



# Protect the healthcare ecosystem with phishing-resistant MFA

Organizations across the Healthcare and Public Health (HPH) sector are facing a growing rate of cyberattacks—up in volume (69%) and complexity (67%) over the prior year.<sup>1</sup> According to a HIMSS cybersecurity survey, the most significant security incidents in healthcare can be attributed to either a phishing attack (45%) or ransomware (17%).<sup>2</sup> Most cyberattacks in healthcare focus on weaknesses in security controls, such as the low implementation of multi-factor authentication (MFA) across the organization (34%).<sup>3</sup> These unsecured touch points across the healthcare ecosystem are putting data—and patient lives—at risk.

## Prioritizing the human layer

Legacy authentication including username and passwords, and mobile-based authenticators such as SMS, OTP, and push notification, are leaving healthcare organizations exposed to modern cyber threats. Usernames and passwords are easily hacked, and mobile-based authenticators are highly susceptible to phishing attacks, account takeovers, SIM swaps and man-in-the-middle (MitM) attacks. SMS, OTP, and push notification apps also don't provide the best user experience.

Prioritizing the human layer is about challenging the drawbacks of conventional MFA and removing security responsibilities from your users, by eliminating passwords completely and moving to passwordless authentication.



## YubiKeys offer healthcare organizations phishing-resistant MFA and a bridge to passwordless

The YubiKey from Yubico provides strong phishing-resistant two-factor, multi-factor, and passwordless authentication at scale. The hardware authenticator protects the private secrets on a secure element that cannot be easily exfiltrated, preventing remote attacks. YubiKeys are the only solution proven to stop 100% of account takeovers in independent research,<sup>4</sup> and are deployed across various healthcare organizations including health plans and payers, health technology organizations, healthcare delivery organizations, and pharmacies to help them stay protected against modern cyber threats.



Research by Google, NYU, and UCSD based on 350,000 real-world hijacking attempts. Results displayed are for targeted attacks.

The YubiKey offers multi-protocol support enabling modern, strong authentication across legacy and modern applications and systems with support for FIDO2, FIDO U2F, OTP, SmartCard, and OpenPGP authentication protocols.

YubiKeys require no software installation, battery, or cellular connection, making them ideal for mobile-restricted environments and shared workstation environments that are common across healthcare ecosystems. A user can simply insert the YubiKey into a USB port and touch the key to authenticate.

YubiKeys also support tap-and-go authentication using NFC. When combined with a silicone wristband, the YubiKey can solve critical pain points around sanitation and efficiency.

For regulated healthcare environments, YubiKeys are also available in FIPS 140-2 validated form factors that meet the highest authenticator assurance level 3 (AAL3) requirements from NIST SP 800-63B.

With the YubiKey, healthcare organizations can implement FIDO2 passwordless, smart card passwordless, or a hybrid strategy depending on the infrastructure and use cases that need to be addressed. A common practice is to initially deploy YubiKeys where there are MFA gaps, such as users who can't use mobile authentication (e.g. call centers or clean rooms), remote workers or visiting physicians, and for privileged users with direct access to high-risk systems and applications. YubiKeys can also be deployed across the supply chain to secure third-party access as well as protect the integrity of products, IP, and the software supply chain. Additionally, the YubiKey can replace insecure mobile-based authentication methods with hardware-backed TOTP before being deployed organization-wide to address various risk profiles.

### Easily procure and distribute YubiKey authentication solutions at scale

Yubico helps organizations easily procure and distribute YubiKeys to employees wherever they work, anywhere in the world—at the office, in the hospital or lab, or even at home.

With [YubiEnterprise Subscription](#), organizations receive a service-based and affordable model for purchasing YubiKeys. This enables healthcare organizations to rapidly procure the latest YubiKeys in a way that meets their technology and budget requirements. This service also makes it easy to choose form factors, access customer support, and more.

With [YubiEnterprise Delivery](#), organizations receive turnkey service with shipping, tracking, and returns of Yubico products—all securely handled by logistics experts. It also helps with inventory management with delivery of keys as needed by the business.

### Choose the trusted authentication leader

Yubico is the principal inventor of the WebAuthn/FIDO2 and U2F authentication standards adopted by the FIDO Alliance. Yubico is also the first company to produce the U2F security key and a multi-protocol FIDO2 authenticator.

YubiKeys are produced in the USA and Sweden, which ensures a high level of security and quality control over the entire manufacturing process.

<sup>1</sup> Sophos, [The State of Ransomware in Healthcare 2022](#)

<sup>2</sup> HIMSS, [2021 HIMSS Healthcare Cybersecurity Survey](#)

<sup>3</sup> Ibid.

<sup>4</sup> Kurt Thomas and Angelika Moscicki, [New research: how effective is basic account hygiene at preventing hijacking](#)



## The YubiKey

is the **only solution** that is highly phishing resistant, and is proven to stop **100% of account takeovers** in independent research.<sup>4</sup>



### 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 FIPS Series

From left to right: YubiKey 5 NFC FIPS, YubiKey 5C NFC FIPS, YubiKey 5Ci FIPS, YubiKey 5C FIPS, YubiKey 5 Nano FIPS and YubiKey 5C Nano FIPS

**About Yubico** As the inventor of the YubiKey, Yubico makes secure login easy. As a leader in setting global standards for secure access to computers, mobile devices, and more, Yubico is also a creator and core contributor to the FIDO2, WebAuthn, and FIDO Universal 2nd Factor (U2F), and open authentication standards. For more information, please visit: [www.yubico.com](http://www.yubico.com).

**Yubico AB**  
Kungsgatan 44  
2nd floor  
SE-111 35 Stockholm  
Sweden

**Yubico Inc.**  
5201 Great America Pkwy, #122  
Santa Clara, CA 95054, USA  
844-205-6787 (toll free)  
650-285-0088