

# ProHVM (Probus-IT Hyper-V Manager)

HVM will help you to manage Hyper-V Servers and virtual machines. It is especially useful on core installations where you cannot run Microsoft Hyper-V manager locally. It is also possible to manage many versions of hyper-V from a single console (2008 R2 to 2012 R2). You can run it on Servers, desktops and Core installations both 32 and 64-Bit.


Related:

[cVM- Connect VM](#)

## Installation

Download HVM from [here](#) and run the setup. If its a fresh install, It is also recommended to enable remote management and reboot the host.

Start ProHVM by typing "hvm" in a Command prompt or by clicking the icon in the start menu.

 When managing a server remotely enable remote management and open WMI traffic in the firewall on server and client!

## Licensing

ProHVM is licensed per managed host. so if you manage one host using two clients it is one license but if you manage two hosts you will need two licenses.

## Versions

	Standard (free)	Professional
Create and Manage VM	YES	YES
VM Console Access (also on free Microsoft Hyper-V Server)	YES	YES
Connect to Hyper-V Servers cross domains and workgroups	YES	YES
Monitor VM CPU, Memory etc.	YES	YES
Monitor Host CPU, memory, disks and event log.	YES	YES
Import of VM's	NO	YES
Export of VM's	NO	YES
Storage migration	NO	YES
Cluster support, includes live and quick migrations.	NO	YES
Hyper-V Share nothing migration support	NO	YES
Hyper-V Replica Support	NO	YES

## Free version

You can now also use the standard version for commercial purposes!

## Request trial

(From version 2.4 and up)

To test the paid versions you can request a trial serial that will unlock all features.

⚠ To get a trial license you will need a valid e-mail address and a internet connection! If you do not have a internet connection on the computer where ProHVM is installed. You will get an URL in the "request trial" dialog that can be pasted into a browser on another computer with internet access.

1. Open ProHVM.
2. Click on the "Request trial Serial" menu item under "main menu">"Application"
3. Enter a **Valid** e-mail address (the serial will be sent there), your name and you company name.
4. Check your inbox for a mail containing you serial.  
If you do not receive any email within an hour (usually minutes), Check your spam filter and spam inbox.

## Apply Serial

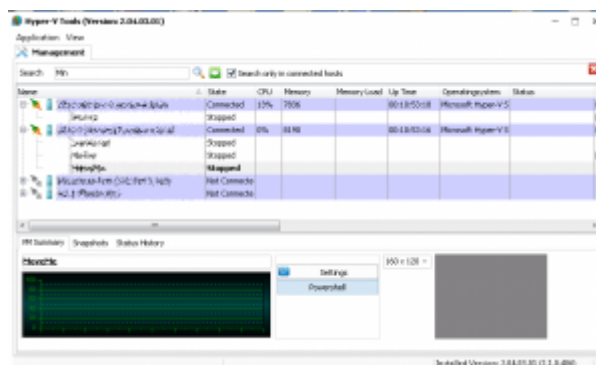
To apply a serial to a host:

1. Select and expand (connect) to the host
2. Right click on the server and select "Settings" in the pop up menu.
3. Click the "Change serial" button in the Server tab of the Settings dialog.
4. Paste or enter your serial and click "OK"
5. Check the field "License type" to validate that the license has been saved.

⚠ if you have purchased more than one license or if you want to use your trial on more than one host you can apply the same serial on many hosts.  
However you are not allowed to apply the same serial on more hosts than the amount of licenses you have purchased!

## User interface

### Main Window



HVM is designed to display as much information as possible in one main window. From here you will also be able to do most of the “day to day” work managing your Hyper-V servers and virtual machines. The main window is split in two main areas:

- The top area or *Server tree* displays a list of servers and when expanded (connected) the virtual machines will be listed.
- The bottom area or *Details panel* displays information about the server or virtual machine selected.

When right clicking on a server or Virtual machine a popup menu displays actions that can be performed on se selected item.

## Managing Servers

### Connecting to local server

When you start HVM it checks to see if Hyper-V is installed on the local computer. If it is the local computer is automatically added to the Server tree. It will have “[localhost]” added to its name.

### Connecting to remote server

With HVM you can manage remote Hyper-V Servers. To add a remote server right click the server tree and click on the “Add Server” menu command.

Specify the following data in the “Add server” box:

**Description:** A name to help you identify the server.

**Name or IP:** Here you input the server name or IP-Address (192.168.1.13, hv01, hv01.domain.local)...

**Username:** Specify a user with the appropriate permissions on the server (Administrator, computername\Administrator, Domain\Administrator)

**Password:** The password for the user entered in the username field.

Click "OK" to finish adding the server. The server is now added to the Server Tree. To connect to the server, expand the server node.

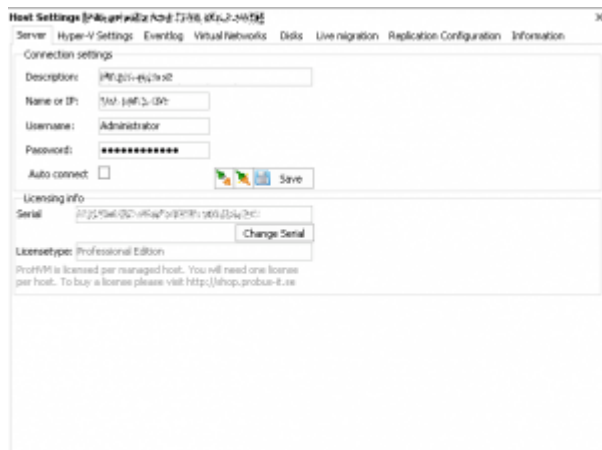
## Server Info Tab

When selecting a server in the Tree, CPU and memory information about that server will show in the Details panel. From here you can also open the Server settings dialog, execute remote Powershell and browse the disks of the server.

## Server Settings Dialog

After selecting a server you can access it's settings by right clicking it and selecting the "Settings" menu item or by clicking the Settings button in the Server info Tab.

### Server Tab.



In the first tab you can change connection settings for the server and view Licensing information.

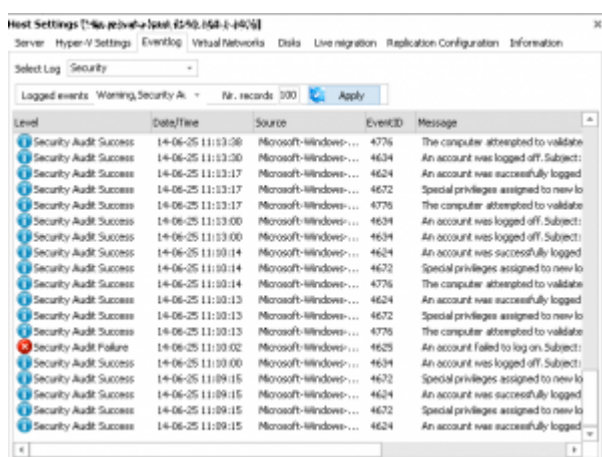
Here you can also change the serial for the host. ProHVM is licensed per host. So if you have a license for one server, any number of clients can be used to manage it without the need of additional licenses. On the other hand if you manage two hosts with one client you will need two licenses, one for every managed host.

### Hyper-V Settings Tab.



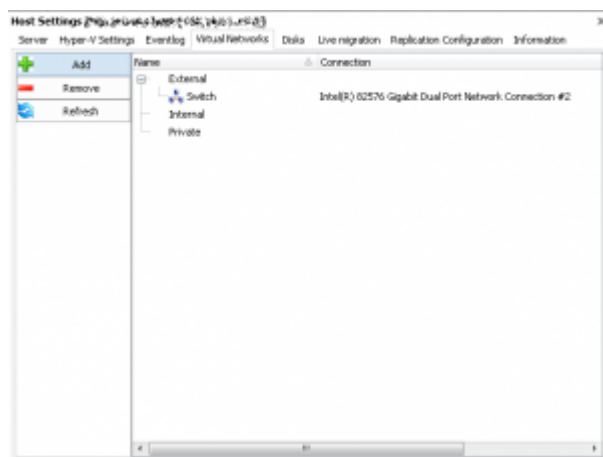
In the Hyper-V Settings tab you can change the default paths where Hyper-V Stores Virtual Machines and VHD-Files

## Eventlog Tab.



From the “Eventlog” Tab you can examine the event log of the remote server. To view a log file select it in the dropdown box. To view the details of a event log record double click the record in the list. To filter the result change event types to display in the “Logged Events”, The update frequency in “Refresh int.” (refresh interval), and how many records to fetch in “Nr. records”. And click on “Apply”...

## Virtual Networks Tab.



In the Server virtual Networks Tab you can View, Add and delete virtual switches on the server. The virtual switches is displayed in three categories:

#### External:

Virtual machine to virtual machine on the same physical server, Virtual machine to parent partition (and visa-versa), Virtual machine to externally located servers (and visa-versa)

#### Internal:

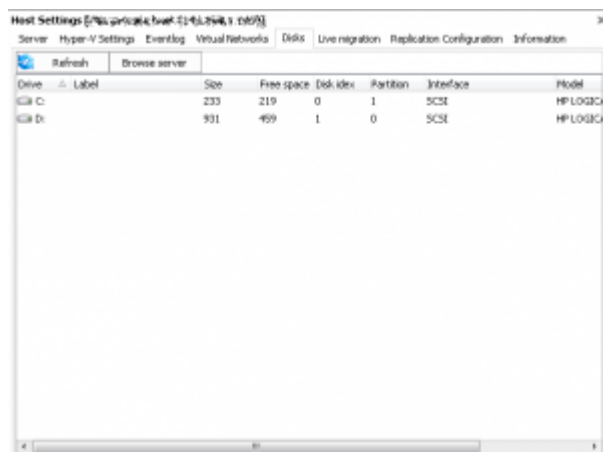
Virtual machine to virtual machine on the same physical server, Virtual machine to parent partition (and visa-versa)

#### Private:

Virtual machine to virtual machine on the same physical server.

To add a switch right click the tree and select “Add”. Select the type and a physical adapter to connect to the switch (External only).

## Disks Tab.



The Disks Tab displays information of disks present on the server. There is also a “browse button you can use to browse the local disks on the server (even remotly). From the browser it is also possible to copy, Paste, delete and rename files.

## Live migration Tab.

The screenshot shows the 'Live migration' tab in the 'Host Settings' window. The window title is 'Host Settings [Server: probus-it.se:10000]'. The tabs are: Server, Hyper-V Settings, Eventlog, Virtual Networks, Disks, Live migration, Replication Configuration, and Information. The 'Live migration' tab is active. It contains the following settings:

- ☒ Enable incoming and outgoing live migrations
- Authentication protocol**
  - ☒ Use Credential Security Support Provider (CredSSP). You must log on to the server to perform a live migration.
  - ☐ Use Kerberos. This is more secure but requires Kerberos constrained delegation (KDC) for live migration.
- Simultaneous migrations**

Specify how many simultaneous migrations are allowed

Simultaneous live migrations:  Storage migrations:
- Incoming live migrations**
  - ☒ Use any available network for migration
  - ☐ Use these IP addresses for migration:
    - 192.168.1.0/24
    - 192.168.2.0/24

Buttons: Add, Edit, Up, Down, Remove

Save

In the Live migration Tab you can enable and disable Hyper-V Migration and change its settings.

## Replication Tab.

The screenshot shows the 'Replication' tab in the 'Host Settings' window. The window title is 'Host Settings [Server: probus-it.se:10000]'. The tabs are: Server, Hyper-V Settings, Eventlog, Virtual Networks, Disks, Live migration, Replication Configuration, and Information. The 'Replication Configuration' tab is active. It contains the following settings:

- ☒ Enable this computer as a replica server
- Authentications and ports**

Specify the authentication types to allow for incoming replication traffic. Ensure that the ports are open in the firewall

  - ☒ Use Kerberos (HTTP)

Data sent over the network will not be encrypted.

Specify the port:
  - ☐ Use Certificate-based Authentication (HTTPS)

Data sent over the network will be encrypted.

Specify the port:  Certificate thumbprint:
- Authorization and storage**

Specify the servers that are allowed to replicate virtual machines to this server

  - ☒ Allow replication from any authenticated server

Specify the default location to store replica files

D:\
  - ☐ Allow replication from the specified servers

Primary Server	Storage Location	Trust Group

Buttons: Add, Modify, Remove

Save

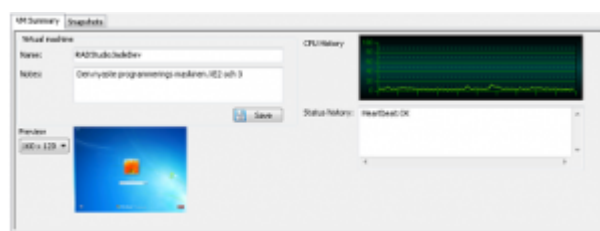
In the replication Settings tab you enable and disable Hyper-V Replica and change its settings for the server.

## Information Tab.



The information Tab displays general information about the server.

## Managing Virtual Machines

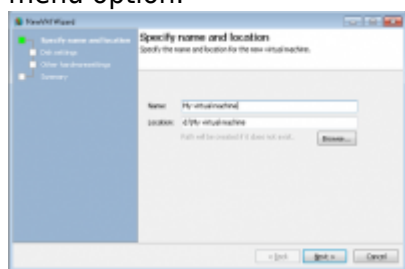


To view the virtual machines on a server expand the server node in the Server Tree. When a Virtual machine is selected information about that VM will show in the Details panel.

Here you can see a small preview of the VM Screen and a CPU-Graph. Also you can rename the VM and edit notes.

## Creating Virtual machines

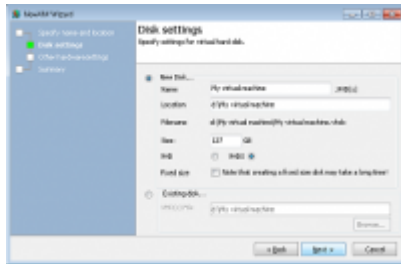
To create a virtual machine right click the server you want to create it on and click the “New VM” menu option.



The New VM Wizard opens.

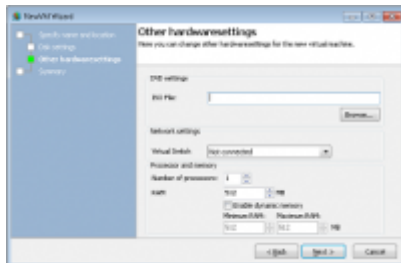
Specify the name and where to store the VM configuration. Click “Next”...



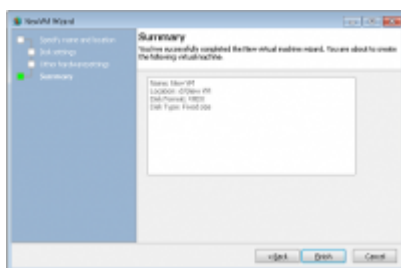


On page 2 in the wizard you select settings for the disk to be used by the new VM. You can choose to create a new disk or use an existing one. When creating a new disk there is a set of options like name, size, type and location. You can also choose to create a fixed size disk.

⚠ Be aware that creating a fixed disk can take a long time. The wizard cannot attach the disk while it is being created so you will have the option to wait or not to wait for the creation process to complete. *If you choose not to wait you have to attach the disk manually later.*



On page 3 of the wizard you specify some other hardware settings like ISO-file to attach to the DVD, A Switch to connect the networkcard, CPU and RAM settings..



The last page gives you a summary of the new VM to be created. Click “finish” to start creating the machine...

## Virtual Machine actions

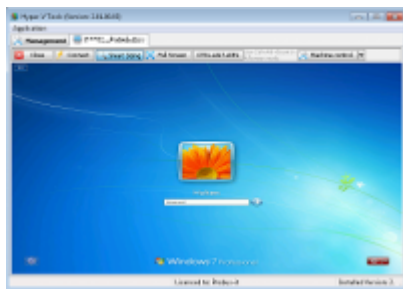


Right Clicking a machine in the “server tree” will show a popup menu with actions that can be performed on the VM.

- Start VM
- Shutdown OS - Shut down the OS off the VM (Requires Integration services to be installed).
- Power OFF VM
- Pause VM - Puts the VM in a Paused state The VM is no longer running but retains its memory.
- Suspend VM - Puts the VM in a “saved” state. The memory is returned to be used by other machines.
- Reset VM
- SnapShot - Takes a snapshot of the VM.

From here you can also attach ISO-Files and Connect the the VM.

## Connecting/Controlling a VM



To install operating systems or work with the VM you will sometimes need to connect to the “Console” session of the VM. You can do this with HVM by right clicking a VM and select “Connect” From the popup menu or by double clicking the VM. By holding down the SHIFT- Key you can also open the connection in [cVM](#).

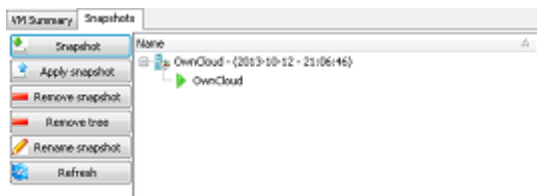
On the top of the “Control” window is a set of buttons.

- Close- Will close the connection and the window.
- Connect - Connects/reconnects to the VM
- Smart sizing - Toggles the smart sizing feature.
- Full Screen - brings the connection up to full screen.
- CTRL+AL+DEL - Sends the Ctrl-Alt-Delete key combination to the VM. You can change the local representation of this key combination from the “Select hotkey” dropdown. When you are connected in Full Screen, use the selected key combination to send CTRL+AL+DEL to the virtual machine.

## Snapshots

Virtual machine snapshots capture the state, data, and hardware configuration of a running virtual machine.

Snapshots provide a fast and easy way to revert the virtual machine to a previous state. For this reason, virtual machine snapshots are intended mainly for use in development and test environments. Having an easy way to revert a virtual machine can be very useful if you need to recreate a specific state or condition so that you can troubleshoot a problem ([http://technet.microsoft.com/sv-se/library/dd560637\(v=ws.10\).aspx](http://technet.microsoft.com/sv-se/library/dd560637(v=ws.10).aspx)).



To take a snapshot in HVM, right click the VM and then click the “Snapshot” menu item. Or Select the machine and go to the *Snapshot Tap* in the “Details panel” and then click the “Snapshot” button.

In the Snapshot tab you can create, Apply, remove and rename snapshots...

## VM Hardware settings



To add or change settings of VM-hardware. Right click the VM and click the “Settings”-Item in the menu. The VM Settings dialog shows...

In this dialog you can add, change and remove hardware of the VM. Hardware that can be managed include BIOS Settings, Memory, CPU count, Hard disks (VHD, VHDX), networkcards (including legacy) and more...

To add Hardware select the “Add hardware” item on the left and select what type of hardware to add.

To change existing hardware, select it in the list to the left and change the settings. Then click “apply”.

## Managing Clusters

From Version 2.04 ProHVM supports managing clustered VM's. Some of the operations that can be performed are:

- Quick migration
- Live migration
- Take resource on and offline.
- Add VM to Cluster.
- Remove VM From cluster.

From:

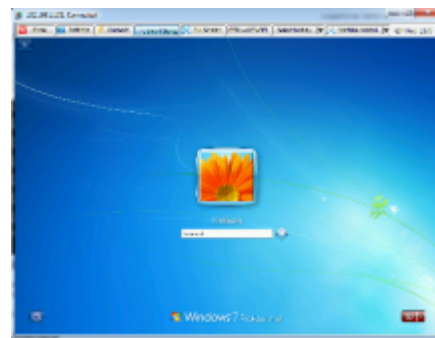
<http://www.probus-it.se/help/> - **Probus-IT Help**

Permanent link:

<http://www.probus-it.se/help/doku.php/hvm:hvm>

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## cVM- Connect VM

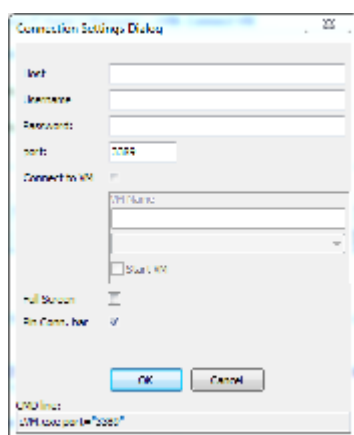
cVM is a separate application for connecting to virtual machines. cVM can be started using switches in a command prompt or from within [ProHVM](#). If you are using HVM on a Free Microsoft Hyper-V Server (Core) cVM will be the only means of connecting to virtual machines!

⚠ cVM does not support "Credentials pass through" so on a local server where you do not have credentials assigned to your registered server in [ProHVM](#), you will be asked to supply a username and password for the connection. You can however choose to store the credentials for all future connections to all VM's on the host by checking the "Save credentials" checkbox.

To start a connection using cVM from within [ProHVM](#), hold down the shift key and double click the VM or hold down the shift key and select "Connect" from the VM's right click menu.

To start a connection using the cVM GUI, type cVM in a command prompt. This will open the connect dialog.

Here you can set the parameters needed for the connection.



To start a RDP session to a remote computer, specify Host name or IP, user name, password and click on "OK".

To Connect to a VM on a host , specify Host name or IP, user name, password, check "Connect to VM" and select the VM in the dropdown.

⚠ When connecting to a local Hyper-V Host use "." as hostname with blank username and password

## Using cVM switches

cVM can take all settings as parameters (switches). This way you can create shortcuts to VM's or connect to a VM at login by putting it in auto start or in registry.

## Switches

- **Host**

The computer or the host of the VM to connect to

- **Username**

The user to connect as.

- **Password**

The user password.

- **port**

Port to use for connection for usually 3389 for RDP and 2179 for VM's.

- **VMName**

The name of the VM. This is not the Friendly name but the GUID of the VM ("13DFE6AD-BD6C-441A-8CFA-7FACBB41D702").

- **ElementName**

The Friendly name of the VM. It is recommended to use VMName instead. When using Element name cVm must contact Hyper-V to get the Name of the VM. This will take some extra time...

- **FullScreen**

1 to start connection in full screen mode. Default is 0.

- **PinConnectionBar**

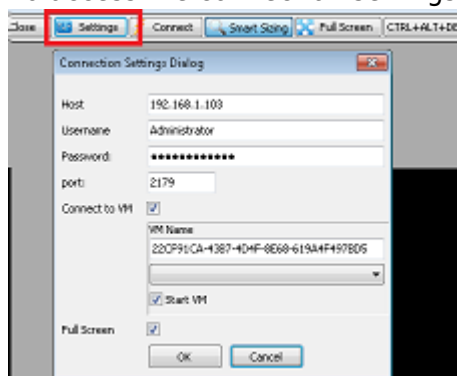
1 to pin the connection bar. Default is 1.

- **StartVM**

1 to start the VM if it is stoped. Default is 0.

An easy way of getting the switches needed is to open cVM.exe and fill in all the parameters and the copy the text of the "CMD line" edit (at the very bottom of the connection dialog). If you open cVM from [ProHVM](#) (by holding down SHIFT-Key while selecting connect) most parameters will already be automatically filled in.

To access the connection settings in an active connection click the "Settings" button in cVM.



⚠ Don't forget to change your password, if needed! It will show up as Password="«YOURPASS»" in the "CMD line" field. Also if you are connecting to a local Hyper-V host, change the host parameter to "."

## Examples:

To connect to a host using RDP:

```
cVM.exe Host="192.168.1.103" Username="Administrator" Password="Password"
```

To connect to a VM on Local Hyper-V Server using VMName:

```
cVM.exe Host="." VMName="13DFE6AD-BD6C-441A-8CFA-7FACBB41D702"
```

Connect to VM on a local Hyper-V Host using ElementName in FullScreen:

```
cVM.exe Host="." ElementName="MyVMFriendlyName" FullScreen=1
```

Connect to a remote Hyper-V Server:

```
cVM.exe Host="192.168.1.103" Username="Administrator" Password="password"  
VMName="13DFE6AD-BD6C-441A-8CFA-FACBB41D702" FullScreen="1"  
PinConnectionBar="0"
```

From:

<http://www.probus-it.se/help/> - **Probus-IT Help**

Permanent link:

<http://www.probus-it.se/help/doku.php/hvm:cvm>

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