



How to prepare a Windows 2008 Server to be used
as an openQRM Hyper-V Host

Hyper-V Powershell cmdlet

<http://pshyperv.codeplex.com/releases>



Select Features

Features

Confirmation

Progress

Results

Select one or more features to install on this server.

Features:

- .NET Framework 3.5.1 Features
 - .NET Framework 3.5.1
 - WCF Activation
- Background Intelligent Transfer Service (BITS)
- BitLocker Drive Encryption
- BranchCache
- Connection Manager Administration Kit
- Desktop Experience
- DirectAccess Management Console
- Failover Clustering
- LPR Port Monitor
- Message Queuing
- Multipath I/O
- Network Load Balancing
- Peer Name Resolution Protocol
- Quality Windows Audio Video Experience

Description:

[Microsoft .NET Framework 3.5.1](#) combines the power of the .NET Framework 2.0 APIs with new technologies for building applications that offer appealing user interfaces, protect your customers' personal identity information, enable seamless and secure communication, and provide the ability to model a range of business processes.

Enable .NET

[More about features](#)

< Previous

Next >

Install

Cancel





Select Server Roles

Before You Begin

Server Roles

Hyper-V

Virtual Networks

Confirmation

Progress

Results

Select one or more roles to install on this server.

Roles:

- Active Directory Certificate Services
- Active Directory Domain Services
- Active Directory Federation Services
- Active Directory Lightweight Directory Services
- Active Directory Rights Management Services
- Application Server
- DHCP Server
- DNS Server
- Fax Server
- File Services
- Hyper-V
- Network Policy and Access Services
- Print and Document Services
- Remote Desktop Services
- Web Server (IIS)

Description:

[Hyper-V](#) provides the services that you can use to create and manage virtual machines and their resources. Each virtual machine is a virtualized computer system that operates in an isolated execution environment. This allows you to run multiple operating systems simultaneously.

Start Hyper-V

[More about server roles](#)

< Previous

Next >

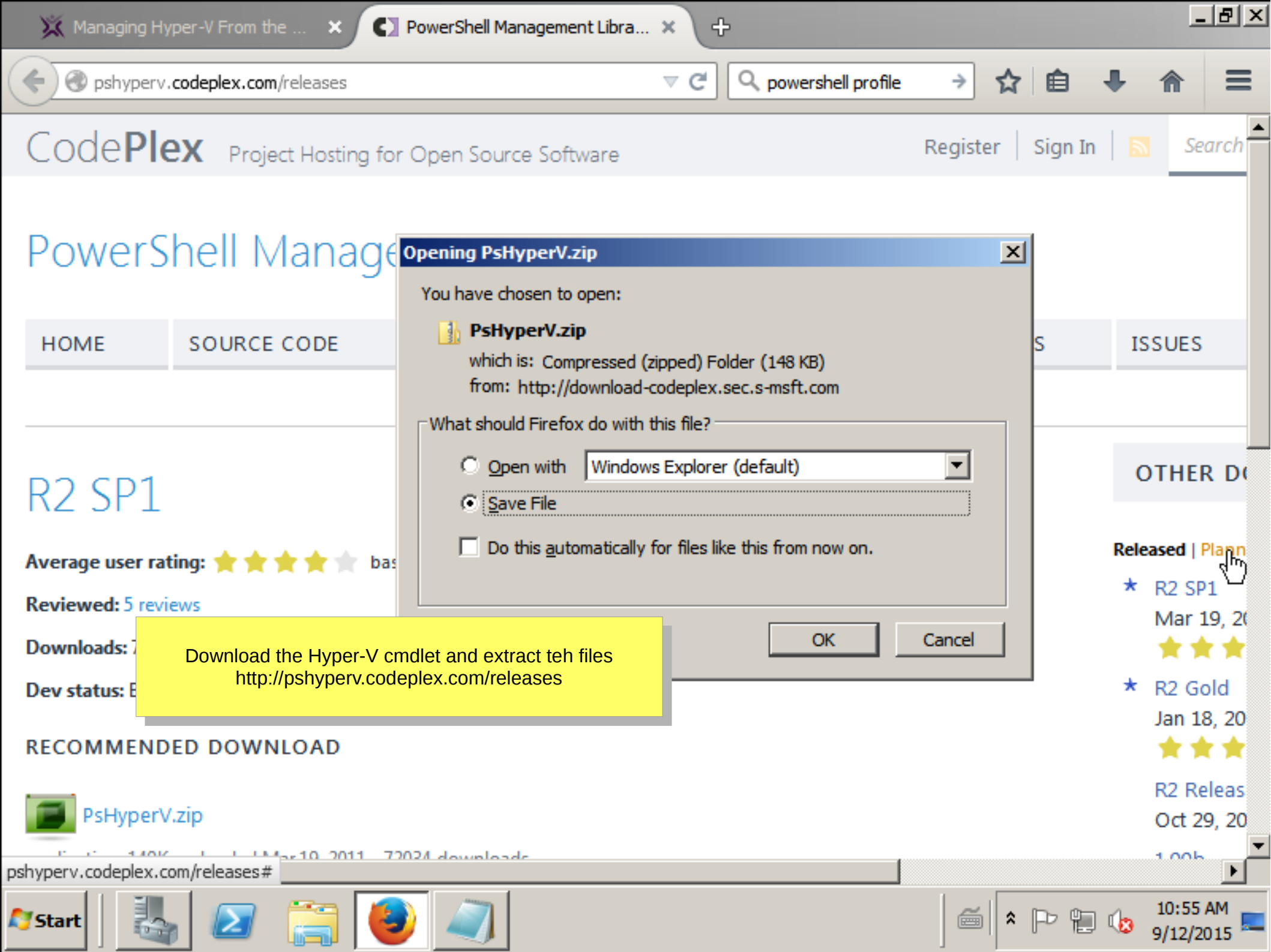
Install

Cancel



10:59 AM
9/12/2015





PowerShell Management

HOME SOURCE CODE

ISSUES

R2 SP1

Average user rating: ★★★★★ based on 5 reviews

Reviewed: 5 reviews

Downloads: 72024

Dev status: Released


RECOMMENDED DOWNLOAD

 PsHyperV.zip

Download the Hyper-V cmdlet and extract teh files
<http://pshyperv.codeplex.com/releases>

Opening PsHyperV.zip

You have chosen to open:

 **PsHyperV.zip**
 which is: Compressed (zipped) Folder (148 KB)
 from: <http://download-codeplex.sec.s-msft.com>

What should Firefox do with this file?

Open with Windows Explorer (default)

Save File

Do this automatically for files like this from now on.

OK Cancel

OTHER DOWNLOADS

Released | **Planned**

★ R2 SP1

Mar 19, 2015

★★★★★

★ R2 Gold

Jan 18, 2015

★★★★★

R2 Release

Oct 29, 2014

1,006



Recycle Bin

desktop.ini



Mozilla Firefox



Firefox Setup Stub 40.0...



PsHyperV

```

Administrator: Command Prompt
Microsoft Windows [Version 6.1.7600]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>cd Desktop\PsHyperV
C:\Users\Administrator\Desktop\PsHyperV>install.cmd_

```

Install the cmdlet
 Make sure you run the terminal as Administrator



Recycle Bin



desktop.ini



Mozilla Firefox



Firefox Setup Stub 40.0....



PsHyperV

```

Administrator: Command Prompt - install.cmd
Installing PowerShell module for HyperV
=====
Ensuring that .Net Framework 2 and Windows PowerShell are installed
Press [ctrl][c] to abort or
Press any key to continue . . .
  
```

Installation step 1

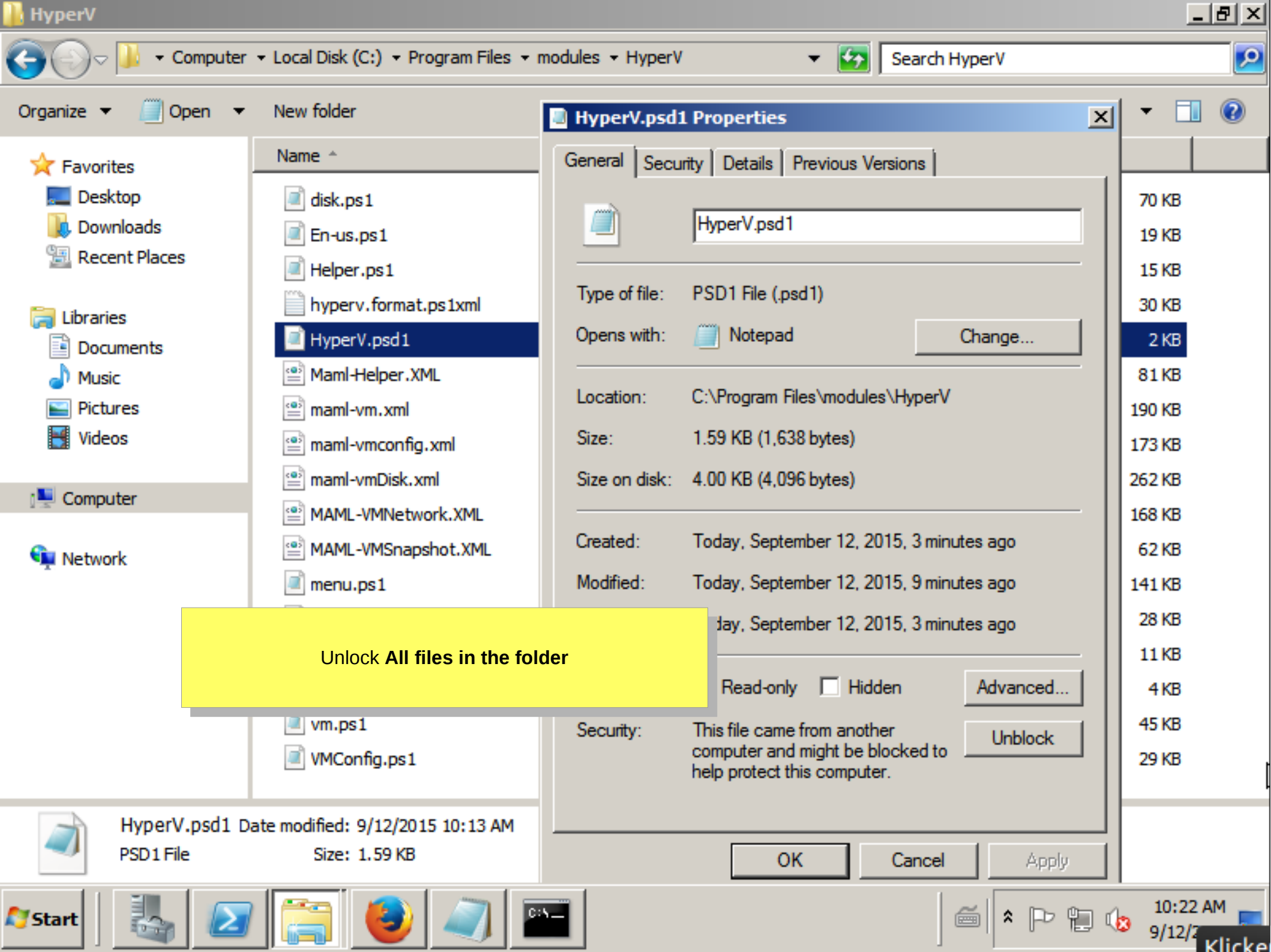

```
Import-Module : There were errors in loading the format data file:  
Microsoft.PowerShell, , C:\Program Files\modules\hyperV\hyperv.Format.ps1xml : File skipped bec  
ause of the following validation exception: File C:\Program Files\modules\hyperV\hyperv.Format.  
ps1xml cannot be loaded. The file C:\Program Files\modules\hyperV\hyperv.Format.ps1xml is not d  
igitally signed. The script will not execute on the system. Please see "get-help about_signing"  
for more details...
```

```
At line:1 char:14
```

```
+ Import-Module <<<< 'C:\Program Files\modules\hyperV'  
+ CategoryInfo          : InvalidOperation: (:) [Import-Module], RuntimeException  
+ FullyQualifiedErrorId : FormatXmlUpdateException,Microsoft.PowerShell.Commands.ImportModu  
leCommand
```

```
PS C:\Users\Administrator\Desktop\PshyperV> _
```

If you get this message after installation:
Close powershell and proceede



Unlock All files in the folder

HyperV.ps1 Properties

General | Security | Details | Previous Versions

HyperV.ps1

Type of file: PSD1 File (.psd1)

Opens with: Notepad Change...

Location: C:\Program Files\modules\HyperV

Size: 1.59 KB (1,638 bytes)

Size on disk: 4.00 KB (4,096 bytes)

Created: Today, September 12, 2015, 3 minutes ago

Modified: Today, September 12, 2015, 9 minutes ago

Read-only Hidden Advanced...

Security: This file came from another computer and might be blocked to help protect this computer. Unblock

OK Cancel Apply

70 KB
19 KB
15 KB
30 KB
2 KB
81 KB
190 KB
173 KB
262 KB
168 KB
62 KB
141 KB
28 KB
11 KB
4 KB
45 KB
29 KB

HyperV.ps1 Date modified: 9/12/2015 10:13 AM
PSD1 File Size: 1.59 KB

Windows PowerShell

Copyright (C) 2009 Microsoft Corporation. All rights reserved.

```
PS C:\Users\Administrator> Import-Module "C:\Program Files\Modules\Hyperv\Hyperv.psd1"
```

```
PS C:\Users\Administrator> Get-UM
```

```
PS C:\Users\Administrator>
```

Import module and test function

```
Import-Module 'C:\Program Files\Modules\Hyperv\Hyperv.psd1'
```

Windows PowerShell

Copyright (C) 2009 Microsoft Corporation. All rights reserved.

PS C:\Users\Administrator> Import-Module "C:\Program Files\Modules\HyperV\HyperV.psd1"

PS C:\Users\Administrator> Get-UM

PS C:\Users\Administrator> Test-Path \$Profile

False

PS C:\Users\Administrator> New-Item -path \$profile -type file -force

Directory: C:\Users\Administrator\Documents\WindowsPowerShell

Mode	LastWriteTime	Length	Name
-a---	9/12/2015 10:44 AM	0	Microsoft.PowerShell_profile.ps1

PS C:\Users\Administrator>

Create a profile to auto start the cmdlet

New-Item -path \$profile -type file -force

Name	Date modified	Type	Size
------	---------------	------	------

Microsoft.PowerShell_profile.ps1	9/12/2015 10:48 AM	PS1 File	1 KB
----------------------------------	--------------------	----------	------

- ★ Favorites
 - Desktop
 - Downloads
 - Recent Places
- Libraries
 - Documents
 - Music
 - Pictures
 - Videos
- Computer
- Network

```
Microsoft.PowerShell_profile.ps1 - Notepad
File Edit Format View Help
Import-Module "C:\Program Files\Modules\Hyperv\Hyperv.ps1"
```

Prepare Administrator profile
Import-Module 'C:\Program Files\Modules\Hyperv\Hyperv.ps1'

Name	Date modified	Type	Size
------	---------------	------	------

v1.0	7/13/2009 10:41 PM	File folder	
Microsoft.PowerShell_profile.ps1	9/12/2015 10:48 AM	PS1 File	1 KB

- ★ Favorites
 - Desktop
 - Downloads
 - Recent Places

- Libraries
 - Documents
 - Music
 - Pictures
 - Videos

- Computer
- Network

```
Microsoft.PowerShell_profile.ps1 - Notepad
File Edit Format View Help
Import-Module "C:\Program Files\Modules\Hyperv\Hyperv.psd1"
```

Prepare Global profile

```
Import-Module 'C:\Program Files\Modules\Hyperv\Hyperv.psd1'
```



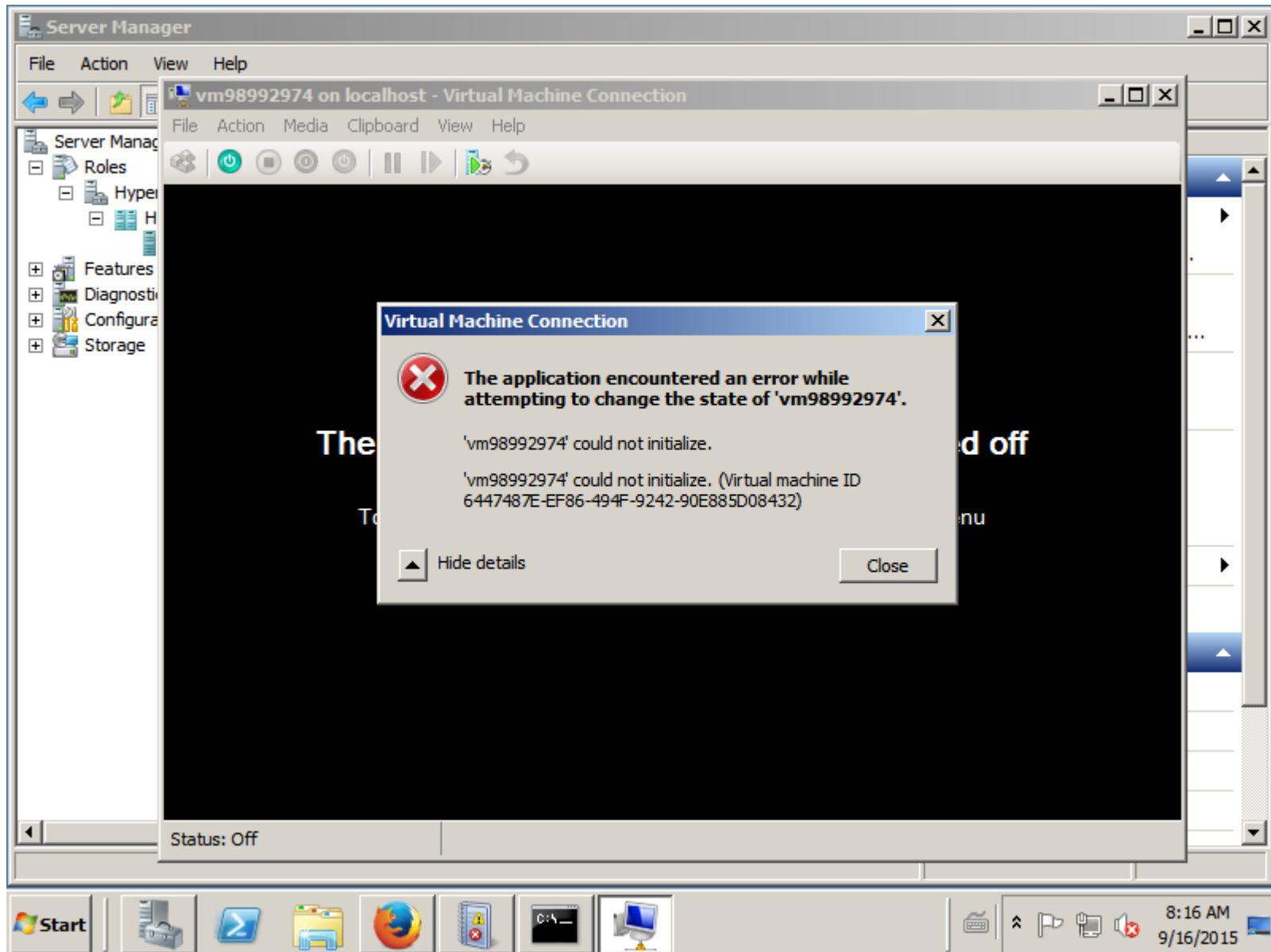
Links

[managing-hyper-v-from-command-line-part1.html](#)
[Pshyperv.codeplex.com](#)

Known Problems:

Hyper-V 2008 does not support all CPUs.
[Windows Support](#)

AMD CPU AVX Bug



AMD CPU AVX Bug Workaround

The screenshot shows the 'Settings for vm98992974' window in VMware Workstation. The left sidebar lists hardware components under 'Hardware' and management options under 'Management'. The main pane shows the 'Processor' settings for '1 Virtual processor'. The 'Number of logical processors' is set to 1. The 'Resource control' section includes sliders for 'Virtual machine reserve (percentage)' (0), 'Percent of total system resources' (0), 'Virtual machine limit (percentage)' (100), and 'Percent of total system resources' (16). The 'Relative weight' is set to 100. The 'Processor Compatibility' section has 'Migrate to a physical computer with a different processor version' checked and 'Run an older operating system, such as Windows NT' unchecked. The taskbar at the bottom shows the Start button, several application icons, and the system tray with the date and time: 8:17 AM, 9/16/2015.

Server Settings for vm98992974

vm98992974

Hardware

- Add Hardware
- BIOS
Boot from CD
- Memory
512 MB
- Processor**
1 Virtual processor
- IDE Controller 0
 - Hard Drive
vm98992974.vhd
- IDE Controller 1
 - DVD Drive
debian-8.2.0-amd64-netinst.iso
- VM-Bus Network Adapter
VMNet
- COM 1
None
- COM 2
None
- Diskette Drive
None

Management

- Name
vm98992974
- Integration Services
All services offered
- Snapshot File Location
C:\ProgramData\Microsoft\Windo...
- Automatic Start Action

Processor

You can modify the number of virtual processors based on the number of processors on the physical machine. You can also modify other resource control settings.

Number of logical processors: 1

[More about virtual processors](#)

Resource control

You can use resource controls to balance resources among virtual machines.

Virtual machine reserve (percentage):	0
Percent of total system resources:	0
Virtual machine limit (percentage):	100
Percent of total system resources:	16
Relative weight:	100

[More about resource control](#)

Processor Compatibility

You can limit the processor features that a virtual machine can use. This improves the virtual machine's compatibility with different processor versions and older guest operating systems. Select the scenarios you want to enable:

- Migrate to a physical computer with a different processor version
- Run an older operating system, such as Windows NT

Start | 8:17 AM 9/16/2015