

YubiKey 5 Series: The Multi-Protocol Security Key

Streamline authentication for existing enterprise systems and pave the way to a passwordless future.

Relying solely on username and password security puts enterprise data at risk

Catastrophic security breaches top world headlines every day, and for good reason. A single corporate security breach costs an average of \$3.86M¹, and 81% of breaches are caused by stolen or weak passwords.² As a result, IT organizations cannot rely exclusively on passwords to protect access to corporate data. Adopting stronger employee and customer authentication is essential to avoiding risk and becoming the next target.

From smart card to a passwordless future

The YubiKey 5 Series is a hardware based authentication solution that provides superior defense against account takeovers and enables compliance. The YubiKey offers strong authentication with support for multiple protocols, including existing Smart Card authentication, and WebAuthn/FIDO2, the new standard enabling the replacement of weak password-based authentication. With the YubiKey, security is heightened with strong hardware-based authentication using public key cryptography. And the YubiKey is easy to use, fast and reliable and is proven at scale to significantly reduce IT costs and eliminate account takeovers.


The YubiKey 5 Series security keys deliver expanded authentication options

- **Strong Single Factor—Passwordless:** Replaces weak passwords with passwordless tap-n-go secure login.
- **Strong Two Factor—Password + Authenticator:** Adds a tap-n-go second factor for secure two factor authentication.
- **Strong Multi-Factor—Passwordless + PIN:** Combines tap-n-go authentication with a PIN, to solve high assurance requirements such as financial transactions, or submitting a prescription.

The YubiKey delivers strong authentication at scale

The YubiKey multi-protocol support streamlines authentication for existing systems while paving the way forward to a passwordless future.

- Authentication and cryptographic protocols supported include FIDO Universal 2nd Factor (U2F), WebAuthn/FIDO2, Personal Identity Verification-compatible (PIV) Smart Card, and OpenPGP smart card.
- Works across major operating systems including Microsoft Windows, macOS, iOS, Android, and Linux, as well as leading browsers.
- Available in a choice of form factors that enable users to connect via USB, NFC or Lightning connector.
- **New!** The YubiKey 5Ci offers multi-protocol capabilities, with both Lightning and USB-C connectors, to secure apps and services across all major platforms, including Apple devices.



YubiKeys deployed in:

9 of the top 10 global technology companies	4 of the top 10 U.S. banks	2 of the top 3 global retailers
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¹ 2018 Cost of Data Breach Study, Ponemon Institute Research Report ² 2017 Data Breach Investigations Report 10th Edition, Verizon

YubiKey: Proven, easy-to-use security that's trusted by the world's leading companies

Prevent man-in-the-middle attacks and eliminate account takeovers

Any software downloaded on a computer or phone is vulnerable for malware and hackers. The YubiKey is based on hardware with the authentication secret stored on a separate secure chip built into the YubiKey, with no connection to the internet so it cannot be copied or stolen.

Reduces IT costs

The YubiKey dramatically reduces the number one IT support cost—password resets—which cost Microsoft over \$12M per month.³

By switching from mobile one time passwords (OTPs) to YubiKeys, Google saw the following results.⁴

- Zero account takeovers
- 4x faster logins
- 92% fewer IT support calls



This graph illustrates how quickly Google reduced password support incidents after switching from OTP to YubiKey.⁴

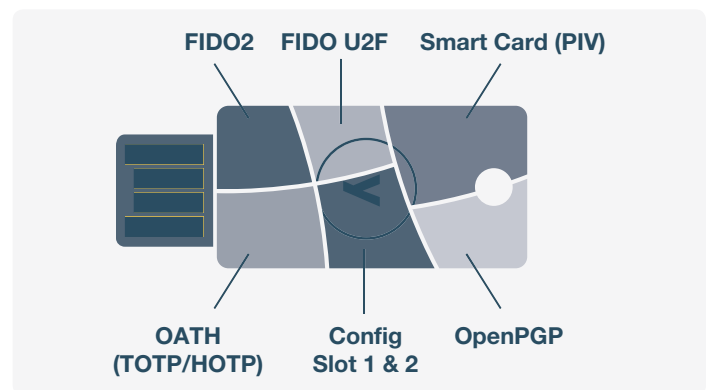
Easy to use, fast, and reliable

Users don't need to install anything and can use the YubiKey in minutes. And the YubiKey is reliable because it does not require a battery or network connectivity, so it's always on and accessible.

The YubiKey 5 NFC, YubiKey 5C, and YubiKey 5Ci fit conveniently on a keyring, while the YubiKey 5 Nano and YubiKey 5C Nano are designed to remain in the USB port. This ensures every YubiKey is easy to access and provides the same level of digital security.

Easy to deploy

IT can deploy YubiKeys in days, not months. A single key, through its flexible multi-protocol capabilities, can work out-of-the-box with hundreds of systems, both cloud and on-premises. This eliminates the need for costly integrations or separate devices for each system.



YubiKey capabilities: These functions are included in the YubiKey 5 NFC, YubiKey 5C, YubiKey 5 Nano, the YubiKey 5C Nano, and the YubiKey 5Ci security keys. Technical specifications are available at yubico.com.

Trusted authentication leader

Yubico is the principal inventor of the WebAuthn/FIDO2 and U2F authentication standards adopted by the FIDO alliance and is the first company to produce the U2F security key and a multiprotocol FIDO2/WebAuthn authenticator.

YubiKeys are produced in our offices in the USA and Sweden, maintaining security and quality control over the entire manufacturing process.



About Yubico Yubico sets new global standards for easy and secure access to computers, servers, and Internet accounts. Founded in 2007, Yubico is privately held with offices in Australia, Germany, Singapore, Sweden, UK, and USA. Learn why nine of the top 10 internet brands and millions of users in more than 160 countries use our technology at www.yubico.com.

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³ "Saying Goodbye to Passwords," Alex Simons, Manini Roy, Microsoft Ignite 2017 ⁴ Security Keys: Practical Cryptographic Second Factors for the Modern Web, Google Inc.