

# Can your PCs defend and repair themselves? Ours can.



Advanced hardware security and BIOS protection harden endpoints from attack and restore devices to a known good state.

## Microsoft Secured-core PC and Intel vPro® platform protections

ThinkShield is powered by the Intel vPro® platform: a collection of hardware-enhanced security features built for business and enabled by modern Intel® Core™ vPro® processors. Secured-core PCs boot up against a security checklist to verify integrity every time the device is turned on.



### Windows Hello

Frictionless authentication with biometric facial scanning and other passwordless modes.<sup>1</sup>

Windows Hello is 3x faster than typing in a password.<sup>2</sup>



### Encrypted SSDs

Built-in AES 256-bit self-encryption protects data at the hardware level.



### Intel® Software Guard Extensions

Creates secure enclaves within memory, protecting sensitive data being viewed by other apps.



### Intel® Threat Detection Technology and Accelerated Memory Scan

Uses the graphics engine for aggressive scanning while leaving the CPU free for user productivity.



### Intel® Hardware Shield

Locks the BIOS when software is running to protect against attacks during boot and operation.

ThinkShield BIOS can self-heal in the event of corruption for minimal disruption or downtime.



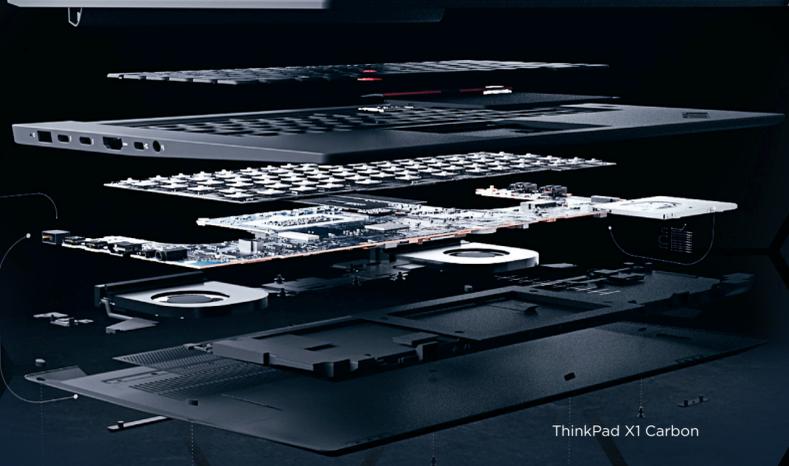
### Intel® Transparent Supply Chain

Tracks and reports the authenticity of PC components to ensure devices haven't been tampered with or compromised.



### Intel® Active Management Technology

Silicon-level platform management features for secure out-of-band access to continually manage and recover devices back to a healthy state.



ThinkPad X1 Carbon

## ThinkShield device protections



### PrivacyGuard

Filters the screen to restrict the field of view.



### Infrared camera

Integrated IR cameras enable biometric authentication and presence detection, which alert users to shoulder surfers and lock the device when the user is away.



### Webcam privacy shutter

Integrated physical webcam cover assures that the camera is not in use.



### Port protection

Smart Thunderbolt™ and USB protection prevent unauthorized data transfer by restricting hardware port access to only non-storage peripherals.



### USB secure hard drive

High-level, 256-bit AES security, as well as a keypad for entering an 8- to 16-digit password.



### ThinkEngine

A custom chip embedded within Lenovo Think devices that performs security functions that are completely isolated from the software.



ThinkPad X1 Carbon



## ThinkShield: Smarter hardware security

ThinkShield is Lenovo's security portfolio of hardware, software, services, and processes — fully customizable solutions to secure your critical data and business technology.

Lenovo recommends Windows 10 Pro for business, powered by the Intel vPro® platform.

Learn more at [www.lenovo.com/ThinkShield](http://www.lenovo.com/ThinkShield).

<sup>1</sup> To use Windows Hello with biometrics specialized hardware, including fingerprint reader, illuminated IR sensor, or other biometric sensors is required. Hardware-based protection of the Windows Hello credential.  
<sup>2</sup> Windows Hello: Discover facial recognition on Windows 10. <https://www.microsoft.com/en-hk/windows/windows-hello>



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Smarter technology for all

