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Switch Windows 10 from RAID/IDE to AHCI

Support Team - 2020-04-01 - 25 Comments - in [Microsoft Windows](#)

Some systems will have the Windows operating system installed using RAID drivers including the *Intel Rapid Storage Technology*. SSD drives typically perform better using AHCI drivers. There is in fact a way to *switch* operation from either IDE / RAID to AHCI within Windows 10 without having to reinstall. Here are the steps:

Click the Start Button and type **cmd**

Right-click the result and select **Run as administrator**

Type this command and press ENTER: **bcdedit /set {current} safeboot minimal (ALT: bcdedit /set safeboot minimal)**

Restart the computer and enter BIOS Setup

Change the SATA Operation mode to AHCI from either IDE or RAID

Save changes and exit Setup and Windows will automatically boot to Safe Mode.

Right-click the Windows Start Menu once more. Choose **Command Prompt (Admin)**.

Type this command and press ENTER: `bcdedit /deletevalue {current} safeboot` (ALT: `bcdedit /deletevalue safeboot`)

Reboot once more and Windows will automatically start with AHCI drivers enabled.

Tags

AHCI

Intel Rapid Storage

RAID

Windows

Windows 10

Windows 7

Windows 8

Comments (25)

Chris Tue, 13th
Nov 2018 8:30am

Correction. There **must** be a space between bcdedit and the forward slash. There is no command called "bcdedit/set" (for good reason)

Good information and thank you - it worked nicely. :)

Waron Thu, 22nd
Nov 2018 8:22am

this works, thanks

I used the ALT commands

Jeffrey Wed, 2nd
Jan 2019 1:50pm

This approach worked on my Windows 10 machine - which should have been set up with AHCI in the first place since all of my drives are SSD. However one must know that it may take several reboots for your D: disk to re-appear and become stable. In the first reboot, my data appeared to have been lost. After swearing at the computer several times, I decided that perhaps a reboot would help the situation. Fortunately after 2 more reboots, the disk re-appeared and all of the data was intact.

Thank you for these steps to switch my computer from RAID to AHCI.

Grant Sun, 10th
Feb 2019 9:33am

Added a Samsung 970 Evo (500GB) NVMe M.2 alongside the existing HDD in new Dell Inspiron 5570. Samsung software couldn't load the drivers because drives configured for RAID. I set AHCI in BIOS and W10 (home) wouldn't boot up. Returned to BIOS to RAID and rebooted successfully. Found this thread and tried it. Yes, it worked! It took a bit of work to manipulate the the drive letters afterwards but got there eventually. Thank you for the information.

Evan Thu, 7th Mar
2019 10:19am

I had a really odd experience attempting this on Windows 10, but I finally figured it out:

When I switched to AHCI and got to the safeboot menu, my keyboard wouldn't work. If I tried to get to the keyboard settings

nothing happened. I was able to get to the Command Prompt terminal via the 'Windows Systems' tab in the Start Menu. Once I had opened the Command Prompt, I could type in it using the on-screen keyboard (Start Menu -> Settings -> Ease of Access -> Keyboard (scroll down and it's on the left) -> On-Screen Keyboard). Then I typed bcdedit /deletevalue safeboot (there didn't seem to be a way to use curly brackets). Then I Rebooted, and found that I had left Safe Mode, and everything was back to normal :)

It's one hell of a work-around, but hopefully this helps somebody!

Vinícius Sun, 10th
Mar 2019 9:41am

Thanks @Evan! The keyboard thing also happened to me, but using the virtual keyboard did the job. If you press the shift key you'll be able to use curly brackets!

Travis Hauch Fri,
12th Apr 2019
12:01pm

Thank you very much! I am running Server 2016 and didn't realize my Intel board was in IDE until I tried to run two SSD's in Raid0 and was only getting about 400MB/s. I switched to AHCI and was getting "Inaccessible boot device". I used the method described above and it's working now! 1100MB/s.

Crimson Sat, 18th
May 2019 6:42pm

@ bob and anyone else. To put this simply, this isnt for people with an Active raid array, its for people that have an incorrectly configured bios setting. If you have an active raid array (Raid 0 or some variant there of) this is not the solution for you.

Franco Deluliis
Wed, 16th Oct
2019 11:39am

Worked perfectly on a Dell Inspiron 15 7586. Came pre-configured in RAID mode and updated to 970 EVO Plus without the ability to get the Magician to function.

As soon as I completed the operation which took about 3 minutes, everything worked perfectly with no glitches or issues

Harry Barnes Sun,
3rd Nov 2019
6:19am

Hi Marc, you need to use one of those commands not both at once I think, hope that helps

edwin Thu, 14th
Nov 2019 6:24am

Saved my day. Alternative command is somewhat confusing. I

	<p>used bcdedit /set {current} safeboot minimal and bcdedit /deletevalue {current} safeboot</p> <p>Result is that W10 booted with sata settings set to AHCI, Happy!</p> <p>Thanks for sharing!</p>
<p>Geoffers Fri, 29th Nov 2019 3:28pm</p>	<p>Saved my bacon!</p> <p>I got my ageing (10yrs) Dell T5400 back into life using the full commands.</p> <p>Very many thanks!</p>
<p>John Mon, 23rd Dec 2019 9:09am</p>	<p>Just performed the procedure on an old Dell D630 fitted with a Kingston SSD that didn't have AHCI enabled.</p> <p>Went flawlessly and machine now seems to boot a little quicker and feels quicker in operation.</p> <p>Many thanks!</p>
<p>Adam Sun, 29th Dec 2019 10:29am</p>	<p>I just tried to do this but when I restarted it did not reboot in BIOS...</p> <p>And all of a sudden my password does not work for Windows....</p> <p>I am locked out...</p> <p>Any ideas?</p>
<p>Vignesh NALLAMILLI Mon, 30th Dec 2019 12:14pm</p>	<p>i tried it but its not booting into safe mode straight away its going into an endless loop of diagonising your pc and restarting untill i change it back to raid anyone please help</p>
<p>waren Sat, 4th Jan 2020 2:45pm</p>	<p>This worked for me! Thank you, thank you, thank you.</p> <p>At some point my intel RST drivers stopped, and I was unable to reinstall the drivers. I thought it was a windows 10 1903 build issue however my system was still on 1809. The problem was at the BIOS level. Some how either through a BIOS update or a dead battery the BIOS storage configuration changed from RAID to IDE.</p>

Without RAID enabled in the BIOS the RST drivers will not install. Also be sure to select the correct driver for your chipset. The newest drivers are not fully backwards compatible!

However even if I manually installed the RST x64 drivers first and then changed the BIOS to RAID the system would not boot.

I opened windows disk management utility and confirmed that the RAID 1 array was broken. Both disks appeared in the drive list, with one showing a warning due to addressing conflict (oh no)

Steps

- 1) installed the newest intel RST x64 driver that supports the chipset
- 2) set safeboot per above
- 3) enabled RAID in BIOS (was IDE)
- 4) booted to safemode
- 5) removed safeboot per above
- 6) checked that intel RST is running YES!
- 7) verify RAID 1 array (no idea how long the array was broken)

run windows disc management tool and verify RAID now appears correctly as 1 drive

After this Through some update cycle windows stealthily replaced all of the chipset and storage drivers with generic MS drivers.

I hope this helps someone else

esamett Fri, 31st
Jan 2020 12:14pm

to enter bios is a separate step. On my PC it is hitting "DEL" key during reboot.

Sat, 15th Feb
2020 10:36am

hi on powershell as admin

```
PS C:\WINDOWS\system32> bcdedit /set {current} safeboot  
minimal (ALT: bcdedit /set safeboot minimal)  
gives me
```

ALT: : The term 'ALT:' is not recognized as the name of a cmdlet, function, script file, or operable program. Check the spelling of the name, or if a path was included, verify that the path is correct and try again.

	<p>At line:1 char:43 + bcdedit /set {current} safeboot minimal (ALT: bcdedit /set safeboot ... + ~~~~ + CategoryInfo : ObjectNotFound: (ALT::String) [], CommandNotFoundException + FullyQualifiedErrorId : CommandNotFoundException</p>
<p>Sat, 15th Feb 2020 10:39am</p>	<p>on cmd C:\WINDOWS\system32>bcdedit /set {current} safeboot minimal (ALT: bcdedit /set safeboot minimal) Invalid command line switch: /set Run "bcdedit /?" for command line assistance. The parameter is incorrect.</p>
<p>Bob Sun, 16th Feb 2020 7:07am</p>	<p>As previous comment. on cmd C:\WINDOWS\system32>bcdedit /set {current} safeboot minimal (ALT: bcdedit /set safeboot minimal) Invalid command line switch: /set Run "bcdedit /?" for command line assistance. The parameter is incorrect.</p>
<p>Tonni Sat, 29th Feb 2020 9:37am</p>	<p>Awesome. This worked.</p>
<p>Gabriel Tue, 3rd Mar 2020 7:11am</p>	<p>After activating safe mode and changing the BIOS to AHCI, windows goes into automatic repair mode, could someone help me?</p>
<p>Rasiel Jimenez Sat, 14th Mar 2020 1:37pm</p>	<p>(ALT: bcdedit/set safeboot minimal). No space between bcdedit/set</p>
<p>Ronen Thu, 26th Mar 2020 11:46am</p>	<p>In the bios I get a notification saying that all data on the disk will be erased when changing from RST TO AHCI. (lenovo laptop)</p>
<p>Chuck Cooperman Sun, 29th Mar</p>	<p>Worked perfectly on a Dell XPS 13 9360 (i7, touchscreen, SSD).</p>

2020 12:24pm

Stupid question: Why doesn't the Windows automatic repair do this?