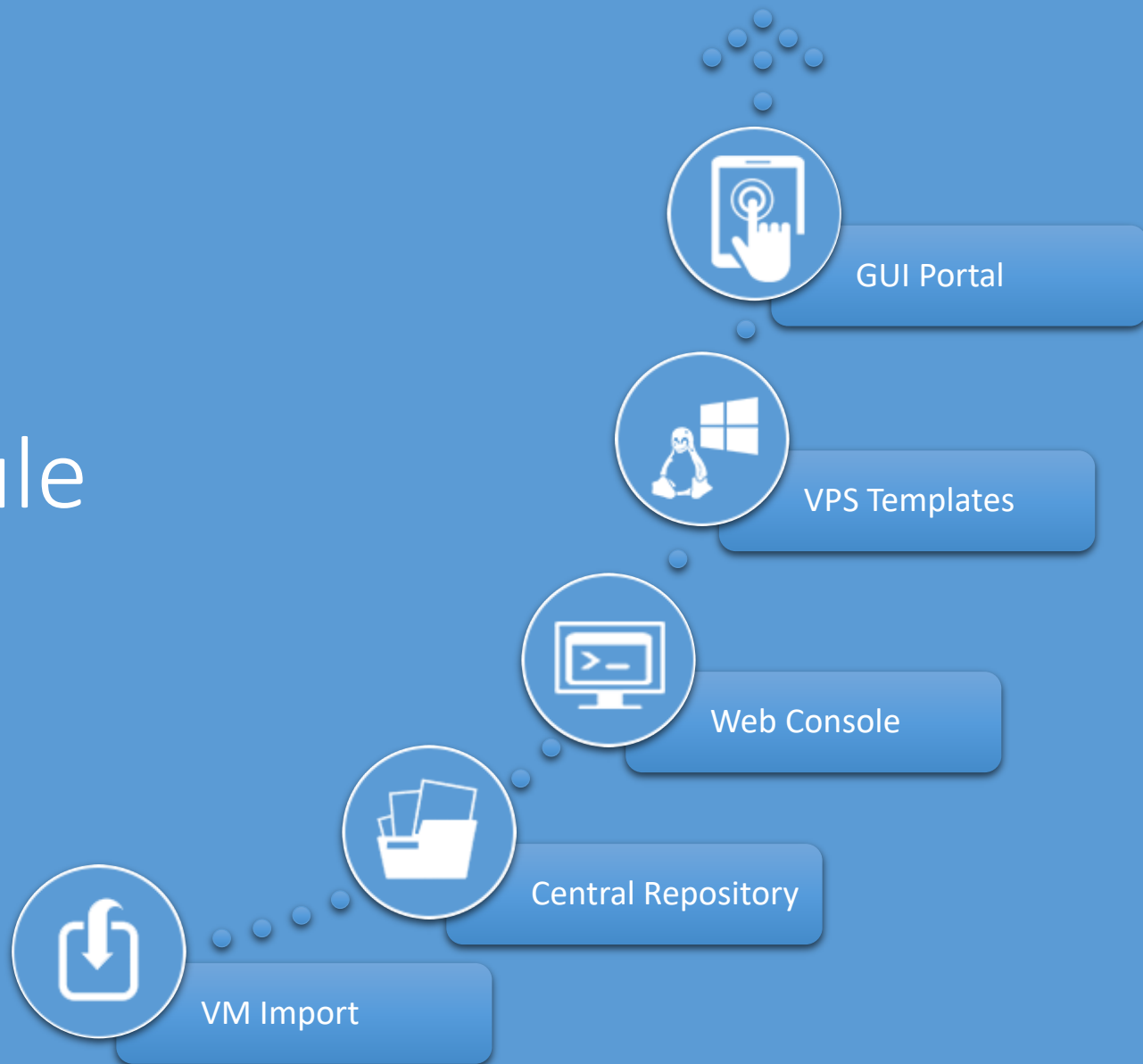
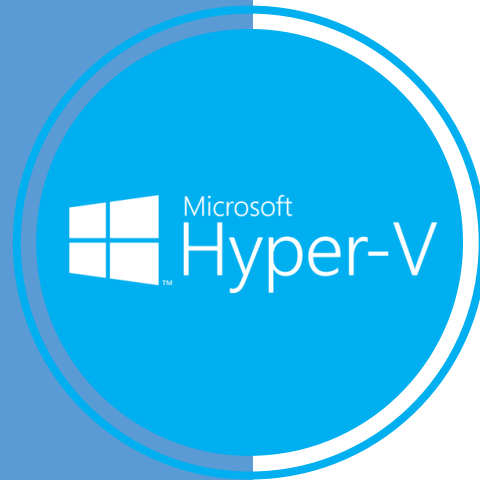




HC Hyper-V Module



Hyper-V is Microsoft's native hypervisor and utilizes Windows as its underlying operating system. It allows the creation of virtual machines (VMs) on Windows servers, enabling each virtual machine to run in its own isolated space. Hyper-V is simply a more efficient way to use hardware than just running one operating system on physical hardware.



HC Hyper-V module is an additional layer above the hypervisor, facilitating easy creation and management of virtual machines through a web based UI. It strengthens the overall functionality of Hyper-V by furnishing a web platform to VPS providers and datacenters, allowing them a firm grip over various configurations of CPU, memory, storage and networking.

HC Hyper-V Module Key Features



Self-Served GUI Portal for Management



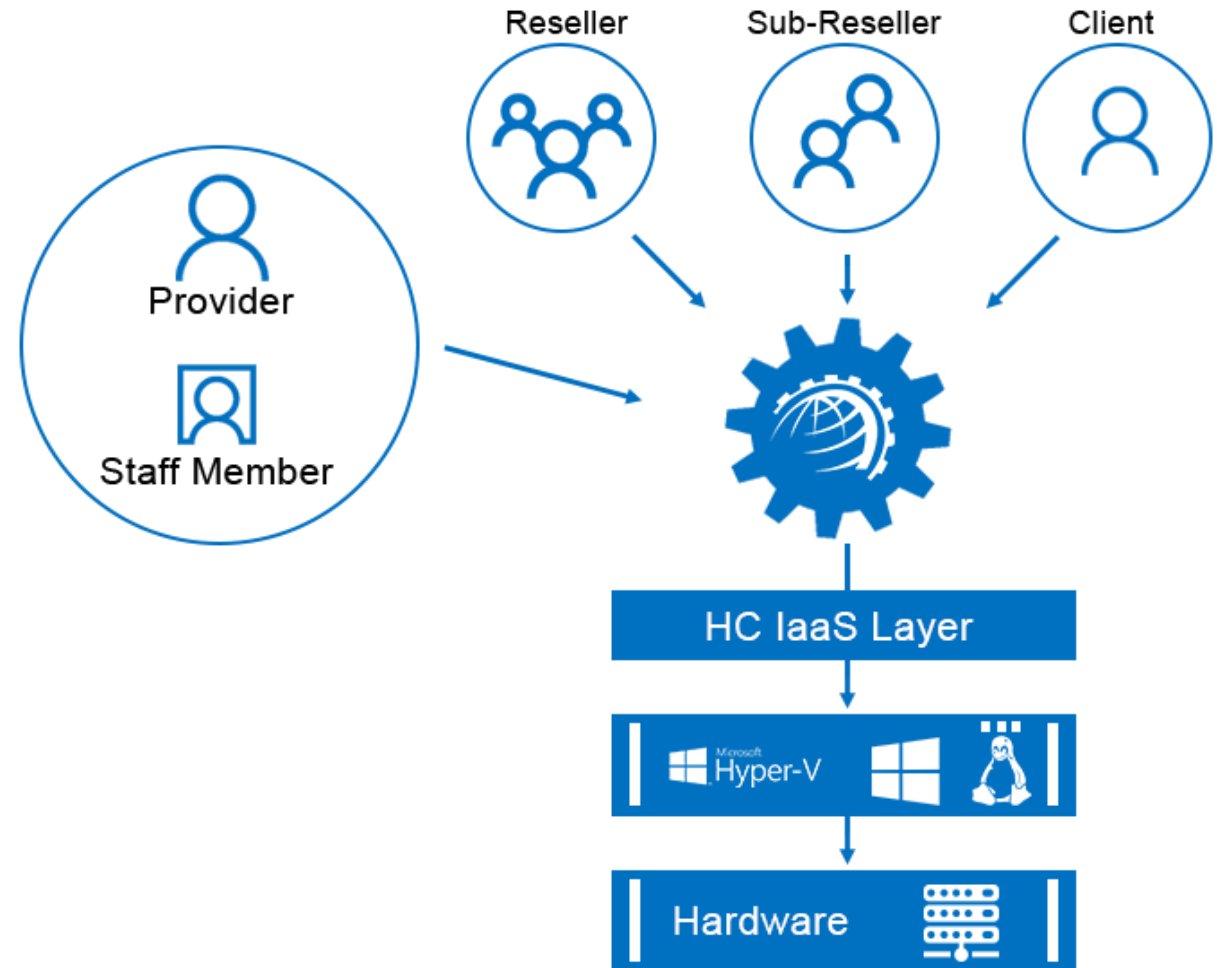
Preconfigured OS Templates



Various Configurations of CPU, Memory, Storage and Networking



Web Console for Hyper-V



What You Control

Provisioning
Virtual Machines
Dashboard

Virtual Machine Dashboard

27feb
root | Change Password

Start | Pause | Shutdown | Reboot | Take Snapshot

status	owner	cpu cores	ram size	vhd size	public ip address	private ip address
Running	hcadmin	2 Cores	300 MB	6 GB	58.65.163.125 Click to Change	No IP assigned

Thumbnail

Virtual Machine Details

General Properties
VLANs
Snapshots
Public IP Addresses
Private IP Addresses

OS Template
CentOs7

Select Offering
I'll choose my own offering

CPU Cores
2

RAM Size (MB)
300

VHD Size (GB)
6

Dynamic Memory Settings

Enable Dynamic Memory
☒ Yes

Startup RAM (MB)
512

Minimum RAM (MB)
512

Startup RAM and *Minimum RAM* must be a multiple of two, and both must be less than the *RAM Size*.

Save

- Service Provider Features

Hyper-V hosts	Add, Edit, Delete and Check Health of Hyper-V hosts.
Base OS Management	Choose from a wide range of Windows/Linux base OS types. Edit, Disable, Make a copy of base OS types.
Repository Management	Maintain virtual hard disks (.vhdx) files on a separate central location and fetch these files from the central repository.
OS Templates	Add, Edit, Delete and Inspect Disks of VPS templates.
Public IP Addresses	Add and Delete range of logical public IP addresses to and from the Hyper-V host.
Private IP Addresses	Add and Delete range of logical private IP addresses to and from the Hyper-V host.
VLAN Management	Add VLANs existing at the backend to the panel. Assign the same VLANs to control panel users.
Web Console	Specify web console settings for Hyper-V and allow customers to access their VMs through a browser.
Plan Management	Add, Sell, Edit and Delete service plans and composite resources with IaaS (virtualization) resources.

- Service Provider Features

Bandwidth Metering	Enable bandwidth metering for each VM via a 3 rd party tool.
Reporting	View and Download usage reports for the number of virtual machines and their allocated & consumed CPU/memory/storage.
Network Information	Indicate settings for internal and external switches.
Data Storage Folder	Specify the storage location of virtual machines.
VM Import	Import existing virtual machines.
VM Transfer	Move virtual machines between control panel users.
Summary Email Management	Send out summary emails for creation, transfer and import of virtual machines.
DVD Drive	Allow DVD drive in media on virtual machines.
API Availability	Integrate with external applications and interfaces through a firm API.

- End User Features

VM Creation	Create a virtual machine.
VM Deletion	Delete a virtual machine.
VM Search	Search virtual machine by name.
VM Listing	View list of virtual machines.
VM Details	View virtual machine CPU/memory/storage size.
Change Details	Change virtual machine CPU/memory/storage size.
VM State	Start, Pause, Refresh, Shut down and Reboot virtual machine.
Change Password	Change virtual machine administrator password.
Dynamic Memory Settings	Enable dynamic memory and specify startup RAM and minimum RAM.

- End User Features

VLAN Assignment

Assign VLAN to virtual machines.

Snapshots

Take virtual machine snapshot and view its date taken. Apply and remove snapshot.

Thumbnail

View current state of virtual machine.

Public IP Assignment

Assign and Delete public IP addresses to and from the virtual machine.

Private IP Assignment

Assign and Delete private IP addresses to and from the virtual machine.

System Requirements

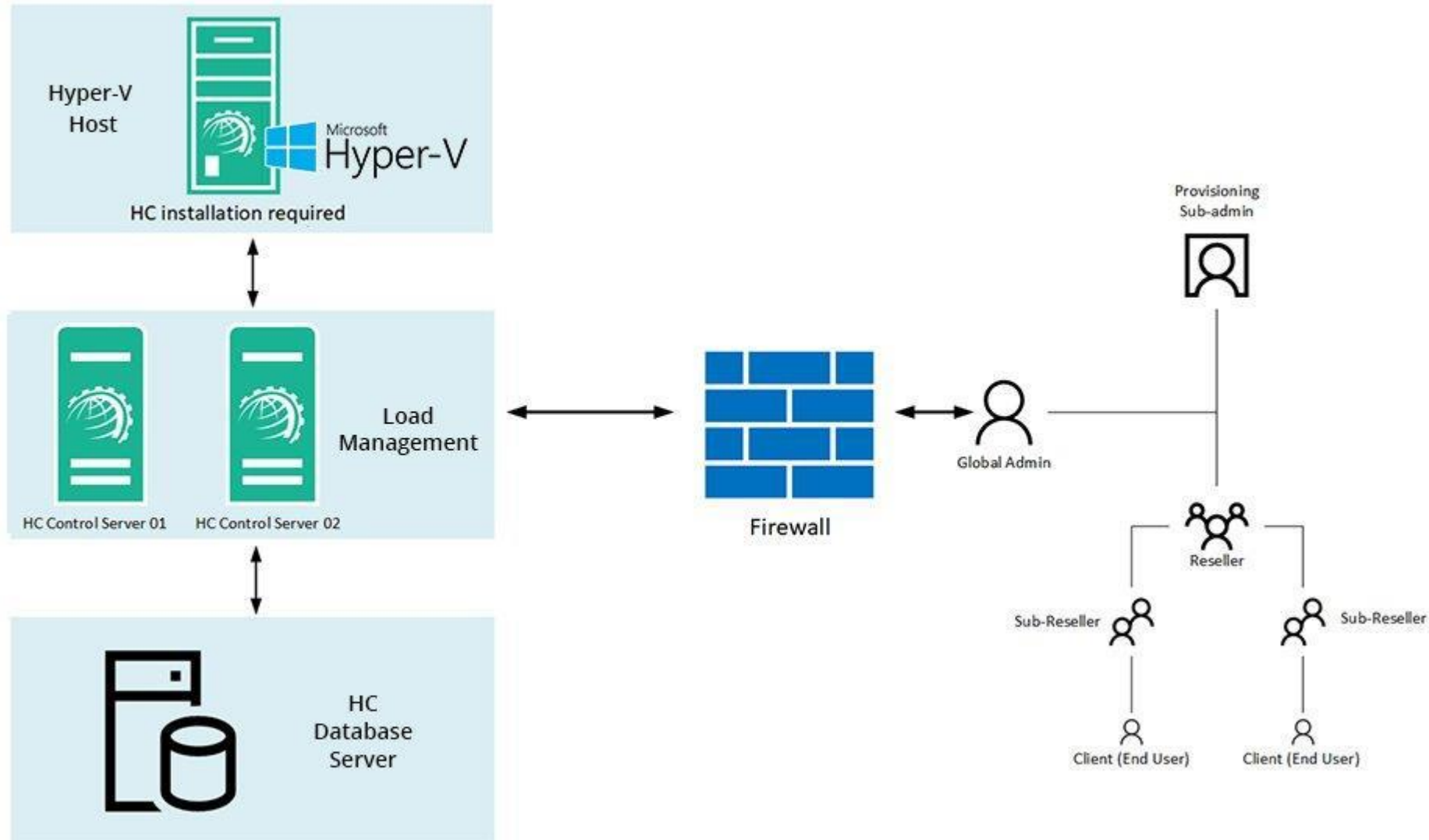
Software

- Windows Server 2008/2012/2016 and 2012 R2 Standard x64 Edition or above with Hyper-V role. Hyper-V Server 2008 is also supported. We recommend Windows Server 2008/2012 and 2012 R2 Datacenter Edition which allows unlimited number of virtual machines without additional licensing. You may lease Windows Server 2008/2012 and 2012 R2 Datacenter Edition with Hyper-V from your data center or dedicated server providers.
- It is recommended to have a clean install of x64 edition of Windows Server 2008/2012 and 2012 R2 to be able to use the Hyper-V technology.
- HC10 Windows License
- HC Virtualization Module License

Hardware

- 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.

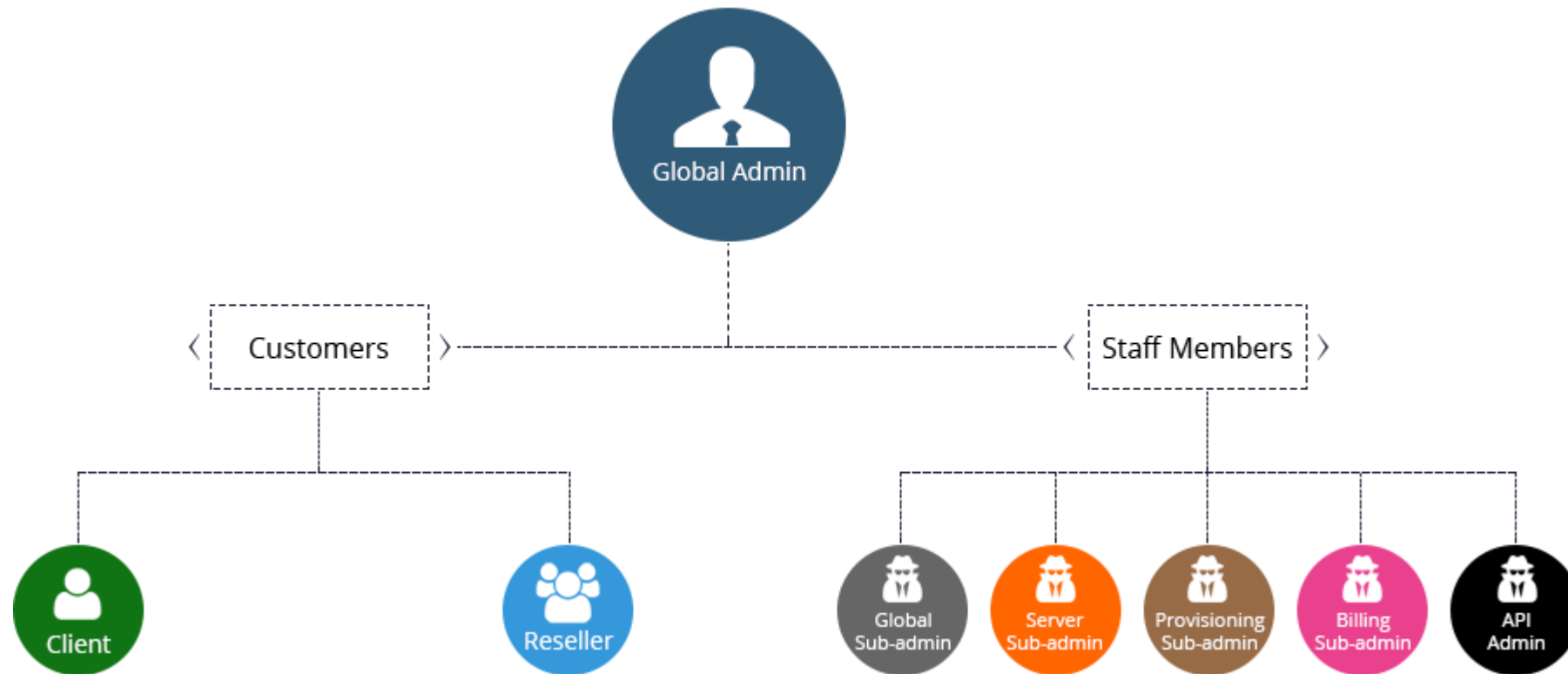
The Environment



Installing Hosting Controller

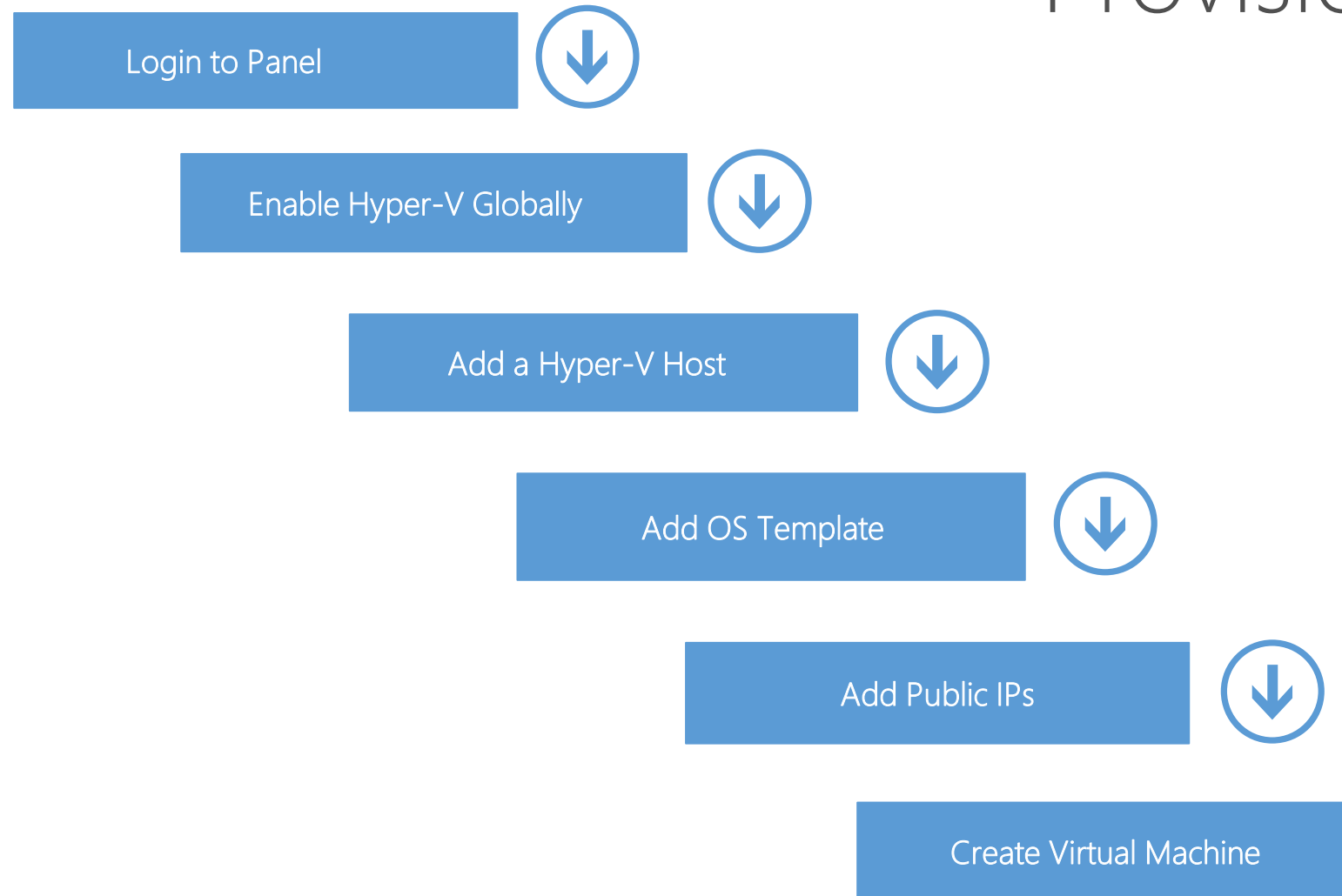
The installation of HC itself is fairly simple. Just download [HC installer](#) and apply it on the Hyper-V host. Follow a step by step wizard to complete the procedure. To view the installation procedure in detail, see [HC10 Installation Guide](#).

HC User Structure

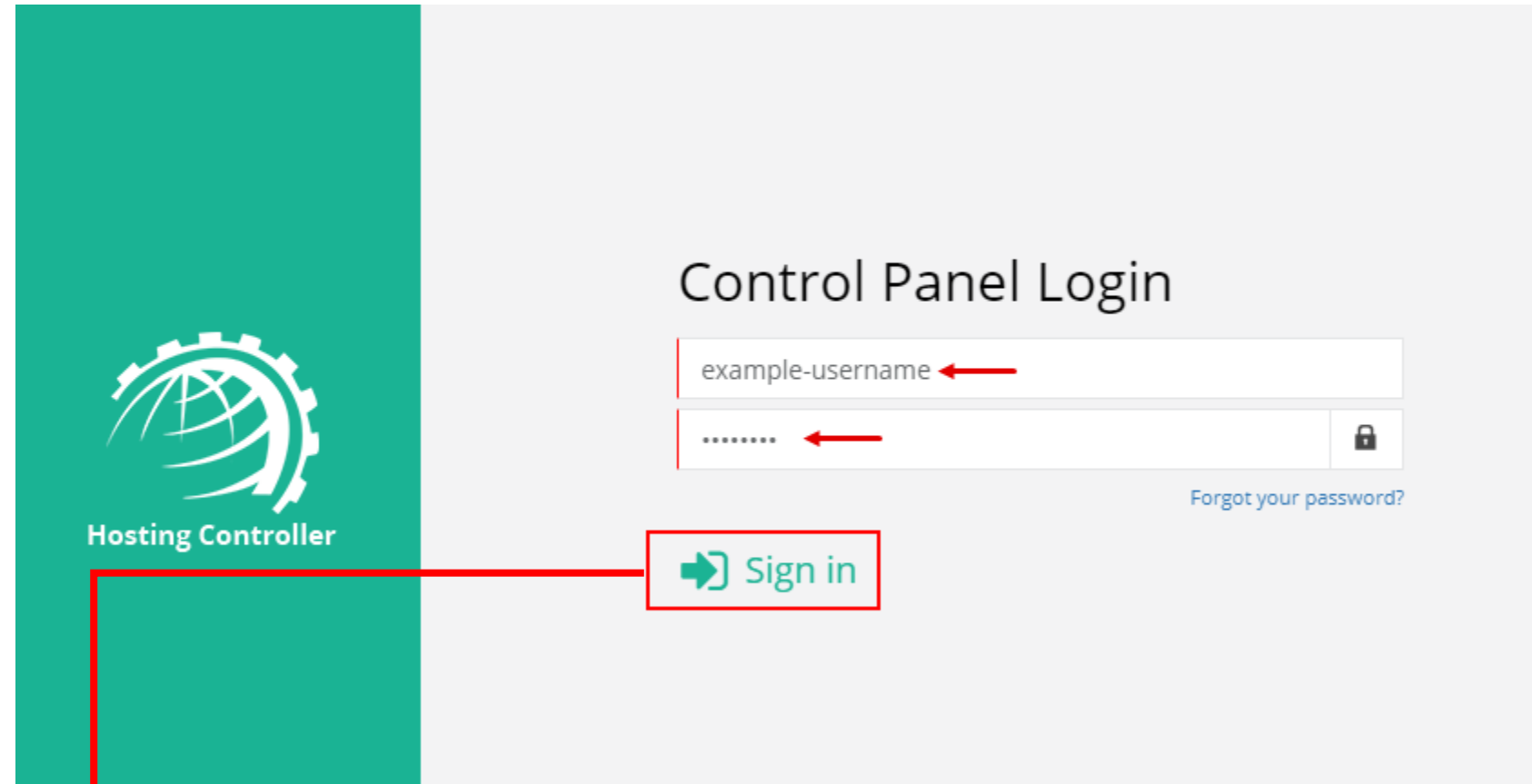


Provisioning Virtual Machines

Provisioning Process



Open Control Panel
Login screen



Control Panel Login

example-username

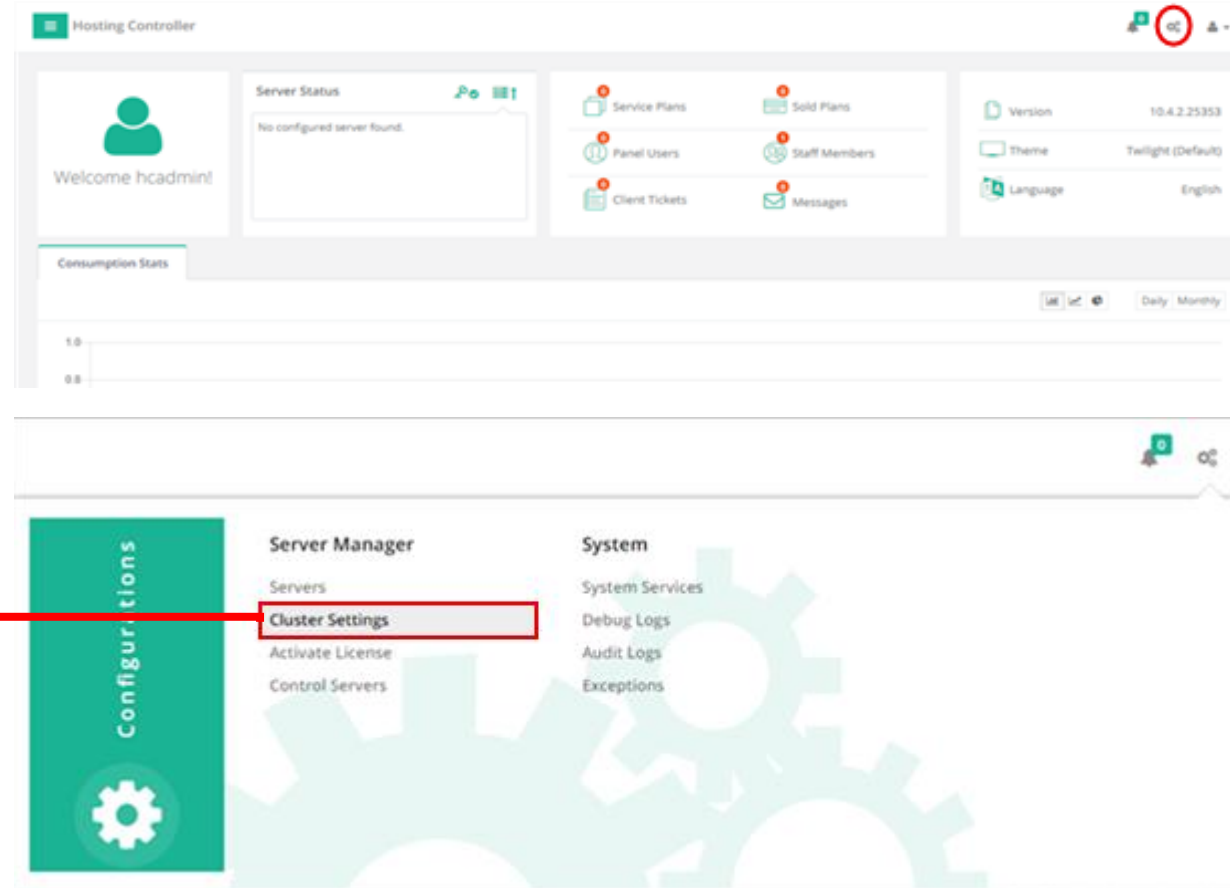
.....

[Forgot your password?](#)

 Sign in

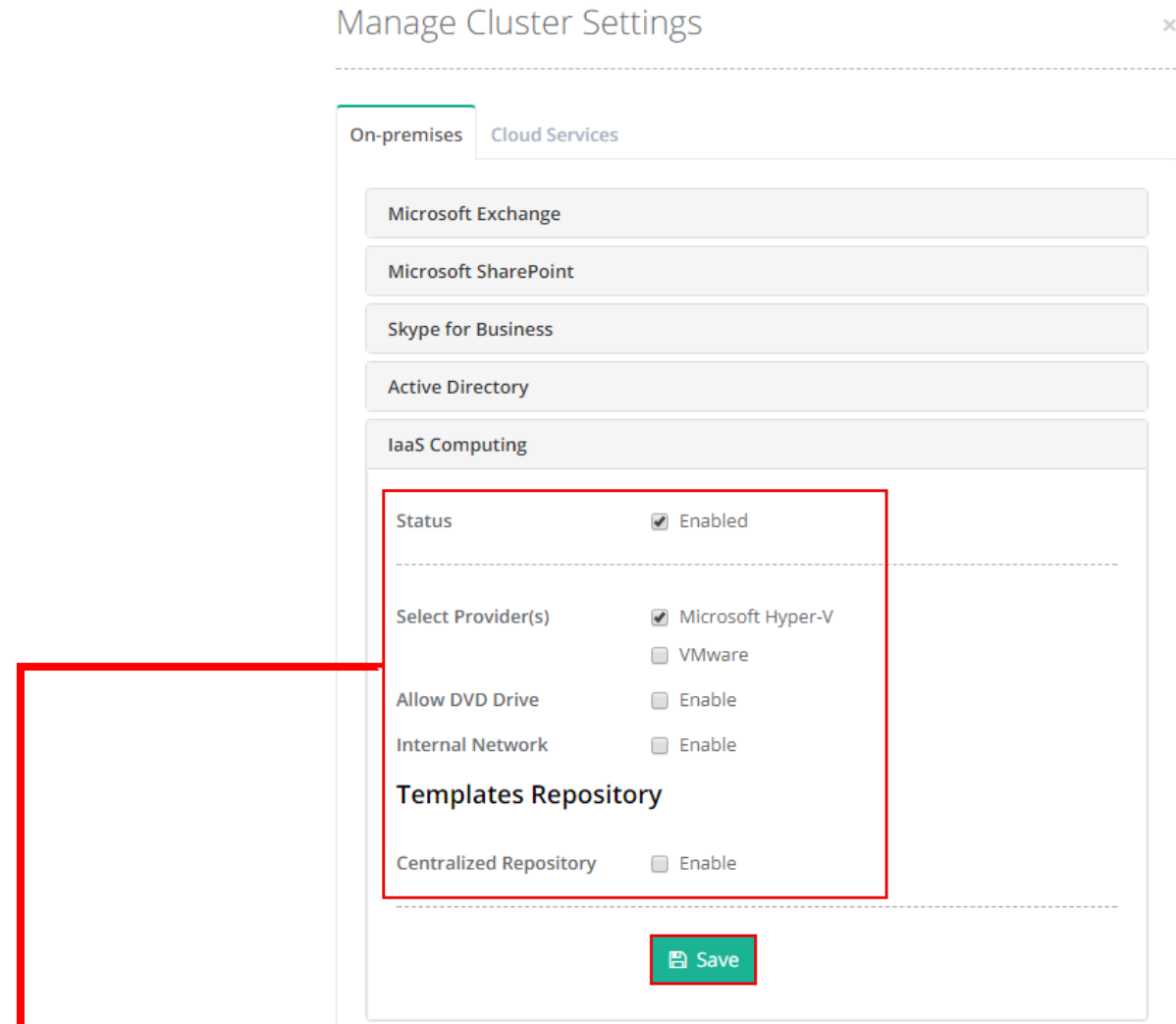
Go to <http://YourIP:8797> to log on to HC10 control panel. Specify user credentials and click **Sign in** to proceed.

Go to Configuration screen



Go to Cluster Settings to enable Hyper-V and select Provider(s).

Enable **Hyper-V** globally
from **Manage Cluster
Settings** page



Manage Cluster Settings

On-premises Cloud Services

Microsoft Exchange

Microsoft SharePoint

Skype for Business

Active Directory

IaaS Computing

Status ☒ Enabled

Select Provider(s) ☒ Microsoft Hyper-V ☐ VMware

Allow DVD Drive ☐ Enable

Internal Network ☐ Enable

Templates Repository

Centralized Repository ☐ Enable

Save

Go to Cluster Settings >> IaaS Computing to enable Hyper-V and select Provider(s) .

From **Manage Servers** page click **Add Server**

Add Server (On-premises Windows)

General Information

Server's Friendly Name

Hyper-V Host

IP Address

192.168.0.115

Admin User

administrator

Password

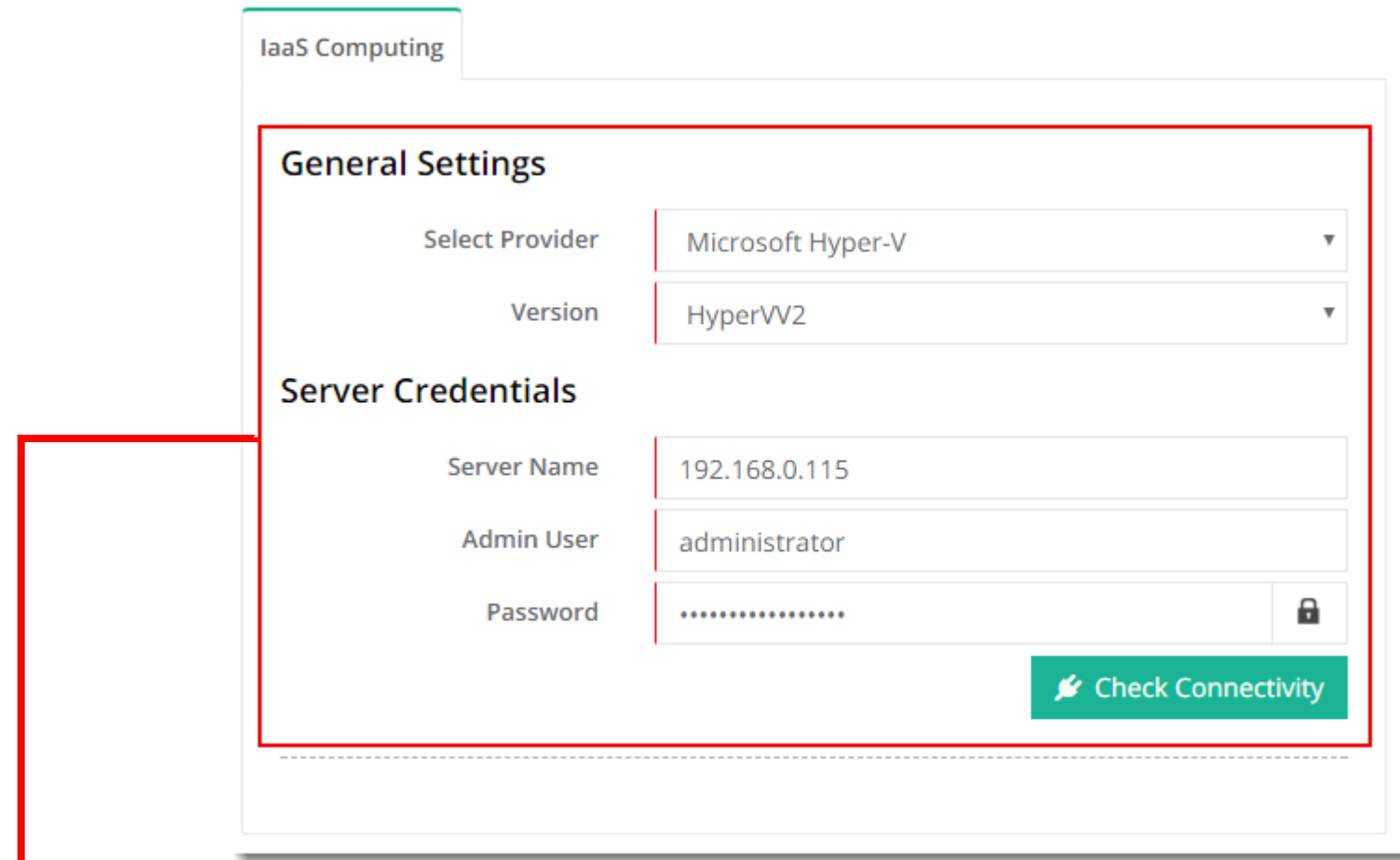
.....



 Check Connectivity

Go to **Manage Servers** >> **Add Server** page to add Hyper-V server. Fill out the **IP**, **Admin User** and **Password** for the Hyper-V Host. Check **Connectivity** to proceed.

Continue to configure the server



The screenshot shows a configuration window titled 'IaaS Computing'. It contains two main sections: 'General Settings' and 'Server Credentials'. The 'General Settings' section has two dropdown menus: 'Select Provider' set to 'Microsoft Hyper-V' and 'Version' set to 'HyperVV2'. The 'Server Credentials' section has three input fields: 'Server Name' with the value '192.168.0.115', 'Admin User' with the value 'administrator', and 'Password' with masked characters. A green button labeled 'Check Connectivity' is located at the bottom right of the 'Server Credentials' section. A red box highlights the entire configuration area, and a red arrow points from the text below to the 'General Settings' section.

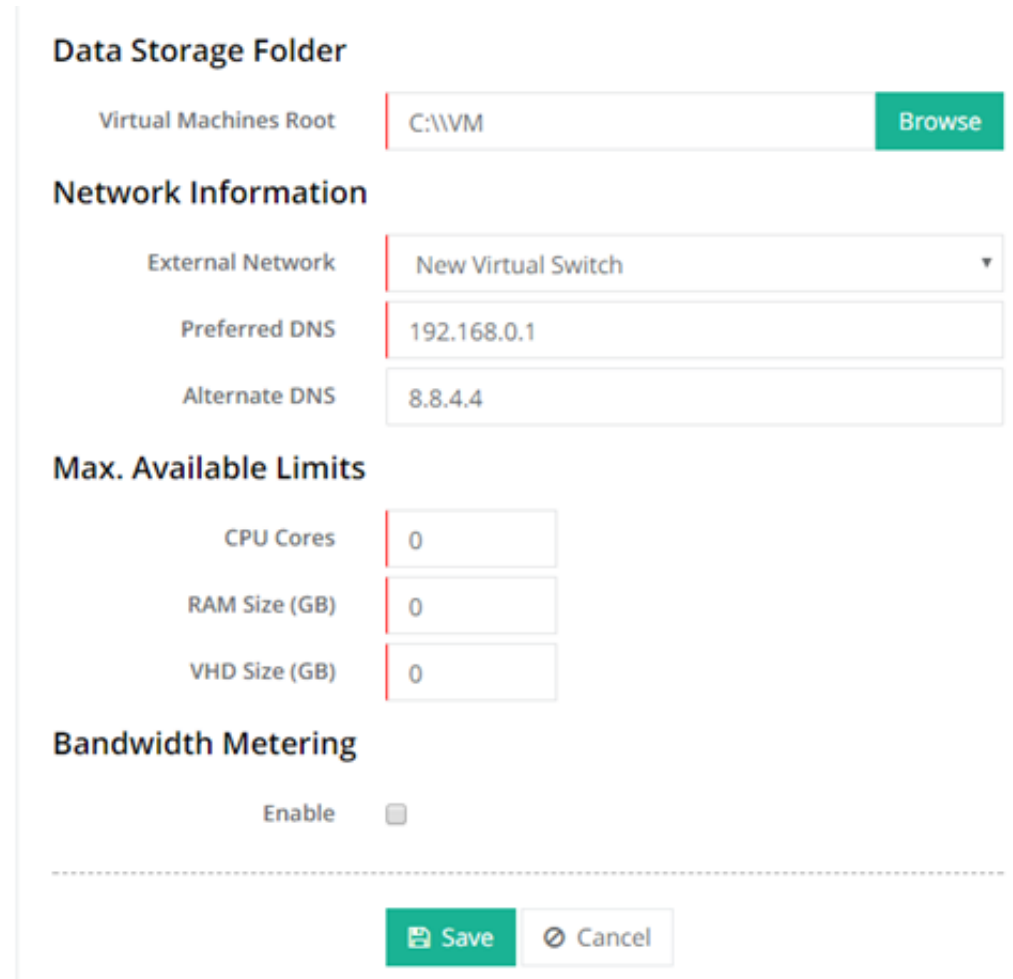
General Settings	
Select Provider	Microsoft Hyper-V
Version	HyperVV2

Server Credentials	
Server Name	192.168.0.115
Admin User	administrator
Password	

Check Connectivity

Specify **General Settings** to continue configuring. Fill out the **Server Name**, **Admin User** and **Password** option. Check **connectivity** to proceed.

Provide rest of the details to add a Hyper-V Host



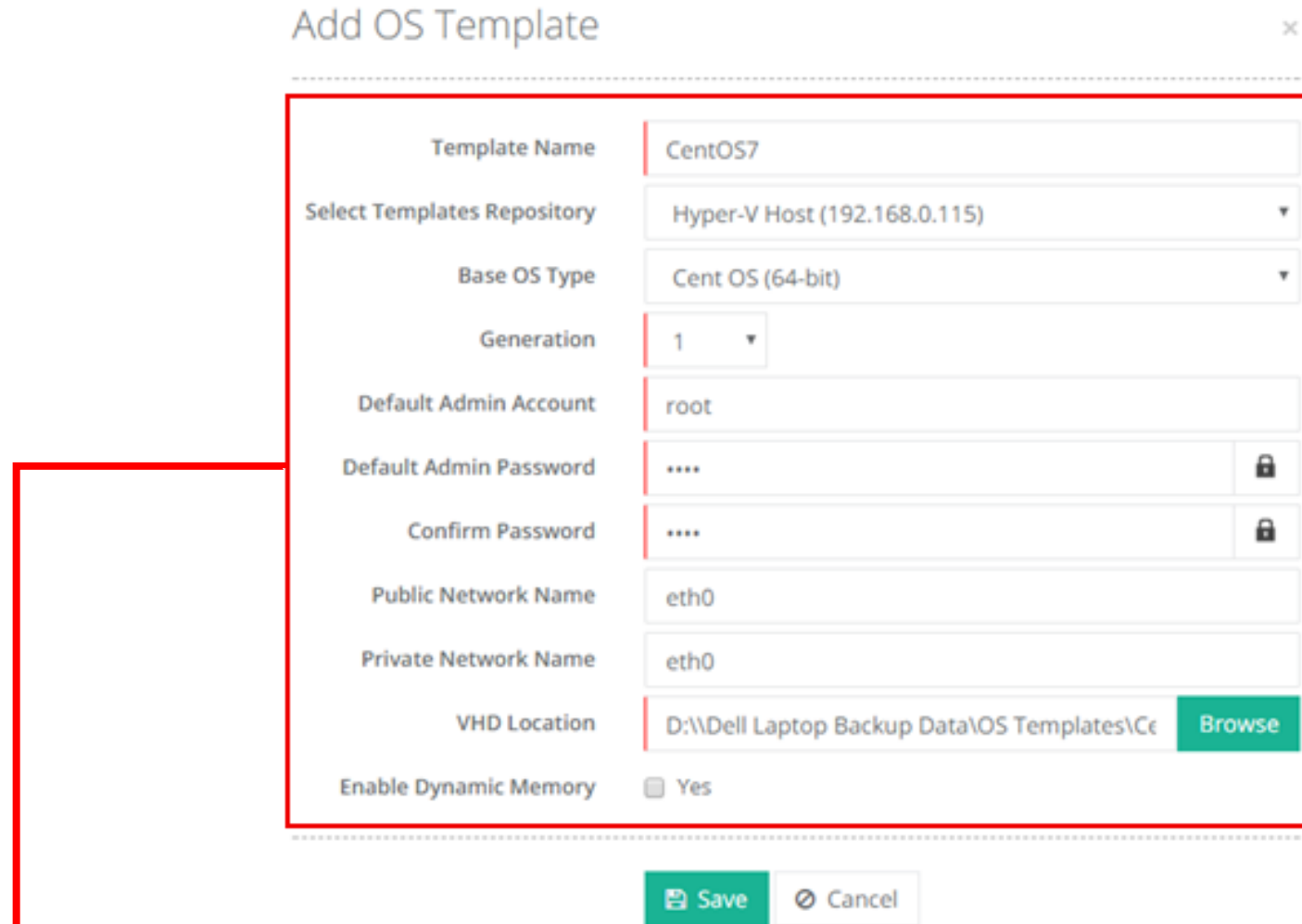
The screenshot shows a configuration window for a Hyper-V host. It contains the following sections and fields:

- Data Storage Folder**:
 - Virtual Machines Root: C:\VM (with a Browse button)
- Network Information**:
 - External Network: New Virtual Switch (dropdown menu)
 - Preferred DNS: 192.168.0.1
 - Alternate DNS: 8.8.4.4
- Max. Available Limits**:
 - CPU Cores: 0
 - RAM Size (GB): 0
 - VHD Size (GB): 0
- Bandwidth Metering**:
 - Enable: ☐

At the bottom, there are Save and Cancel buttons.

Provide rest of the details such as **Data Storage**, **Network Information**, **CPU**, **RAM** and **VHD Size** for virtual machines. Click **Save** to add Hyper-V Host.

From **OS Templates** page click **Add OS Template** to add an OS template



The screenshot shows a web-based 'Add OS Template' dialog box. A red rectangular box highlights the form fields, and a red arrow points from the bottom of this box towards the instructions below.

Add OS Template	
Template Name	CentOS7
Select Templates Repository	Hyper-V Host (192.168.0.115) ▼
Base OS Type	Cent OS (64-bit) ▼
Generation	1 ▼
Default Admin Account	root
Default Admin Password	**** 🔒
Confirm Password	**** 🔒
Public Network Name	eth0
Private Network Name	eth0
VHD Location	D:\Dell Laptop Backup Data\OS Templates\Cc Browse
Enable Dynamic Memory	☐ Yes

Save Cancel

Go to **Virtual Module Conf. >> OS Templates** page to add an OS template. Click **Add OS Template** and fill out all the details. Click **Save** to add a template.

OS Template added and
success message displayed

Add OS Template

Success: OS template added successfully.

OS Templates

Virt. Module Conf. / OS Templates

Search OS Template by Name

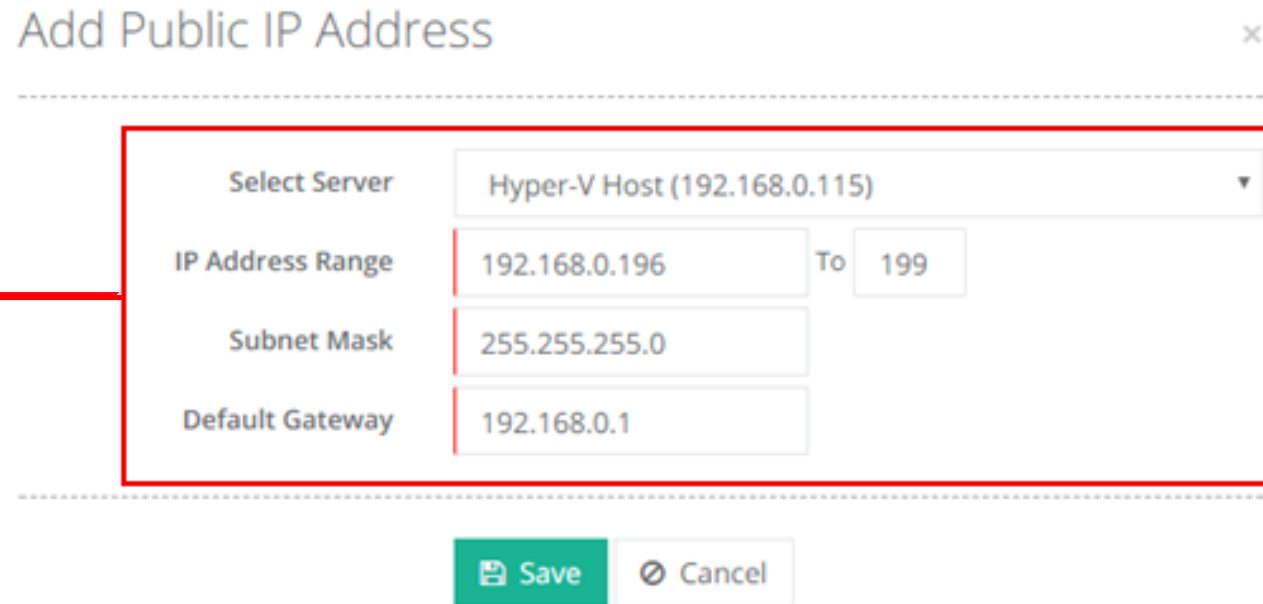
+ Add OS Template

Showing 1 to 1 of 1 Show 20 Records

Template Name	Base OS Type	Template Repository	Usage Count	Actions
CentOS7	Cent OS (64-bit)	Hyper-V Host (192.168.0.115)	0	Edit Inspect Disk

OS Template added successfully.

From **IP Manager** page click **Add Public IP Address** to add a range of public IPs



Add Public IP Address

Select Server: Hyper-V Host (192.168.0.115)

IP Address Range: 192.168.0.196 To 199

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.0.1

Save Cancel

Go to **Virtual Module Conf. >> Public IP Addresses** page to specify a range of public IPs. Click **Add Public IP Address** and specify the **IP Address Range**, **Subnet Mask** and **Default Gateway**. Click **Save** to add the IPs.

IP addresses added and
success message displayed

Add Public IP Address

Success: IP address added successfully.

IP Manager (Public IP Address)

Virt. Module Conf. / Public IP Addresses

Search IP Addresses

+ Add Public IP Address

Showing 1 to 4 of 4

Show 20 Records

IP Address	Subnet Mask	Gateway	Server	Status	Actions
192.168.0.196	255.255.255.0	192.168.0.1	Hyper-V Host (192.168.0.115)	Free	Delete
192.168.0.197	255.255.255.0	192.168.0.1	Hyper-V Host (192.168.0.115)	Free	Delete
192.168.0.198	255.255.255.0	192.168.0.1	Hyper-V Host (192.168.0.115)	Free	Delete
192.168.0.199	255.255.255.0	192.168.0.1	Hyper-V Host (192.168.0.115)	Free	Delete

IP addresses added successfully.

From **Virtual Machines** page click **Create Virtual Machine** to add a virtual machine

Create Virtual Machine

Virtual Machine Configurations

Owner ☒ Create Virtual Machine for myself

Base OS Type

Select Provider

Select Virtualization Server

Select Offering

CPU Cores

RAM Size (MB)

VHD Size (GB)

Assign Public IP Address ☒ Yes

Virtual Machine Details

Virtual Machine Name

Description

Admin Account

Password

Confirm Password

Go to Provisioning >> Virtual Machines page to create a virtual machine. Click **Create Virtual Machine** and specify various configurations such as **Base OS Type**, CPU, RAM, VHD etc. Click **Create Virtual Machine**.

Virtual machine added and success message displayed

Virtual Machine Summary ×

Success: Virtual machine creation process started successfully with the following details. ×

Manage Virtual Machines

Provisioning / Virtual Machines

Search Virtual Machine by Name

+ Create Virtual Machine

Showing 1 to 1 of 1

Show 20 Records

Machine Name	Owner	Provider	Size	Last Known State	Server Name	Actions
Client CentOS 	hcadmin		Cores:1, RAM:512MB, VHD:5GB	 Running	Hyper-V Host (192.168.0.115)	Dashboard Delete

Virtual machine created successfully.

Contact Hosting Controller

Suite 401, 50 Burnhamthorpe Road W.
Mississauga, ON, L5B 3C2 Canada



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