### (Approx. 737 words)

### Windows 11

By Joel Ewing, President Bella Vista Computer Club
president (at) bvcomputerclub.org

[www.bvcomputerclub.org](http://www.bvcomputerclub.org)
*Bits & Bytes*, September 2021

The Windows 11 official launch date is October 5, 2021. That means new PCs created after that date will probably come with Windows 11 installed. In addition, after that date, computers running Windows 10 will be eligible for a free upgrade to Windows 11 I**F THE HARDWARE IS SUPPORTED BY WINDOWS 11**.

Things are somewhat confused at this point because the PC Health Check tool that was supposed to check for hardware compatibility failed almost all older machines and was withdrawn. Yet, those who signed up for the Windows 11 Insider program to test the pre-release version of Windows 11 were able to install and run Windows 11 on many of those "unsupported" machines. Also, some CPUs that were not originally on the acceptable CPU list have since been added, even though some did not seem to support all the latest hardware security features. For greater details, see
[How the hell is Microsoft already screwing up Windows 11 this badly? | PC Gamer](https://www.pcgamer.com/how-the-hell-is-microsoft-already-screwing-up-windows-11-this-badly/)

Microsoft has also recently released (August 27) updated information on supported hardware [Update on Windows 11 minimum system requirements and the PC Health Check app | Windows Insider Blog](https://blogs.windows.com/windows-insider/2021/08/27/update-on-windows-11-minimum-system-requirements-and-the-pc-health-check-app/), but this list is probably still incomplete.

So basically, the current supported hardware information for Windows 11 from Microsoft lacks completeness. Microsoft, at this point, is not promising to provide updates, security-related or otherwise, if Windows 11 is installed on hardware that is not listed as supported. Some users have found that Windows 11 still appears to function on hardware not on the supported list – for now – but some attempting to update Windows 11 on an unsupported platform have received messages advising them they must revert and re-install Windows 10. So, it would appear that upgrading to Windows 11 on a PC hardware platform that is not on the officially supported list may appear to work after installation but does involve a risk that problems could surface with future updates.

The hardware requirements are related to support for Trusted Platform Module (TPM 2.0), Secure Boot, CPU support of HyperVisor-protected Code Integrity (HVCI), Virtualization Based Security (VBS), and Mode Based Execution Control (MBEC), and at least some of this seems related to a need to meet DoD security requirements. Unfortunately, MS does not go into details about which of these features are absolute requirements and which ones, if absent or down-level, might degrade security or stability but be no worse than running Windows 10 on the same platform. Thus, the real question for many with older hardware not yet on the "supported" list – as yet imperfectly answered – is not whether the hardware provides full support for all the new security features of Windows 11, but whether Windows 11 will run at least as reliably and securely as Windows 10 on the same hardware.

Another issue with older hardware is that MS wants vendors to have a more secure design for device drivers. This is good news for reliability but bad news for those with older motherboards or older external devices. Unfortunately, many vendors concentrate on drivers for current hardware and eventually stop supplying driver updates for their older device models. As a result, it's possible replacement could eventually be required for some of your older external devices like printers, scanners, etc. Initially, the older device driver code model will be supported under Windows 11, but at some point, only the new driver code design model will be allowed.

The good news is that an older PC running Windows 10 does not become obsolete or needs an immediate upgrade with the introduction of Windows 11. Update support will continue for Windows 10 until October 14, 2025. However, it does mean that if you are running hardware that does not officially support Windows 11, or external devices with device drivers the vendor doesn't update for Windows 11, you may need to start planning to replace that hardware before the Windows 10 End-of-Support in late 2025.

Change for the sake of change is a pain. Still, this change, and the possible forced hardware upgrade it may imply, does appear to be motivated by a desire to make systems that are more resistant to damage by malware and damage from poorly-written vendor device drivers. Anything that makes life more difficult for the creators of malware is goodness in the long run.