose a network interface, command and protocol, enter a source IP and port, and click the Save button. Click the icons to edit, delete and prioritize rules (up/down arrows). To save a change in rule priorities, click the Apply Firewall Rules button.

Interface Command Source Address Destination Port Protocol

eth0 ACCEPT [ ] [ ] TCP Save

Rule #	Source Address	Destination Port	Protocol	Command
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**Default Firewall Rules**

Interface Command

eth0 ACCEPT Save

Apply Firewall Rules

Dashboard > Virtual machines > jk-2010 > Firewall Rules

Fig 12 – Modify Firewall

## IP Addresses

For VDC users that wish to create multiple private cloud servers, allocating and assigning new IP addresses are beneficial.

### How to add additional IP Addresses?

Click on the '**Allocate New IP Address Assignment**' button.

The screenshot shows the OnApp web interface. On the left is a dark sidebar with navigation links: Dashboard, Virtual Machines, Hypervisors, Default Hypervisor Zone, Templates (with sub-links for Templates List, Software Licenses, and Template Store), Logs, Settings, Users and Groups, Tools, Alerts, Usage Statistics, Sysadmin Tools, and Help. The main content area has tabs for Overview, Networking, and Storage. Under the Networking tab, there are sub-tabs for Properties, CPU Usage, and Billing Statistics. A yellow informational box titled 'IP Addresses for this virtual machine' contains text explaining that IP addresses are allocated to the VM and may need manual configuration. Below this is a table with the following data:

IP Address	Netmask	Gateway	Physical Network
79.170.198.136	255.255.255.0	79.170.198.1	public (Cloud02) (on eth0 interface)

Below the table are two buttons: 'Rebuild Network' and 'Allocate New IP Address Assignment'. At the bottom, a breadcrumb trail shows: Dashboard > Virtual machines > jk-2010 > IP Addresses for this VM.

Fig 13 – IP Addresses

- 1: Select your **Network Interface from the drop down list below.**
- 2: Select IP Address from the IP Address drop down menu.
- 3: Click on 'Add IP Address Assignment'

Powered by **OnApp**

Dashboard  
Virtual Machines  
Hypervisors  
Default Hypervisor Zone

Templates  
Templates List  
Logs  
Users and Groups  
Tools  
Usage Statistics

Overview Networking Storage  
Network Interfaces Firewall IP Addresses

**Allocate New IP Address from Global Pool**

IP address allocation ensures that hypervisors allow access to the virtual machine. Any IP address you wish to use on this virtual machine must be allocated to the VM first.

**Network Interface**

Select which network interface this IP address should be assigned to. Additional IP addresses must be allocated to a virtual machine before they can be used.

Network interface **eth0**

**Select IP Address from IP Pool**

You can use IP addresses already used for virtual machines, but only one server should be online at a time.

☐ Please show me used IP pool

Select which IP address you wish to assign. If the IP address you require is not in the list, contact your system administrator.

IP Address

Add IP Address Assignment

Dashboard > Virtual machines > jk-2010 > IP Addresses for this VM

Fig 14 – Selecting an IP address

## Storage Settings

In Storage Settings you can create automated backups and edit your backup systems. You can modify and edit the storage space as required. The Autobackup feature allows you to make an automated backup of your disk drive. All backups are made on a daily basis.

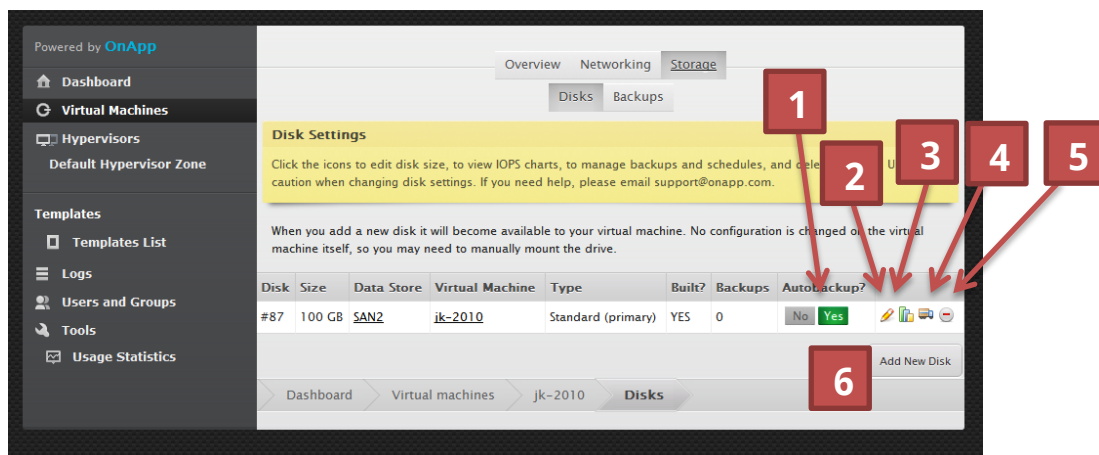


Fig 15 – Storage Settings

### 1 – Autobackup

The Auto backup feature allows you to automatically backup your data.

### 2 – Edit disk parameters

This option allows you to increase the capacity of your hard disk.

### 3 – Disk usage

You can monitor the disc space used on your virtual machine. This resourceful information allows you to decide whether you need additional resource.

### 4 – Backups list

This section is a list of your current backups.

### 5- Destroy disk

This is where you can remove a virtual machine.

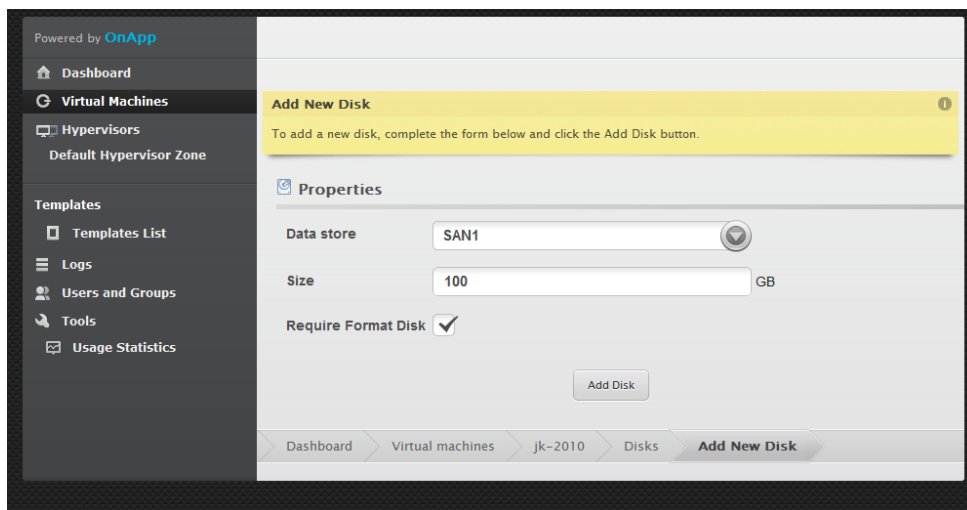
### 6 – Add a new disk

This is where you can remove a virtual machine.



## How to add a new disk?

Adding a new disk is ideal for high availability plus a number of new opportunities are available. For instances, you can create multiple disks on a number of SANs to reduce down time. If you have a high traffic online presence, it is imperative to reduce down time drastically. Therefore, when creating a new disk, ensure that you use a separate SAN. In the event of a SAN server failing you have an alternative place to access your storage.



The screenshot shows the 'Add New Disk' interface in the OnApp control panel. On the left is a sidebar menu with options: Dashboard, Virtual Machines, Hypervisors, Default Hypervisor Zone, Templates, Templates List, Logs, Users and Groups, Tools, and Usage Statistics. The main area has a yellow header 'Add New Disk' with a sub-header 'To add a new disk, complete the form below and click the Add Disk button.' Below this is a 'Properties' section with three fields: 'Data store' set to 'SAN1', 'Size' set to '100' GB, and 'Require Format Disk' checked. An 'Add Disk' button is at the bottom. A breadcrumb trail at the bottom reads: Dashboard > Virtual machines > jk-2010 > Disks > Add New Disk.

Fig 16 – Create a new disk

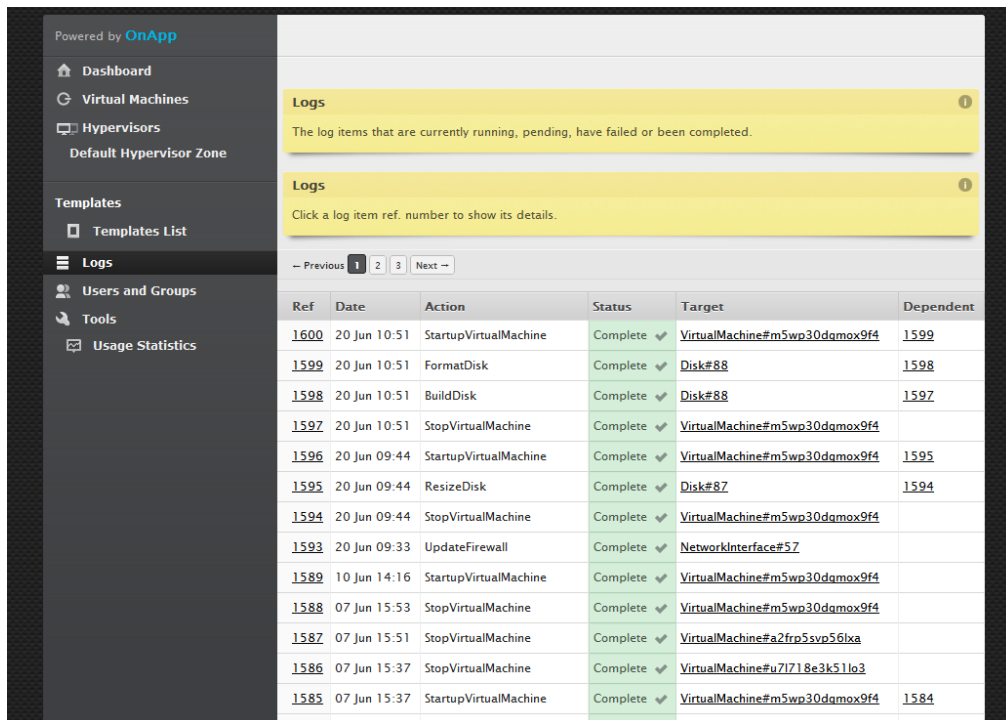
## Templates

The Templates section is a list of operating systems that can be added to your virtual machine quickly and efficiently. For example, you may need an additional Linux server - the control panel needs installation information about each operating system. The templates call the information easily and effectively.

Also in the templates section you can access your virtual machines by choosing the current operating system that you are using.

## Logs

The Logs section records any changes to your virtual machine(s).



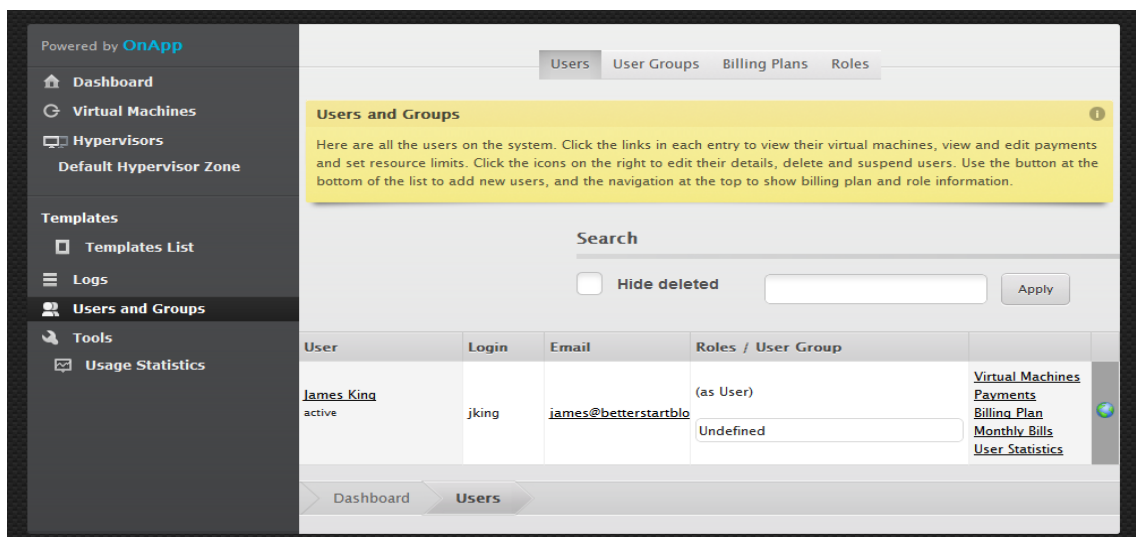
The screenshot shows the OnApp interface with the 'Logs' section selected in the sidebar. The main content area displays a table of system logs. Above the table, there are two yellow informational boxes: the first states 'The log items that are currently running, pending, have failed or been completed.' and the second says 'Click a log item ref. number to show its details.' Below these boxes is a pagination control showing 'Previous', '1', '2', '3', and 'Next'. The table has columns for Ref, Date, Action, Status, Target, and Dependent. The 'Status' column uses green checkmarks to indicate completed actions.

Ref	Date	Action	Status	Target	Dependent
<a href="#">1600</a>	20 Jun 10:51	StartupVirtualMachine	Complete ✓	<a href="#">VirtualMachine#m5wp30dqmox9f4</a>	<a href="#">1599</a>
<a href="#">1599</a>	20 Jun 10:51	FormatDisk	Complete ✓	<a href="#">Disk#88</a>	<a href="#">1598</a>
<a href="#">1598</a>	20 Jun 10:51	BuildDisk	Complete ✓	<a href="#">Disk#88</a>	<a href="#">1597</a>
<a href="#">1597</a>	20 Jun 10:51	StopVirtualMachine	Complete ✓	<a href="#">VirtualMachine#m5wp30dqmox9f4</a>	
<a href="#">1596</a>	20 Jun 09:44	StartupVirtualMachine	Complete ✓	<a href="#">VirtualMachine#m5wp30dqmox9f4</a>	<a href="#">1595</a>
<a href="#">1595</a>	20 Jun 09:44	ResizeDisk	Complete ✓	<a href="#">Disk#87</a>	<a href="#">1594</a>
<a href="#">1594</a>	20 Jun 09:44	StopVirtualMachine	Complete ✓	<a href="#">VirtualMachine#m5wp30dqmox9f4</a>	
<a href="#">1593</a>	20 Jun 09:33	UpdateFirewall	Complete ✓	<a href="#">NetworkInterface#57</a>	
<a href="#">1589</a>	10 Jun 14:16	StartupVirtualMachine	Complete ✓	<a href="#">VirtualMachine#m5wp30dqmox9f4</a>	
<a href="#">1588</a>	07 Jun 15:53	StopVirtualMachine	Complete ✓	<a href="#">VirtualMachine#m5wp30dqmox9f4</a>	
<a href="#">1587</a>	07 Jun 15:51	StopVirtualMachine	Complete ✓	<a href="#">VirtualMachine#a2frp5vyp56lxa</a>	
<a href="#">1586</a>	07 Jun 15:37	StopVirtualMachine	Complete ✓	<a href="#">VirtualMachine#u7i718e3k51lo3</a>	
<a href="#">1585</a>	07 Jun 15:37	StartupVirtualMachine	Complete ✓	<a href="#">VirtualMachine#m5wp30dqmox9f4</a>	<a href="#">1584</a>

Fig 17 – Server logs

## Users and Groups

This section is dedicated to: users, user groups, billing plans where you can your review daily expenses and your billing plan.



The screenshot shows the OnApp interface with the 'Users and Groups' section selected in the sidebar. The main content area has tabs for 'Users', 'User Groups', 'Billing Plans', and 'Roles'. Below the tabs is a yellow informational box stating 'Here are all the users on the system. Click the links in each entry to view their virtual machines, view and edit payments and set resource limits. Click the icons on the right to edit their details, delete and suspend users. Use the button at the bottom of the list to add new users, and the navigation at the top to show billing plan and role information.' Below this is a search bar with a 'Hide deleted' checkbox and an 'Apply' button. The table has columns for User, Login, Email, Roles / User Group, and a set of links for each user. The 'User' column includes a status indicator (e.g., 'active').

User	Login	Email	Roles / User Group	
<a href="#">James King</a> active	jking	<a href="#">james@betterstartblo</a>	(as User) Undefined	<a href="#">Virtual Machines</a> <a href="#">Payments</a> <a href="#">Billing Plan</a> <a href="#">Monthly Bills</a> <a href="#">User Statistics</a>

Fig 18 – An overview of user settings

## Tools and Usage Statistics

The Usage Statistics gives you daily breakdown of your hosting usage. The usage statistics allows you to assess and evaluate whether you need additional resources. Over a period of time you can predict which days of the week you require more resources.

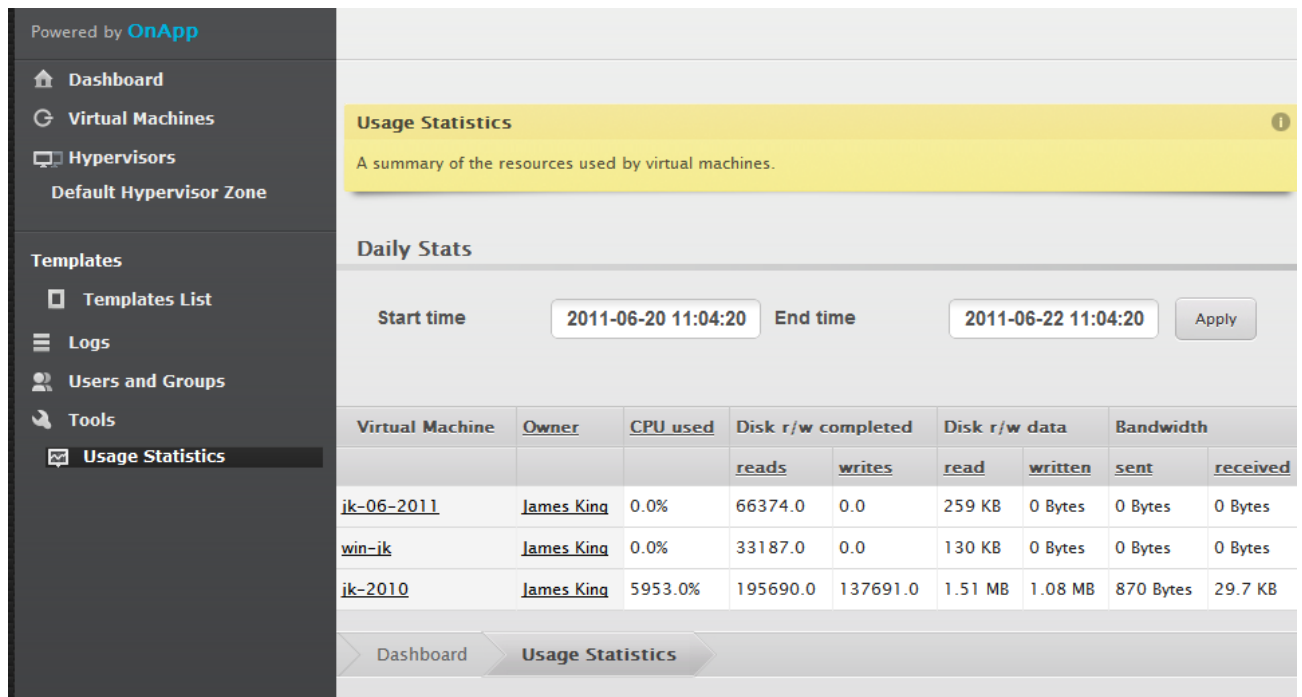


Fig 19 – Usage statistics

## Further Assistance

If you require further assistance, the Intrahost Fast and Friendly support team will be more than happy to assist you with any technical issues.

Please visit our [ticketing system](#) or [Knowledgebase](#) on the Intrahost website.

Or call Intrahost on **0845 680 3812**.