Switch Windows 10 from RAID/IDE to AHCI

Support Team - 2024-05-10 - Comments (49) - 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 (49)

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me
6 years ago
hi kids /set parametr in bcdedit return error i did it much simpler - to enable F8 key (safe mode) use command (In win 10 Build 1909 or leter) bcdedit /set bootmenupolicy legacy - in Windows control panel / system /device menager / remove the hdd drive with system and confirm reboot - ater reboot go to BIOS setins and set the AHCI mode save setings and exit bios - next reboot go to safe mode command prompt by F8 key - in safe mode command run chkdsk /f and confirm (i dont know if its nesesary but i did the step) - reboot system by CTRL+ALT+DEL - done sorry for my language (i don't know english)

Craig
5 years ago

Going to try it again. I'd suggest though, at least from what I experienced last night is to make sure you use an admin account that isn't linked to a MS account password online. Wouldn't boot into Safe Mode with Networking no matter what i did. I had to create an install disk on another computer, start to reinstall just to get to a cmd prompt. I wound up creating a password-less admin account on cmd line which enabled me to delete the safeboot mode value. Gonna try again tonight with the new account!

Bill Fairs

5 years ago

Worked a charm without any hiccups whatsoever, BRILLIANT!

Vignesh Iyer

5 years ago

There is one thing I want to ask about this. I checked in my Device manager and there isn't an option like IDE ATA/ATAPI controller aka I am not able to find any SATA controller or something. Would this technique work even if these controllers aren't present? Will it install these drivers automatically once I change mode? Model - Lenovo Ideapad S340, 1TB HDD + 256GB SSD. Basically, I want to install Ubuntu, which I am unable to do because of RST mode. And I don't want to lose Windows. Rest, I am convinced this technique works.

Relieved

5 years ago

It worked, so awesome, thank you so much. I struggled over this for hours and tried a bunch of things from other websites, none of which worked.

owen dawson

5 years ago

how to i start in bios once i reboot? system does boot in safemode

Vignesh Hariharan Iyer

5 years ago

Ok. I decided to bite the bullet and it worked for me. Though the BIOS gave some notification that my disk will be erased if controller mode is changed, still changed it to AHCI mode and booted according to the steps above and it worked. No data lost, everything works fine. This piece is a savior.

Anonymous

5 years ago

@Gianni. You need to conduct two steps. (1) change raid to non raid using above method and (2) then cloning the drive. Cheers Michael

Alex Gao

4 years ago

How could i can get the information about "RAID or AHCI" by use command

Eric

4 years ago

This works on Windows 11 as well on my Dell 1065G7 laptop.

Tom Billiodeaux

4 years ago

Thanks Leo F. I just installed new system using Asrock Z690 Pro RS motherbd and Intel M2. 36gb x 512gb. Also having another m2 with 1 TB, each in a 64gb/s slots. I could not get the Intel RST driver to install in W10 after it was loaded. Could not install the Intel Obtane drivers. However the system is working with full combination on the intel obtane m2 card...556 gb where W10 was installed. I can see all drives and formated each with W10. I do not see any need to perform Intel Obtane memory install because of your post. thanks

KG **Kenosha Computer Guy**

4 years ago

Worked PERFECTLY for a customer's self installed SSD/IDE non-SATA BIOS setup! Machine is now 100X faster!!!!!

Chris

7 years ago

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

7 years ago

this works, thanks I used the ALT commands

Jeffrey

7 years ago

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

7 years ago

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

7 years ago

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 keboard (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

7 years ago

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

7 years ago

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.

Franco DeIuliis

7 years ago

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

edwin

6 years ago

Saved my day. Alternative command is somewhat confusing. I used bcdedit /set {current} safeboot minimal and bcdedit /deletevalue {current} safeboot Result is that W10 booted with sata settings set to AHCI, Happy! Thanks for sharing!

Geoffers

6 years ago

Saved my bacon! I got my ageing (10yrs) Dell T5400 back into life using the full commands. Very many thanks!

John

6 years ago

Just performed the procedure on an old Dell D630 fitted with a Kingston SSD that didn't have AHCI enabled. Went flawlessly and machine now seems to boot a little quicker and feels quicker in operation. Many thanks!

waren

6 years ago

This worked for me! Thank you, thank you, thank you. 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. 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

6 years ago

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

Tonni

6 years ago

Awesome. This worked.

Rasiel Jimenez

6 years ago

(ALT: bcdedit/set safeboot minimal). No space between bcdedit/set

Anonymous

6 years ago

Worked perfectly on a Dell XPS 13 9360 (i7, touchscreen, SSD). Stupid question: Why doesn't the WIndows automatic repair do this?

Tom Williams
6 years ago
This article is a LIFE SAVER!!!!! I'm in the process of migrating a new Windows 10 installation from a 2TB HDD to a 1TB SSD. This is a new (refurbished) Acer desktop system that came with RST with Optane configured in the UEFI settings. So, I followed the steps to switch it to AHCI and Windows 10 now boots. I'm now off to re-clone the HDD to the SSD. :) For those having problems running the bcdedit commands, the "ALT" commands are supplied as *alternate* commands to use. So, either run the bcedit command that appears *before* the parentheses or run the command INSIDE the parentheses, but not the commands as shown above. For me, I ran these commands: bcdedit /set safeboot minimal (then I rebooted and switched to AHCI) bcdedit /deletevalue safeboot THANK YOU for writing such clear and accurate instructions! Peace...
Alex K.
6 years ago
Worked flawlessly, thank you!
Dillonharless
6 years ago
It's 2a.m. God bless you.
gamingpower
6 years ago
@Tom williams thank you very much for better explaining this tuto ! because it did not work because of ALT in the tuto! and i confirm : it wooooooooorks !!!!! :-D I have an asus Z97-A motherboard and Intel rapid storage technology is automatically activated in my bios and it automatically activates RAID and i didn't want to. I wanted AHCI. Every time i reselected AHCI, i had a blue screen crash ! Thanks to this great tuto i can finally! :) i did not believe it and yet it works perfect! I will see if the file transfers are accelerated in writing with my SSD samsung 850 evo 250go :) because before in RAID i never exceeded 80mb/s for files of 20 - 100go approximately when my ssd can go much higher...
Ingo
6 years ago
I cloned a normal HD onto an SSD, so the setting was at ATA in the bios. Windows ran fine with ATA setting booting from the SSD. I booted normally into Win10, set the safemode, rebooted and changed the BIOS setting to AHCI and booted. Win10 booted into safe mode. In there changed the setting back to normal boot and now its running in AHCI mode. Awesome! Thank you!
julio linarez
6 years ago
Este autor se merece una ceveza bien fria. Thank you a lot.
Salman
6 years ago
Worked like a charm! Shukria :)
Robert
6 years ago
PERFECT! I was trying to install Linux Mint 20 on a brand new laptop that was running Intel RST by default. Linux couldn't install while RST was enabled, your command prompts and easy instructions in the BIOS made this a breeze. Thanks!
mehmet
6 years ago
thank you so much
John Bengtson
6 years ago
Worked perfectly (used the shorter ALT commands) on my 12-year-old system that, with SSD and a few other upgrades along the way, is still running fine.
Robert Noonan
6 years ago
I have been trying to dual boot a Dell 5593 laptop with Windows 10 and Linux. If I set disks to RAID, Linux won't load. If I set it to AHCI, Windows won't load. This cure has at least got me part of the way there. I can now boot Win10 in AHCI mode. Now all I have to do is get the machine to boot into the Linux memory stick and take it from there. Thanks to all of you guys who take the time and trouble to help out the rest of us. Give yourself a pay rise.
Drew
6 years ago
Thank you - with your instructions I was able to install Ubuntu 20.04 on a new Dell XPS 17 9700
William
6 years ago
Thank you, this made my Ubuntu installation on my Dell Inspiron 5400 so easy, after i had almost broken my Windows lol Perfect tutorial
James
6 years ago
I used the alt and it worked completely fine, going from IDE to AHCI.
Anonymous

6 years ago
Sorry for the previous comment. It works perfectly!
Joseph Cepi
5 years ago
So AWESOME!!! Thanks! Had an "Oh Bugger!" moment when I realised that I had installed Windows 10 to a new SSD in IDE mode. Saved the above instructions to a txt file on the desktop for copy and paste into cmd prompt purposes, and it all worked a treat. This saved me a heap of time not having to re-install all over again. Many praises.
Anonymous
5 years ago
Thank you sooo much! This worked too well to be believed.
Miroslav Hristov
5 years ago
P.s. done that. Removed second part of command ALT And everything finished perfect! Thanks a lot for the livesaver trick!!!
Gkkirilov
5 years ago
Tried and worked on Windows11
Anonymous
3 years ago
Hi there all. 2023 here. Dell XPS 15 (9550) had this problem where Intel RST drivers were installed and a 500gb hdd + 32 gb ssd cache was put in raid mode. Ironically; intel stopped supporting this years ago but it was a headache and touch and go to get an upgrade to JUST a 1 tb ssd. additional notes 1) went into bios to break raid (nail biter; make sure you backup); disabled the cache drive and it did boot up to the old hard drive 2) used the technique above to enable ahci (go into safe/minimal boot mode) 3) went to bios to boot into ahci mode 4) disabled out of safe mode 5) cloned hdd => ssd 6) boot from ssd everything worked. Thanks a lot OP. I do see that the intel iastora.dll driver is still being used but since it doesn't cause any trouble, i'm not going to continue poking at this. What a hassle! This is what happens when technology goes obsolete in your lifetime.
Anonymous
3 years ago
Please note, even after breaking raid in bios; i kept the bios in raid mode until AFTER i rebooted and enabled the safemode / bcd hack