# Patching Windows On A Dedicated Server

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### Introduction

This document list down the steps you need to take to update/patch your windows OS.

Here we will demonstrate how to update windows using GUI and CUI. Although both the methods are doing the same thing, we recommend that you should use GUI as there are very little chances of error and it is easy to troubleshoot in case of issues.

## Using GUI

Below are the steps you need to take in order to update/patch your windows using graphical user interface.

Step 1: Open the windows update control panel. To open the same go to Start>Type"windows update">Enter or Start>Run>Type"wuapp.exe" in the run window and press enter.

	Run ×			
	Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.			
<u>O</u> pen:	wuapp.exe 🔶 🗸			
	This task will be created with administrative privileges.			
	OK Cancel <u>B</u> rowse			

Step 2:

A. Click on "Check online for updates from Windows Update". or

B. "Check for updates" whichever is available from A and B.

C. If the automatic updating is not enabled in windows update setting then it will give an error, if it is the case then click on "Turn on automatic updates".

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Step 3: Select all important updates and click on "Install Updates"



Step 4: As soon as the installation is finished, click on "Restart now" to reboot the server.

	windows update		
🐑 🛞 🕤 🛧 📢 🕨 Control Pa	anel > System and Security > Windows Update	v ¢	Search Control Panel
Control Panel Home	Windows Update		
Check for updates			
Change settings	Restart your PC to finish installing updates		
View update history			
Restore hidden updates	Bezzat now		
	Most recent check for updates: Today at 10:05 AM Updates were installed: Today at 10:13 AM.		
	You receive updates: Managed by your system administrator		
	You checked online for updates from Windows Update.		
	Check for updates managed by your system administrator		
See also			
Installed Updates			

### Using CUI

Below are the steps you need to take in order to update/patch your windows using Command line interface.

#### **Method 1: Using Native Commands**

Step 1: Start a command prompt window as administrator. To do the same, go to Start>Type"Command Prompt">Right Click on Command Prompt>



Step 2: To check and update the windows type the below command and press enter.

Command:

- 1. reg add "HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\WindowsUpdate\Auto Update" /v AUOptions /t REG\_DWORD /d 1 /f
- 2. wuauclt.exe /detectnow /updatenow

Note: This will not work if you have set "Never check for updates" in Windows Update settings. In this case go for GUI option given above.



Step 3: After running the same when you open the windows update control panel, you will be able to see the status of the installation.

Note: You will be able to see the status after at least 5-10 minutes of running the command as it will detect the updates first then it will start preparing to install the updates. If the status is not being shown then it is better to go for GUI option. Although you can check the status in the following log if you want to troubleshoot: C:\Windows\WindowsUpdate.log

	Window	Update	- 0
🕘 🕤 🕆 🚯 🕨 Control Panel	System and Security  Windows Update	v & Search Control Panel	el
trol Panel Home	Windows Update		
ange settings w update hintery itore hidden updates	Preparing to install		
	Step installation		
	Most recent check for updates: Today at 158 AM Updates were installed: Never You receive updates: For Windows only.		
lso.			

Step 4: Once the installation is finished, reboot the server by clicking on "Restart now"

	windows update	- 0
🕘 🕤 🛧 🛊 🐼 🔹 Control Par	nel > System and Security > Windows Update	v 🖒 Search Control Panel
Control Panel Home		
	Windows Update	
Check for updates		
Change settings	Restart your PC to finish installing updates	
View update history		
Restore hidden updates	Bestart now	
	-	
	Most recent check for updates: Today at 10:05 AM Updates were installed: Today at 10:13 AM.	
	You receive updates: Managed by your system administrator	
	You checked online for updates from Windows Updates.	
	Check for updates managed by your system administrator	
See also		
Installed Updates		

#### Method 2:Using VB Script

To update windows using a VB script provided by Microsoft in the below link you have to follow the instructions provided in the link itself.

Note: We have tested the same on our test server and the script works seamlessly. You might have to enable automatic updating using below command before running the script

reg add "HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\WindowsUpdate\Auto Update" /v AUOptions /t REG\_DWORD /d 1 /f

https://msdn.microsoft.com/en-us/library/aa387102(v=vs.85).aspx

### Verification Steps For SMB Attack Vulnerability After The Update

#### Verify on Windows 2008 R2

There are two patches released by Microsoft for Windows 2008 R2 as per the following doc.

https://technet.microsoft.com/en-us/library/security/ms17-010.aspx

- 1. KB4012215
- 2. KB4012212

Open Powershell window as Administrator and run below command:

if(get-hotfix | select-string "kb4012215"){Write-host "kb4012215 Installed successfully"}else{Write-warning "kb4012215 missing"} if(get-hotfix | select-string "kb4012212"){Write-host "kb4012212 Installed successfully"}else{Write-warning "kb4012212 missing"}

The output will tell you if the server is patched properly or the update is missing.



#### Verify on Windows 2012 R2

There are two patches released by Microsoft for Windows 2012 R2 as per the following doc.

https://technet.microsoft.com/en-us/library/security/ms17-010.aspx

- 1. KB4012213
- 2. KB4012216

Open Powershell window as Administrator and run below command:

if(get-hotfix | select-string "kb4012213"){Write-host "kb4012213 Installed successfully"}else{Write-warning "kb4012213 missing"} if(get-hotfix | select-string "kb4012216"){Write-host "kb4012216 Installed successfully"}else{Write-warning "kb4012216 missing"}

The output will tell you if the server is patched properly or the update is missing.



### References

https://technet.microsoft.com/en-us/library/security/ms17-010.aspx

https://msdn.microsoft.com/en-us/library/aa387102(v=vs.85).aspx