Know the warning signs of an overstressed PC

Smarter technology for all

Lenovo

The way you use your laptop or desktop at home can increase its risk of overheating and seriously affect its performance.

When your machine gets too hot, it can cause permanent damage. Dust and dirt are threats too; home and other spaces are not always as clean and well-ventilated as purpose-built, air-conditioned offices.

So, what's the best way to create a healthy environment for your PCs at home?

What's the problem?

Two of the main sources of heat are the Central Processing Unit (CPU) and the Graphics Processing Unit (GPU). The harder you ask them to work, the hotter they get, which means that running multiple, complex processes at once causes your machine to increase the heat.

Processors are designed with a feature known as "thermal throttling", in which they restrict performance to extend life and prevent overheating, similar to the rev limiter in cars. If the processor is running hot, the system will automatically lower its speed. This will affect the quality of video calls in particular, because it's a processor-intensive task.

All laptops and desktops are built with cooling systems consisting of fans, heat sinks and multiple heat vents. Of course, problems arise when the cooling unit is overstressed. So how can you tell if your PC is struggling with the heat?

- **You'll hear about it** when your computer begins to overheat. The fan kicks into overdrive trying to cool it down. This can be slightly audible on laptops and clearly audible on most desktops.
- **You'll feel it too**, especially if you're using a laptop. The fan will start to blow extra hot air from the computer's vents and the whole device might become warm to the touch.
- **Basic tasks take much longer** when your processor is struggling to cope. This can mean that programs take longer to load, or even cause fragmented images to appear on screen as the graphics card becomes sluggish.

Windows 10

The best devices in the world run Windows 10 Pro.

Easy things you can do to solve the problem:

Clean up the dust

Over time, the cooling vents can become clogged with dust. You can try clearing these out by blowing carefully or using a can of compressed air.

Cool the setting

Air conditioning is a great way to keep your room cool, and it also removes dust from circulation, which is a double win. If you can't control the room's temperature, you can at least move your machine out of direct sunlight.

Increase circulation

If your machine is next to other heat-producing units, or surrounded by clutter, it gets harder for the heat to disperse. Consider tidying up your cables or raising your laptop off your desk surface using a stand or cooling pad.

Reduce the workload

Close all unnecessary applications that are not in use. It's especially common to have multiple browser tabs open, which can place additional strain on your system.

Read up

Knowing what kind of cooling system your laptop or desktop has, even at high-level will help you avoid heat-related issues. Not all devices are the same inside, or built to the same standards.

ThinkPad X1 Carbon Gen 8

ThinkBook 15

Protect against overheating

Lenovo business PCs like ThinkPads, ThinkBooks and ThinkCentres have self-care designed in from first principles. We use US MIL-SPEC build standards that protect against extremes of heat, cold, dust and liquid splashes, as well as mechanical shock.

They are also built to perform reliably even under heavy workloads, using innovative designs and materials that disperse heat rapidly and effectively.

- **Lenovo ThinkPad laptops** are kept cool by our Intelligent Thermal Solution (ITS).
- **Lenovo ThinkCentre PCs** are equipped with Intelligent Cooling Engine (ICE) technology for ultra-efficient heat diffusion.
- **The Intel chips** in our latest machines use AI 'Dynamic Tuning' to help keep heat under control.

ThinkCentre M720 SFF

Lenovo System Update, available on all business PCs, will automatically check and update the system drivers and components required for ITS and ICE to function effectively. Make sure you install all the recommended updates.

You can also use Windows 10 Automatic Maintenance to optimize your computer overnight. It runs malware scans, defragmentation, system and app updates that keep your PC finely tuned for efficiency and reliability.

Find out more

Our high-performance Lenovo ThinkPad laptops are put through more than 200 quality checks, so they're made to stay cool under pressure. For more information about our latest machines, visit

www.lenovo.com/remoteworking

or contact your Lenovo Account Representative.