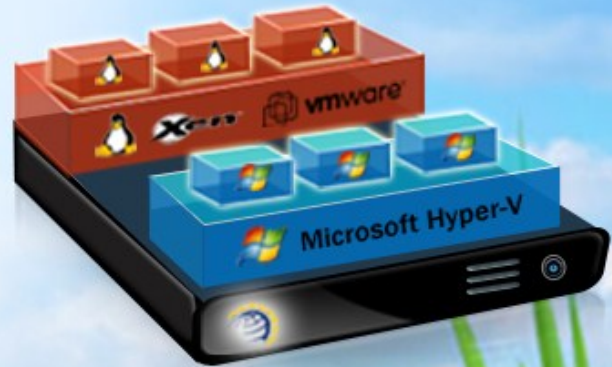


## Offer Cloud Infrastructure as a Service

Automated Virtualization for Windows & Linux

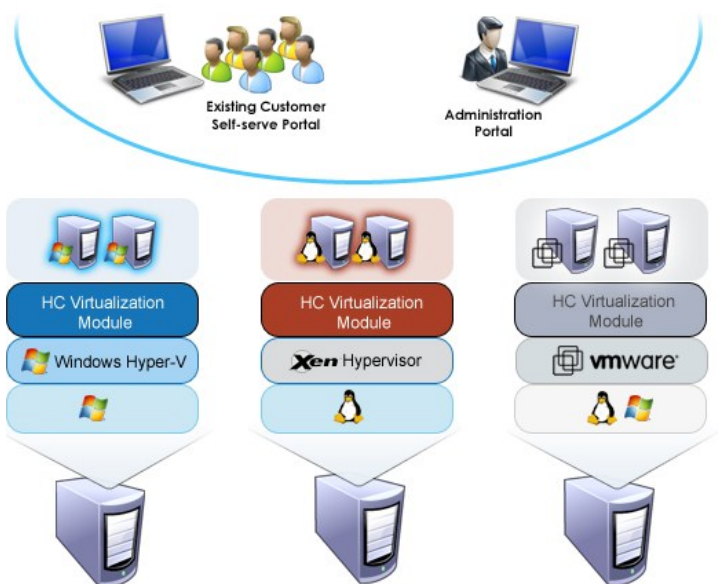
- ✓ Microsoft Hyper-V
- ✓ Xen Hypervisor
- ✓ VMware ESXi 5



Hosting Controller offers a full solution suite for Infrastructure and Virtualization providers. This includes automatic provisioning of virtualized partitions on both Windows and Linux based servers.

Hosting Controller supports vmware and XEN on Linux and Hyper-V on Windows to create virtualized partitions on the fly on command from the order management system. It offers real-time service management to activate, suspend and resume partitions.

It also comes with an end-user self-serve portal that allows the end user to manage his virtualized partitions himself.



### ► HC Virtualization Suite

Hosting Controller Module for Virtualized Infrastructure solution brings hosting companies of any size into virtualization market and allows them to offer Virtual Private Servers (VPS) for both Windows & Linux to their customers. It combines HC provisioning framework with VMware ESXi 5, Microsoft technology of Hyper-V & Xen Hypervisor technology for VPS provisioning.

# HC VPS Solution based on:

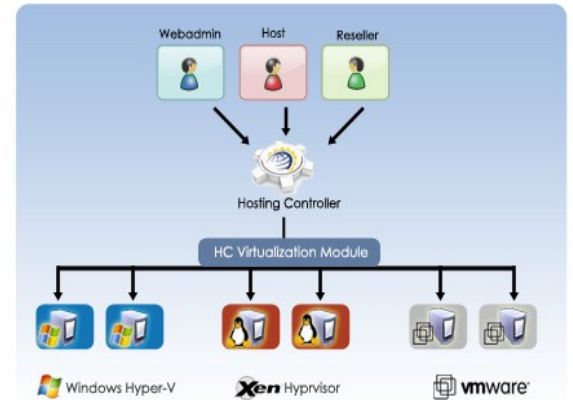
- Microsoft Hyper-V
- Xen Hypervisor (Paravirtualization)
- VMware ESXi 5



HC Virtualization enables hosting companies and CSPs to automate cloud infrastructure provisioning and empowers end-users with a web-based control panel providing rich capabilities to manage their own servers.

HC Virtualization Module supports multi-tiered monetization of all features. It offers a layer for resellers with their own self-serve. It offers a self-serve for individual tenants to administer their partitions themselves.

Quota manager enables the service provider to monetize each feature in different ways



## ► HC Virtualization Module Benefits

Based on Microsoft Hyper-V, Xen Hypervisor & VMware ESXi technology

- Full VPS isolation
- Dedicated memory for each VPS
- Provisioning for Windows VPS (Microsoft Hyper-V)
- Provisioning for Linux VPS (Xen Hypervisor)
- Provisioning for VMware ESXi 5
- Cost-effective
- Automated VPS provisioning in a few minutes
- Web-based control panel for VPS users with following feature
  - Start, Stop, Reboot VPS
  - DVD drive management
  - Snapshots management
  - Networking management
- Automated VPS provisioning in a few minutes
- More VPS on the same hardware - Windows Server 2008 Server Core guarantees minimal host overhead and maximum resources for your customers. Hyper-V Server 2008 is also supported which is ideal for development and testing purposes
- Complete automation of all business operations
- Ease of deployment
- Affordable price

# HC Virtualization Module Features

## Host Admin Features

- Setup Virtualization module
  - Virtual servers location
  - Virtual hard drive settings
  - Network adapter configuration
  - External network settings
  - Private network settings
  - Cost-effective
  - Automatic start action
  - Automatic stop action
- Manage the pool of VPS IP addresses available to "External" and "Private" networks

## Reseller Features

- Setup hosting plans with "Virtualization" resource
- Setup "VPS Setup Letter" template under reseller account
- Setup VPS policies for administrator password

## WebAdmin Features

- View the list of virtual machines
  - Search VPS by Name, External IP, Private IP
- View VPS details
  - Status
  - Heartbeat
  - Screen thumbnail
  - CPU utilization
  - Memory utilization
  - Disk space allocation
- VM bandwidth monitoring is supported in HC through [Hosts Tools Hyper-V Bandwidth Meter](#) for Hyper-V and VM bandwidth calculation for Xen on Linux is available through built-in HC component
  - Configurable actions on bandwidth over usage
  - Do Nothing
  - CPU utilization
  - Suspend VM Disk s
  - Resume VM
  - Sell Add-on
- Create VPS (if allowed in purchased plan)
  - Standard configuration (defined on hosting plan level)
  - Custom configuration (from available resources defined on hosting plan level)
  - Specify VPS name
  - Specify OS template
- Change VPS configuration (if allowed in plan)
- Change VPS administrator password

# HC Virtualization Module Features

- Access VPS via Remote Desktop Web Connection (RDWC)
- Manage VPS State
  - Start, Turn Off, Shut down
  - Pause, Resume
  - Reboot (Forced Shut down then Start)
- Manage VPS Snapshots
  - List
  - Create
  - Apply
  - Delete
- Manage VPS Networking
  - View external network IP addresses
  - View private network IP addresses
  - Connection (RDWC)
- VPS Tools
  - Delete VPS
  - Edit VPS (RAM, Harddisk, CPU cores)
  - Reset VPS Password

## Automated VPS Provisioning

- Fully-automated provisioning of new VPS based on prepared OS templates
- Assigning computer name
- Setting administrator account password
- Automatic Assignment of Public/Private IP Addresses
- Sysprep support
- Sending VPS summary email

## ► HC Virtualization Module System Requirements

Pioneer in Windows hosting control panel, Hosting Controller has been offering a wide range of automation solutions and products since 1999. Whether its Windows hosting or Linux hosting, Enterprise Solutions or Cloud applications, Virtualization through Hyper-V, Xen Hypervisor or VMware ESXi 5, HC provides a unified hosting control panel for automated provisioning & management.

## Software

### Windows (Hyper-V)

- Windows Server 2008 Standard x64 Edition or above with Hyper-V role. Hyper-V Server 2008 is also supported. We recommend Windows Server 2008 Datacenter Edition which allows unlimited number of virtual machines without additional licensing. You may lease Windows Server 2008 Datacenter Edition with Hyper-V from your data center or dedicatedserver providers.
- It is recommended to have a clean install of x64 edition of Windows Server 2008 to be able to use the Hyper-V technology.
- HC9 Windows License
- HC Virtualization Module License

## Linux (Xen Hypervisor)

- GNU/Linux OS like CentOS, Debian etc with Xen Hypervisor.
- HC9 Linux or HCnix License
- HC Virtualization Module License

## VMware ESXi 5

- Windows 2008 Server with HC9 (This is the server where HC9 and [VMware-viclient](#) & [VMware-VIX API](#) will be installed. This server will be added in HC cluster as Virtualization Server).
- HC9 Windows License
- HC Virtualization Module License

## Hardware

### Windows (Hyper-V)

- 64-bit system with hardware-assisted virtualization enabled (AMD processor with AMD-V technology or Intel processor with Intel-VT technology) and data execution prevention (DEP) is required.

### Linux (Xen Hypervisor)

- x86, x86\_64, IA64, ARM, and other CPU architectures.

### VMware ESXi 5

- VMware ESXi 5 compatible server. This is the machine which will be used to provision VPS. However HC software itself will not be installed on this server. Intel Xeon 56xx Series or Intel Xeon 75xx Series.
- Windows 2008 Server with HC9 (This is the server where HC9 and VMware-viclient & VMware-VIX API will be installed. This server will be added in HC cluster as Virtualization Server).

## ► Enable Virtualization Server in HC Panel under Global Settings

The screenshot illustrates the process of enabling the Virtualization Server in the HC Panel. It is divided into four numbered steps:

- Step 1:** A 'Cluster Configuration' window is open, showing a 'Manage Servers' menu. The 'Cluster Settings' option is highlighted with a red box.
- Step 2:** The 'Cluster Settings' window is shown with the 'Virtualization Server' tab selected. The 'Virtualization Server' checkbox is checked.
- Step 3:** The 'Options' section is expanded, and the 'Hyper-V' checkbox is checked, while 'VMWare' is unchecked.
- Step 4:** The 'Save Settings' button is highlighted with a red box.

# Add Virtualization Server in HC Panel

**Cluster Configuration** 1

Manage Servers 2

- My Servers
- Add Server
- Cluster Settings
- License Activation

Manage Servers :: Add Server

**Add a Server**

Friendly Name: 3 Hc-host

Primary IP Address: 192.168.0.111

Operating System: Windows Family

What is the Role of this Server in the Cluster?

Server Role	Role Capacity	Purposing
4 <input checked="" type="checkbox"/> Virtualization Server	30 Virtual Machines	Everyone(Reseller, End User)

5 Next >>

Manage Servers :: Add Server :: Virtualization Server

**Virtualization Server**

**General Information**

Virtualization Server Type: Hyper-V

Server Name: 6 Hc-host

Administrator: democontroller\administrator

Password: \*\*\*\*\*

Confirm Password: \*\*\*\*\*

Connect Server: 7 **Connect** Server connected successfully.

**Virtualization Server Information**

Hyper-V Root Path: d:\VirtualMachines **Browse**

**Network Information**

External Network: 8 External Network

Preferred DNS: 192 . 168 . 0 . 1

Alternate DNS: 192 . 168 . 0 . 2

Internal Network: 9 Internal Network

**Bandwidth Management Information**

Bandwidth Management:  Turn On

Bandwidth Tools: Hyper-V Bandwidth Meter http://www.hoststools.com

Bandwidth Parser Path: c:\program files\bw\hyperv\parsercmd.exe **Browse**

Bandwidth Log Folder: c:\program files\bw\hyperv\logs **Browse**

Bandwidth Report Folder: c:\program files\bw\hyperv\reports **Browse**

10 **Add Server**

## ➤ Adding OS Templates

**Panel Configuration** 1

- My Account
- Customer Settings
- Configure Services
- Exchange Module Configuration
- Virtualization Module Configuration
- OS Templates
- 2 **Add OS Template**
- Public IP Addresses
- Private IP Addresses

Virtualization Module Configuration :: Add OS Template

**Add OS Template**

OS Template Information

Virtualization Server: Hc-vm01 (192.168.0.54)

Template Name: 3 Win 2008 Std x64

Base OS Type: Windows Server 2008 Standard (64-bit)

Virtual Hard Disk Path: e:\virtual machines\238.vhdc **Browse** 4

5 **Add OS Template**

# Adding Public IP Addresses

**Panel Configuration** 1

- My Account
- Customer Settings
- Configure Services
- Exchange Module Configuration
- Virtualization Module Configuration 2
  - OS Templates
  - Add OS Template
  - Public IP Addresses**
  - Private IP Addresses

Virtualization Module Configuration :: Public IP Addresses

**IP Manager (Public IPs)**

Select Server: vWin2003 (192.168.0.59)

IP Address	Subnet Mask	Gateway	Status	Action
No IP Address found.				

3 [ Add Public IPs ]

Virtualization Module Configuration :: Public IP Addresses

**IP Manager (Public IPs)**

Select Server: vWin2003 (192.168.0.59)

IP Address	Subnet Mask	Gateway	Status	Action
No IP Address found.				
[ Add Public IPs ]				
IP Address Range :	192 . 168 . 0 . 6	To 10		
Subnet Mask :	255 . 255 . 255 . 255			
Default Gateway :	192 . 168 . 0 . 1			

Specify the required 4

5 [ Add Public IPs ]

## ➤ Adding a Hosting Plan

**Hosting Plans** 1

- Manage Plans 2
  - My Plans
  - Add Plan**
  - Sold Plans
  - Add-Ons
  - Resource Properties

Manage Plans :: Add Plan :: General Information

General Information | Billing Information | Plan Resources

**Basic Information**

Plan Name: Silver Plan \*

Plan Description: [Empty]

Cancellation Policy: No Cancellation Policy

Plan Type:  Windows  Linux

Visible to all Resellers:  Yes

Visible to selected list of Resellers:  reseller  reseller2

Plan Status:  Available  Unavailable

Specify the required information

3 Next >>

## ➤ Adding a Virtual Machine

**Hosting Services** 1

- Manage Websites
- Manage DNS
- Manage Databases
- Manage Hosted Organizations
- Manage Exchange
- Manage BlackBerry
- Manage SharePoint
- Manage Communication Server
- Manage Dynamics CRM
- Manage Virtualization 2
  - Virtual Machines
  - Add Virtual Machine**

Manage Virtualization :: Add Virtual Machine

Add Virtual Machine | Virtual Machine Summary

Specify the required information

**General Information**

Virtual Machine Name: VM \* [Remaining : Unlimited]

Description: VM crested for Screenshots

Administrator Name: Administrator

Administrator Password: \*\*\*\* \*

Confirm Password: \*\*\*\* \*

Virtual Machine Owner: VM-User

**OS Template Information**

OS Template: OSTemplate

**Virtual Machine Settings**

CPU Cores: 1 [Remaining : 2]

DVD Drive :	<input type="checkbox"/> DVD Installed	
Ram Size (MB) :	1024	* [Remaining : 1024]
Virtual Hard Disk Size (GB) :	25	* [Remaining : 25]
Number of Snapshots :	1	* [Remaining : 3]
External Network :	<input checked="" type="checkbox"/> Enable	
Number of External IPs :	1	[Remaining : 4]
Internal Network :	<input checked="" type="checkbox"/> Enable	
Number of Internal IPs :		[Remaining : 1]
		<b>3</b> Next >>

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Founded in 1999, Hosting Controller is a cloud hosting automation solution for web hosts and cloud based service providers. It allows them to manage both Windows & Linux servers simultaneously as part of a single cluster. In addition to shared hosts, HC offers a full solution suite for hosted Enterprise Applications creating a shared multi-tenant environment for automatic provisioning of Hosted Exchange 2007/2010, BlackBerry, SharePoint, Lync and Dynamics CRM. It also offers a full automation solution for Infrastructure and Virtualization providers offering virtualized partitions on both Windows and Linux based servers through VMware ESXi 5, Hyper-V technology & Xen Hypervisor technology for Linux! Hosting Controller Inc. is based in Richmond, BC, Canada and has customers in 125 countries worldwide.