

"Check and upgrade Tools before each ...



[statssweden](#) 1 posts since

Oct 31, 2005 After upgrading one of my ESX-hosts to 3.5.0,110268 (from 3.5.0,84374) and then migrated VM's back to this host, several of the VM's started to upgrade their VM Tools resulting in unexpected reboots and in some cases OS-freezing in the virtual machine.

The option "**Check and upgrade Tools before each power-on**" was activated on all VM's, but since I didn't manually initiate any reboots on the VM's, the upgrade shouldn't have taken place, right?

But after contacting VMware Support with this question, I got the somewhat terrifying answer:

"This is a known issue which will be fixed in a future patch. The issue is caused because when the virtual machine is VMotioned to another ESX host, the tools see a power on event as the virtual machine resumes. Currently the only workaround is to disable the "Check and upgrade Tools before each power-on" option."

The scary part is that there exists no official information regarding this bug:

"Additional information has not been released on this while it is being worked on internally however as I mentioned in my previous mail it will be fixed going forward."

So consider this a warning, don't use the option "Check and upgrade Tools before each power-on" before VMware has released a patch for this bug. Tags: vmtools



[gdesmo](#) 224 posts since

Jun 7, 2005 **1. Re: "Check and upgrade Tools before each power-on" restarts VM's unexpectedly during a migration from a lesser version host to a ESX 3.5u2!** Oct 16, 2008 11:41 AM


Ouch! I got bit by this issue last night. Only some of my vm's that have this box checked got upgraded/re-booted. Others were fine.. Strange. Any update from support?

I have more hosts to patch tonight. Is there a way to disable this check box without powering down the vm's?



[henketh](#) 21 posts since

Aug 15, 2006 **2. Re: "Check and upgrade Tools before each power-on" restarts VM's unexpectedly during a migration from a lesser version host to a ESX 3.5u2!** Oct 16, 2008 12:59 PM

 in response to: [gdesmo](#) No, not a word from support! And consequently I'm not sure how this option works in U3, but since they promised to let me know when a solution is available, I guess they haven't fixed it yet..

Yes, you can use VI Toolkit and a script. I believe this is the right script for turning this feature ON:

```
connect-viserver -server <server> -user <user> -password <pwd> $vm = Get-View (Get-VM VMName).Id
$vmConfigSpec = New-Object VMware.Vim.VirtualMachineConfigSpec $vmConfigSpec.Tools = New-Object
VMware.Vim.ToolsConfigInfo $vmConfigSpec.Tools.ToolsUpgradePolicy = "UpgradeAtPowerCycle"
$vm.ReconfigVM($vmConfigSpec)
```

For turning it OFF I believe you should change "UpgradeAtPowerCycle" to "Manual", but I can't confirm this right now since I don't remember it and as I'm at home right now I can't check my script at work.

"Check and upgrade Tools before each ...

I believe you can verify the syntax by checking this value in the .vmx-file for a VM. Check the vmx-file for a VM with the "check and upgrade" option turned ON, it should have "UpgradeAtPowerCycle" somewhere, and then check the corresponding value in av .vmx-file belonging to a machine with the feature turned OFF, I'm positive it should read "Manual".

Let me know your results!



[henketh](#) 21 posts since

Aug 15, 2006 3. Re: "**Check and upgrade Tools before each power-on**" restarts VM's unexpectedly during a migration from a lesser version host to a ESX 3.5u2! Oct 17, 2008 12:14 AM

in response to: [gdesmo](#) Hello again!

Now I'm at work, and my exact script for the VI Toolkit reads like this, and disables the "Check and upgrade tools at each power-on" on all machines:

```
#Start

[Reflection.Assembly]::LoadWithPartialName("vmware.vim")
$vmConfigSpec = New-Object VMware.Vim.VirtualMachineConfigSpec
$vmConfigSpec.Tools = New-Object VMware.Vim.ToolsConfigInfo
$vmConfigSpec.Tools.ToolsUpgradePolicy = "manual"
Get-VM | % { (Get-View $_.ID).ReconfigVM($vmConfigSpec)}

#End
```

(I had to paste this as an image to keep the formatting right)

And in the vmx-file there's a entry that reads:

tools.upgrade.policy = "manual" or "upgradeAtPowerCycle"

Good luck!



[gdesmo](#) 224 posts since

Jun 7, 2005 4. Re: "**Check and upgrade Tools before each power-on**" restarts VM's unexpectedly during a migration from a lesser version host to a ESX 3.5u2! Oct 17, 2008 9:57 AM

in response to: [henketh](#)

Sorry I am not very verse in scripting. Would I not need the below to connect to my vc server? Your second post looks quite different than your first. I just need to paste your second post in the vi tool kit window?

connect-viserver -server <server> -user <user> -password <pwd>


Thank you



[henketh](#) 21 posts since

Aug 15, 2006 5. Re: "**Check and upgrade Tools before each power-on**" restarts VM's unexpectedly during a migration from a lesser version host to a ESX 3.5u2! Oct 17, 2008 11:28 AM

"Check and upgrade Tools before each ...

 in response to: [gdesmo](#) Sorry, my second post assumed that you already have connected to your vi-server. So use the line

```
connect-viserver -server <server> -user <user> -password <pwd>
```

to create the connection

THEN

paste the lines from my second post

and finally press ENTER


Then you can follow the progress of the modification of the VM's in VirtualCenters Recent Tasks pane.



[gdesmo](#) 224 posts since

Jun 7, 2005 6. Re: "Check and upgrade Tools before each power-on" restarts VM's unexpectedly during a migration from a lesser version host to a ESX 3.5u2! Oct 17, 2008 12:08 PM

 in response to: [henketh](#)

Hello Again  It errored on me. I think it might be formatting? Are there carriage returns after each of your lines in your image?

```
PS C:\Program Files\VMware\Infrastructure\VIToolkitForWindows> Get-View (Get-VM
VMName).Id $vmConfigSpec = New-Object VMware.Vim.VirtualMachineConfigSpec $vmCon
figSpec.Tools = New-Object VMware.Vim.ToolsConfigInfo $vmConfigSpec.Tools.ToolsU
pgradePolicy = "UpgradeAtPowerCycle" $vm.ReconfigVM($vmConfigSpec)
Get-VM : 10/17/2008 12:50:20 PM Get-VM VM with name 'VMName' not found, using the specified filter(s).
```

At line:1 char:17

```
+ Get-View (Get-VM <<<< VMName).Id $vmConfigSpec = New-Object VMware.Vim.Virtu
alMachineConfigSpec $vmConfigSpec.Tools = New-Object VMware.Vim.ToolsConfigInfo
$vmConfigSpec.Tools.ToolsUpgradePolicy = "UpgradeAtPowerCycle" $vm.ReconfigVM(
$vmConfigSpec)
```

You cannot call a method on a null-valued expression.

At line:1 char:229

```
+ Get-View (Get-VM VMName).Id $vmConfigSpec = New-Object VMware.Vim.VirtualMach
ineConfigSpec $vmConfigSpec.Tools = New-Object VMware.Vim.ToolsConfigInfo $vmCo
nfigSpec.Tools.ToolsUpgradePolicy = "UpgradeAtPowerCycle" $vm.ReconfigVM( <<<<
$vmConfigSpec)
```

```
PS C:\Program Files\VMware\Infrastructure\VIToolkitForWindows>
```

```
PS C:\Program Files\VMware\Infrastructure\VIToolkitForWindows> [Reflection.Assem
bly]::LoadWithPartialName("vmware.vim")
```

```
GAC Version Location
```

"Check and upgrade Tools before each ...

True v2.0.50727 C:\WINDOWS\assembly\GAC_MSIL\VMware.Vim\1.0.0.0__10980...

```
PS C:\Program Files\VMware\Infrastructure\VIToolkitForWindows> $vmConfigSpec = New-Object VMware.Vim.VirtualMachineConfigSpec
```

```
PS C:\Program Files\VMware\Infrastructure\VIToolkitForWindows> $vmConfigSpec.Tools = New-Object VMware.Vim.ToolsConfigInfo
```

```
PS C:\Program Files\VMware\Infrastructure\VIToolkitForWindows> $vmConfigSpec.Tools.UpgradePolicy = "UpgradeAtPowerCycle"
```

```
PS C:\Program Files\VMware\Infrastructure\VIToolkitForWindows> Get-VM | %{{(Get-View $_.ID).ReconfigVM($vmConfigSpec)}}
```



[henketh](#) 21 posts since

Aug 15, 2006 7. Re: "**Check and upgrade Tools before each power-on**" restarts VM's unexpectedly during a migration from a lesser version host to a ESX 3.5u2! Oct 17, 2008 12:26 PM

in response to: [gdesmo](#) Hi again!

You don't seem to be using the first line of the script in the image? Reflection.Assembly and so on..?

And then you use the "UpgradeAtPowerCycle" -value? That's for turning the feature ON, and you wanted to turn it off? Then you should replace that with the value "manual" (also in my script in the image)

Check out the link "Managing VMware with PowerShell -- Frequently Asked Questions"
<http://communities.vmware.com/docs/DOC-4210>

for some useful tips.

Keep on scripting! 😊



[henketh](#) 21 posts since

Aug 15, 2006 8. Re: "**Check and upgrade Tools before each power-on**" restarts VM's unexpectedly during a migration from a lesser version host to a ESX 3.5u2! Oct 17, 2008 12:27 PM

in response to: [henketh](#)

...and yes, it's a CR after each line.



[gdesmo](#) 224 posts since

Jun 7, 2005 9. Re: "**Check and upgrade Tools before each power-on**" restarts VM's unexpectedly during a migration from a lesser version host to a ESX 3.5u2! Oct 20, 2008 9:03 AM

in response to: [henketh](#)

Ok here is the latest failure 😊

```
PS C:\Program Files\VMware\Infrastructure\VIToolkitForWindows> [Reflection.Assembly
```

"Check and upgrade Tools before each ...

```
bly]::LoadWithPartialName("vmware.vim")
```

```
GAC Version Location
```

```
---
```

```
True v2.0.50727 C:\WINDOWS\assembly\GAC_MSIL\VMware.Vim\1.0.0.0__10980...
```

```
PS C:\Program Files\VMware\Infrastructure\VIToolkitForWindows> $vmConfigSpec = New-Object VMware.Vim.VirtualMachineConfigSpec
```

```
PS C:\Program Files\VMware\Infrastructure\VIToolkitForWindows> $vmConfigSpec.Tools = New-Object VMware.Vim.ToolsConfigInfo
```

```
PS C:\Program Files\VMware\Infrastructure\VIToolkitForWindows> $vmConfigSpec.Tools.ToolsUpgradePolicy = "Manual"
```

```
PS C:\Program Files\VMware\Infrastructure\VIToolkitForWindows> Get-VM | %{{(Get-View $_.ID).ReconfigVM($vmConfigSpec)}}
```

```
Missing ')' in method call.
```

```
At line:1 char:40
```

```
+ Get-VM | %{{(Get-View $_.ID).ReconfigVM($vmConfigSpec)}}
```

```
PS C:\Program Files\VMware\Infrastructure\VIToolkitForWindows>
```

I also tried the script in the managing powershell FAQ. That looked a little different than yours. It also did not complete.

```
PS C:\Program Files\VMware\Infrastructure\VIToolkitForWindows> $vm =
```

```
Get-View (Get-VM VMName).Id $vmConfigSpec = New-Object VMware.Vim.VirtualMachineConfigSpec
```

```
Get-VM : 10/20/2008 10:02:52 AM Get-VM VM with name 'VMName' not found, using the specified filter(s).
```

```
At line:2 char:17
```

```
+ Get-View (Get-VM <<<< VMName).Id $vmConfigSpec = New-Object VMware.Vim.VirtualMachineConfigSpec
```

```
Get-View : The argument cannot be null or empty.
```

```
At line:2 char:9
```

```
+ Get-View <<<< (Get-VM VMName).Id $vmConfigSpec = New-Object VMware.Vim.VirtualMachineConfigSpec
```

```
PS C:\Program Files\VMware\Infrastructure\VIToolkitForWindows> $vmConfigSpec.Tools = New-Object VMware.Vim.ToolsConfigInfo
```

```
PS C:\Program Files\VMware\Infrastructure\VIToolkitForWindows>
```

```
PS C:\Program Files\VMware\Infrastructure\VIToolkitForWindows> $vmConfigSpec.Tools.ToolsUpgradePolicy = "Manual" $vm.ReconfigVM($vmConfigSpec)
```

```
Unexpected token 'vm' in expression or statement.
```

```
At line:1 char:54
```

"Check and upgrade Tools before each ...

```
+ $vmConfigSpec.Tools.ToolsUpgradePolicy = "Manual" $vm. <<<< ReconfigVM($vmConfigSpec)
```

```
PS C:\Program Files\VMware\Infrastructure\VIToolkitForWindows>
```



[gdesmo](#) 224 posts since

Jun 7, 2005 10. Re: "Check and upgrade Tools before each power-on" restarts VM's unexpectedly during a migration from a lesser version host to a ESX 3.5u2! Oct 20, 2008 11:05 AM

in response to: [gdesmo](#)

Ok I figured it out. I was missing a dollar sign in the below line. Right before vmConfigSpec. Thanks

```
Get-VM | %{{(Get-View $_.ID).ReconfigVM($vmConfigSpec)}}
```

I am assuming even though this value will be changed. It will not become active until the vm is re-booted? Because the vmx is already loaded in memory. A vmotion could still initiate a tools upgrade?



[ploleary](#) 28 posts since

Aug 16, 2005 11. Re: "Check and upgrade Tools before each power-on" restarts VM's unexpectedly during a migration from a lesser version host to a ESX 3.5u4 158874 May 13, 2009 11:50 AM

in response to: [gdesmo](#) Has anyone seen this again? Had 15 guests upgrade tools and reboot the other night after an upgrade to U4 and 158874 - DRS migrated guests back to the remediated host after it came out of maint mode. The guests were on the January tools release so they should have had the U3 patch that is referred to below. In the logs of a host it has:

```
tools: 05/06/09 03:42:20 Minor upgrade - migrating the tools conf settings
```

But then proceeds to do a full upgrade and reboot.

Anyone else seen this behaviour?