

Lenovo  
**ThinkShield**

# Create a safe environment for learning

Lenovo ThinkShield is designed  
to defend your borderless campus



Smarter  
technology  
for all

Lenovo



# Cybersecurity in higher education

**In today's digital landscape, cybersecurity is an imperative safeguard for higher education institutions.**

As institutions increasingly rely on interconnected systems, online learning platforms, and vast repositories of sensitive student and research data, they become prime targets for cyberattacks.

Cybersecurity in higher education reflects a dynamic and evolving challenge, with threats ranging from phishing attacks targeting students and faculty to ransomware that can damage critical operations. Breaches can lead to the compromise of personal information, intellectual property theft, and disruptions to learning.

Effective cybersecurity measures both protect confidential data and uphold the institution's reputation, ensuring a safe digital environment conducive to learning, research, and innovation.



## Top challenges higher education institutions face

- 1 Compliance**

Higher education institutions face significant compliance challenges in safeguarding personal data, defending against cybersecurity threats, preserving research integrity, fulfilling reporting obligations, and navigating regulations.
- 2 Device proliferation and vulnerabilities**

Students and faculty work, learn, and connect on a variety of different devices — each with external security vulnerabilities such as network integrity, data privacy, and cybersecurity awareness that must be carefully managed to ensure a safe and effective learning environment.
- 3 Limited budgets**

Many institutions must work within strict budgets, which can often restrict their ability to increase cybersecurity measures.



# Education: Cybercriminals' top target

With more than 6.5 million malware encounters over a one-month period, the education sector accounts for nearly 80% of all reported enterprise malware attacks. That's eight times more than industry overall, with the second highest rate of attacks in retail and consumer goods.<sup>1</sup>

**80%** of reported malware attacks are against educational institutions. And it's only getting worse.

In the last year, the education sector has seen increases of<sup>2</sup>:

**26%**  
in malware in higher education alone.

**411%**  
in encrypted malware attacks over HTTPS.

**146%**  
in malware attacks against connected smart devices.

**\$3.65M** The average cost of a data breach to an educational institution is \$3.65 million.<sup>3</sup>





## The leading threats

Educational institutions face some of the same cybersecurity threats as other businesses and organizations, but they remain a top target for the wealth of data and personal information they often hold. Here are some of the top threats to higher education cybersecurity worldwide.



# 1

### Phishing attacks

Phishing is the practice of sending fraudulent emails or messages that appear to be from legitimate sources within the institution, aiming to trick recipients into revealing sensitive information like usernames, passwords, or personal details.

# 2

### Ransomware

Ransomware is the use of malicious software that encrypts an institution's digital files and systems. It then demands a ransom payment in order to regain access and prevent the release or deletion of sensitive data.

# 3

### Data breaches

Higher education institutions hold a wealth of information about their faculties and student bodies, making them a desirable target to exploit.

# 4

### Vulnerabilities

Failure to regularly update and patch software and systems can create vulnerabilities that cyberattackers can exploit.

# Lenovo ThinkShield protects your borderless campus

Lenovo devices running Windows 11 and powered by Intel vPro®, An Intel® Evo™ Design are built for what IT needs and educators and students want.

Lenovo devices feature built-in security enhancements like Intel® Hardware Shield, which brings advanced threat protections, application and data protections, and below-the-OS security features — all in addition to the layered protections from ThinkShield.



An Evo® Design



# Windows 11

## Supply Chain Assurance

This is a documented and auditable supply chain security program that lets you know your devices and their components are secure during manufacturing and through delivery to your end users with:

- **Trusted Platform Module** that certifies keys for protecting data
- **Traceability** of the platform owner and users
- **Auto-verify tool** checks for changes in hardware compared to original manufacturer design
- **Customer web portal** to provide easy access to files and certifications

With integrated layers of protection, Lenovo ThinkShield has you covered at every level.

## Below the OS

You get embedded endpoint security against today's threats, with features like:

- **ThinkShield Hardware Defense powered by Sepio.** Hardware asset risk management solution with complete visibility of assets and peripherals
- **Privacy protection.** Including webcam shutter, privacy guard, and shoulder surfing protection
- **Secure firmware.** Self-healing BIOS and HTTPS Boot to protect, detect, and recover platform firmware to a state of integrity
- **Secure packaging.** All shipments are secured in tamper-evident packaging
- **Secure disposal.** Secure Wipe and Secured-core PC to protect and delete data from drives without external tools
- **Tamper detection.** Bottom cover tamper detection switch to provide notification if a device has been tampered with

## OS-to-cloud security

ThinkShield implements best-in-class security innovations that address threats between the operating system and the cloud:

- **ThinkShield Threat Isolation powered by BUFFERZONE.** Online sandboxing of browser behavior that provides an additional layer of protection
- **Absolute Secure Access.** Reliable, resilient network connectivity for users to gain secure access to critical resources in the public cloud, private data centers, or on-premises
- **ThinkShield Data Defense powered by Cigent.** Protects data wherever it goes with encryption and access controls for any file
- **ThinkShield Passwordless MFA powered by Secret Double Octopus.** Universal multifactor passwordless authentication
- **Lenovo Patch.** Updates and patches BIOS, drivers, and third-party apps



# Ultimate protection backed by Intel® and Windows 11 security features

## Powerful, secure technology from Intel vPro® platforms

Higher education institutions everywhere need a purpose-built PC that can stop cyberattacks and empower IT to keep learning running smoothly anytime, anywhere. Intel vPro® delivers hardware-based security with advanced threat protections to help keep school data safe from cyberattacks. Additionally, Intel vPro® includes optimized wireless connections and intelligent processing, which means end users spend less time loading apps and have more time for learning. This integrated solution offers the broadest choice of designs and support for multiple operating systems.

## Performance

Lenovo laptops with Intel® Core™ processors running Windows 11 such as the ThinkPad P1 Gen 5 help eliminate lag so teachers spend less time getting students connected and can jump into great ideas, lessons, and activities faster.

## Security

Intel® Core™ processor-enabled devices, like the Lenovo X1 Carbon Gen 10i running Windows 11, are built to address the obstacles students face in online learning with built-in security capabilities.

## Stay ahead of evolving threats with Microsoft Windows 11

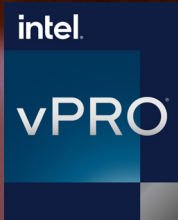
It's the most secure Windows ever. Devices running Microsoft Windows 11 feature advanced security solutions providing multilayered security features that augment the protection provided by Lenovo ThinkShield.

## Security out of the box

Out-of-the-box features include hardware-backed protection with TPM 2.0, isolation technologies for enhanced kernel protection (Virtualization Based Security) and HVCI (Hypervisor Code Integrity). The Microsoft Pluton security processor provides additional credential protection in supporting devices, and Secured-core PCs deliver extra protection for sensitive data.

## Protect yourself from evolving security threats

Stay one step ahead of cybercriminals with proactive protection against credential theft built in and Microsoft Defender SmartScreen's enhanced phishing protection. The Microsoft vulnerable driver block list comes enabled by default to protect against potential risky drivers.



# Lenovo ThinkShield: Elevating cybersecurity in higher education

With Lenovo ThinkShield, security is an integrated part of your institution's digital landscape, rather than an afterthought. We prioritize component integrity by implementing stringent standards. Our hardware is designed to ensure security from the chip up to every component.

ThinkShield can alleviate the IT workload and minimize downtimes with fully integrated and tested solutions. Leveraging cutting-edge predictive technology, we automate tasks that could otherwise pose a significant burden. Our open ecosystem, in collaboration with top-tier partners, is adaptable to the evolving security demands within higher education.

As a global technology leader, our experts customize solutions to cater to the unique requirements of education environments. The ThinkShield framework facilitates seamless access to a tailored blend of features that precisely address your institution's specific needs.



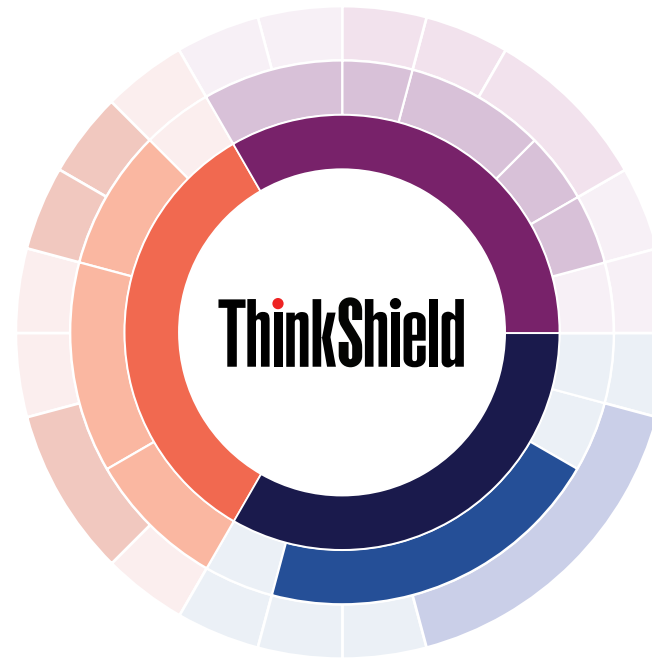
## Complete protection wherever learning takes place

### Security that adapts

Protect information by utilizing Lenovo ThinkShield's best-of-breed solutions in an open ecosystem of partners that evolves as security threats change.

### Technology you can rely on

In addition to the built-in features that expand on Windows 11 Pro security elements, all solutions are designed and deployed with trust and integrity at the forefront — from manufacture and beyond.



### Expertise you need

Get custom security services you can depend on, leveraging Lenovo's familiarity with technology to solve any resource gap. Ensure end-to-end security for your faculty and students in a borderless campus.

# Ready to safeguard your borderless campus?

Backed by the power of ThinkShield, the Lenovo team can help protect your campus with a multilayered approach to cybersecurity. With a flexible security strategy, you can armor your borderless campus to ensure faculty and students can work and learn without disruptions.

Learn more about how Lenovo can help defend your institution against cybersecurity threats. Visit [www.lenovo.com/Higher-Education](https://www.lenovo.com/Higher-Education).

## Sources

- 1 Microsoft Security Intelligence, "Global Threat Activity," August 2023
- 2 Edscoop, "Malware attacks on the rise in higher ed," April 2023
- 3 IBM Security, "Cost of a Data Breach Report 2023"

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