yubico

YubiKey FIPS

YubiKey Nano FIPS

YubiKey C FIPS

YubiKey C Nano FIPS

## YubiKey FIPS Series: FIPS 140-2 Validation Ensures Strong Security and Compliance

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 $3.62M[1], and 81% of breaches are caused by stolen or weak passwords.[2] As a result, IT organizations can't rely exclusively on passwords to protect access to corporate data. They have to adopt stronger employee and vendor authentication—or risk becoming the next target.

The YubiKey eliminates account takeovers

The YubiKey makes it easy to deploy strong, scalable authentication that eliminates account takeovers from phishing attacks. The YubiKey is a hardware-based solution that:

- Offers multiple authentication and cryptographic protocols including FIDO Universal 2nd Factor (U2F), Personal Identity Verification-compatible (PIV) Smart Card, and Yubico One-Time Password (OTP) to protect employee access to computers, networks, and online services with just one touch

- Works across major operating systems including Microsoft Windows, macOS, Android, and Linux, as well as leading browsers

- Available in a choice of four form factors that enable users to connect via USB or NFC
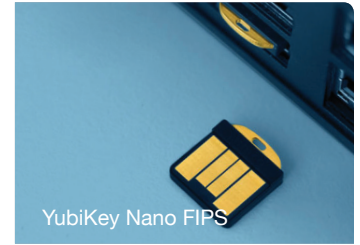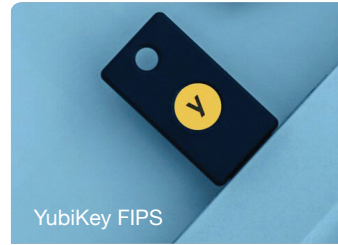
YubiKey has been the trusted choice of Google, Facebook, and Salesforce since 2012

Delivers strong multi-factor authentication: The YubiKey combines hardware-based authentication and public key cryptography to ensure strong authentication and eliminate account takeovers. Capabilities include U2F, an open authentication standard supported by the FIDO Alliance, as well as Smart Card functionality based on the PIV interface specified in NIST SP 800-73.

Reduces IT costs: After evaluating data gathered from a deployment of more than 50,000 YubiKeys in 70 countries, Google found that the device's ease of use and reliability reduced password support incidents by 92%. This saves the company thousands of hours per year in support costs.[3]

Provides easy, fast, and reliable security for employees: YubiKey hardware is reliable because it does not require a battery or network connectivity, so it's always on and accessible. Authentication is fast with a simple touch that is four times faster than SMS and mobile two-factor authentication.

Since deploying the YubiKey in 2010, Google has experienced:

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

YubiKeys deployed:

Google 190,000+

facebook 50,000+

salesforce 35,000+

[1] 2017 Cost of Data Breach Study, Ponemon Institute Research Report   [2] 2017 Data Breach Investigations Report 10th Edition, Verizon   [3] Security Keys: Practical Cryptographic Second Factors for the Modern Web, Google Inc.

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

Phishing defense for secure enterprise authentication

The YubiKey stores the authentication secret on a secure element hardware chip. This secret is never transmitted and therefore 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.[4]

By switching from mobile OTPs to YubiKeys, Google reduced password support incidents by 92% because YubiKeys are more reliable, faster, and easier to use.

SUPPORT INCIDENTS PER USER PER MONTH

Legend:
- Security Key
- OTP
- Active Security Key users
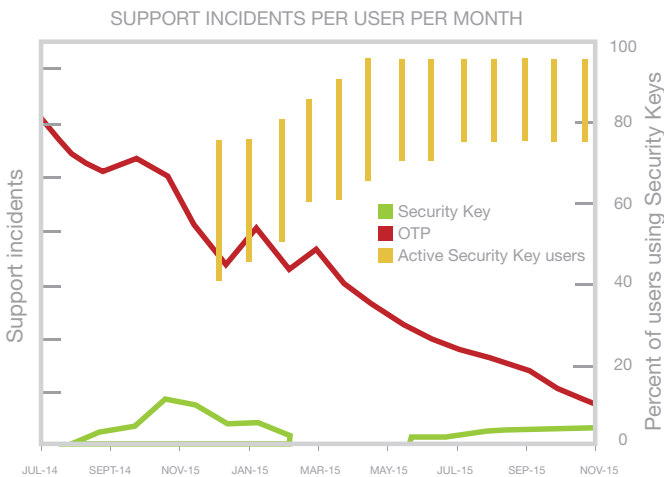
This graph illustrates how quickly Google reduced password support incidents after switching from OTP to YubiKey.[5]
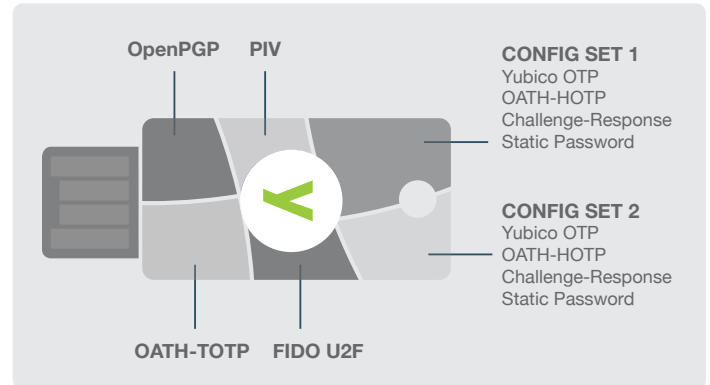
Easy to use, fast, and reliable

Users don't need to install anything—customers or employees simply register their own YubiKey, enter their username and password as usual, and plug in and tap the YubiKey when prompted.

The YubiKey FIPS and YubiKey C FIPS conveniently fit on a keyring, while the YubiKey Nano FIPS and YubiKey C Nano FIPS are designed to remain in the USB port. This ensures every YubiKey is easy to access and provides the same level of digital security. The YubiKey FIPS / Nano FIPS are crush-resistant and waterproof.

Easy to deploy

IT can deploy YubiKeys in days, not months. A single key can access several modern and legacy systems, which eliminates the need for separate keys or extra integration work.

OpenPGP   PIV

CONFIG SET 1
Yubico OTP
OATH-HOTP
Challenge-Response
Static Password

CONFIG SET 2
Yubico OTP
OATH-HOTP
Challenge-Response
Static Password

OATH-TOTP   FIDO U2F

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

Trusted authentication leader

Yubico is the the principal inventor of the U2F authentication standard adopted by the FIDO alliance and was the first company to produce the U2F security key.

YubiKeys are deployed in nine of the top 10 global technology companies, four of the top 10 US banks, and two of the top three global retailers.

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

FIPS 140-2 Validated

Protect your organization with the FIPS 140-2 (Overall Level 2, Physical Security Level 3) validated version of the industry leading YubiKey multi-factor authentication solution. The YubiKey FIPS Series enables government agencies and regulated industries to meet the highest authenticator assurance level 3 (AAL3) requirements from the new NIST SP800-63B guidance.

[4] "Saying Goodbye to Passwords," Alex Simons, Manini Roy, Microsoft Ignite 2017

[5] Security Keys: Practical Cryptographic Second Factors for the Modern Web, Google Inc.

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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