



YubiKey 5 Series

The multi-protocol security key that enables passwordless

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 \$4.45M,¹ with phishing and stolen or compromised credentials the two most common initial attack vectors. 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.

Phishing-resistant MFA with Smart Card/PIV and FIDO2/WebAuthn

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/PIV, and FIDO2/WebAuthn, 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—from left to right: YubiKey 5 NFC, YubiKey 5C NFC, YubiKey 5Ci, YubiKey 5C, YubiKey 5 Nano and YubiKey 5C Nano.

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), FIDO2/WebAuthn, 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 the USB, NFC or Lightning connector.
- The YubiKey 5C NFC offers multi-protocol capabilities with both USB-C and NFC capabilities for secure tap and go authentication on all the modern devices users love.
- Streamlines asset tracking and account recovery processes with enterprise attestation for custom programmed keys.
- Enforces compliance requirements and elevates security for PIN usage with the latest FIDO2 features such as Force PIN Change and Minimum PIN Length.
- Expanded storage capabilities for FIDO2 discoverable credentials and OATH one-time passwords, accommodating up to 100 passkeys and 64 OATH slots per application.



YubiKeys deployed in:

9 of the top 10 global technology companies

4 of the top 10 U.S. banks

5 of the top 10 global retailers

¹ IBM, 2023 Cost of a Data Breach Report

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

Eliminate account takeovers

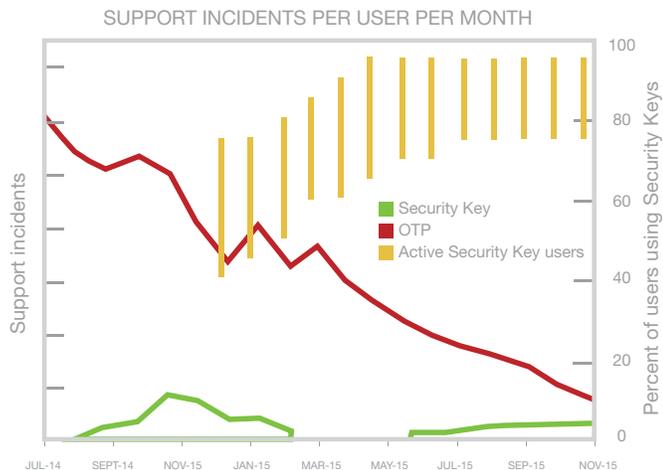
Any software downloaded on a computer or phone is vulnerable for malware and hackers. The YubiKey is based on hardware with the authentication secret stored on a separate secure chip built into the YubiKey, with no connection to the internet so it cannot be copied or stolen.

Reduce IT costs

The YubiKey dramatically reduces the number one IT support cost—password resets—which cost Microsoft over \$12M per month.²

By switching from mobile one time passwords (OTPs) to YubiKeys, Google saw the following results.³

- 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

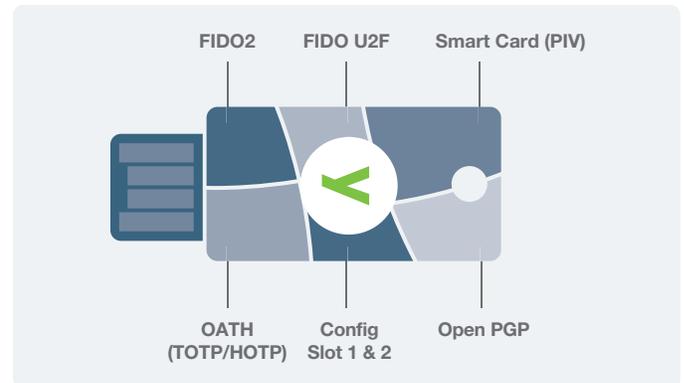
Easy to use, fast, and reliable

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 cellular connectivity, so it's always on and accessible.

The YubiKey 5 NFC, YubiKey 5C 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 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 FIDO2/WebAuthn 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.



² "Saying Goodbye to Passwords," Alex Simons, Manini Roy, Microsoft Ignite 2017

³ Google Research, [Security Keys: Practical Cryptographic Second Factors for the Modern Web](https://research.google.com/pubs/pub45668.html)

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