



Phishing-resistant MFA for Telecoms

Modern security with Microsoft Azure AD and YubiKey to bolster cyber security

Modern security is mission-critical

In a digitally-driven and always-connected world, telecommunication organizations are a critical infrastructure that consumers and businesses heavily rely upon everyday. [The 2021 SpyCloud report on Telecommunications Industry Credential Exposure](#) found that in exposed assets per company, telecommunications exceeds every other industry including high-risk sectors—finance, technology, health care and defense. A high rate of password reuse across multiple accounts,¹ stolen credentials and data breaches are the leading cause of account takeovers and security breaches.² Not only are breaches costly, but they damage brand reputation and customer loyalty.

To protect against the ever-evolving sophistication of cyber attacks, strong multi-factor authentication (MFA) needs to be a foundational part of your holistic security strategy. This ensures that no person or device is allowed into your network, unless vetted. However, not all MFA is created equal. Legacy authentication such as usernames and passwords, sms or email based authentication can be easily hacked. It is also important to consider usability, portability, and scalability of authentication solutions. Without that, it can result in MFA gaps, low user adoption, and an increased risk of being breached.

Safeguard people, technology, and data with the Yubico and Microsoft

Yubico and Microsoft are globally recognized leaders in cybersecurity assisting organizations on their journey to Zero Trust. Both Yubico and Microsoft are [FIDO Alliance](#) members and leading contributors to WebAuthn/FIDO2. Telcos should now have phishing-resistant MFA at the top of their security agendas.



The good news is that if you're a Microsoft user, either Azure, Azure Active Directory (Azure AD) or Microsoft 365, you can take advantage of native support for the YubiKey, the most secure form of phishing-resistant MFA.

With Microsoft and the YubiKey, telcos receive phishing-resistant, strong hardware-backed authentication that is simple to deploy across multiple applications as well as modern devices, with single sign-on (SSO) capabilities.

- Out-of-the-box, native integration for Microsoft 365 collaboration and productivity tools
- Easy and secure access to Azure AD protected solutions
- Authenticate to Azure AD FS with certificate-based authentication (CBA)
- Secure corporate system access to Microsoft 365 in-office, remote, in-store, and franchisee employees

To protect against modern cyber threats, Yubico offers the [YubiKey](#)—a hardware security key for phishing-resistant two-factor (2FA), MFA, and passwordless authentication at scale. It is the only solution proven to completely eliminate account takeovers in independent research.³ The YubiKey is helping telecom organizations secure their employees and customers against cyber threats, while driving regulatory compliance.

This modern security solution can bolster existing security approaches—if you are using mobile-based MFA, it can be complemented with the YubiKey, for an additional phishing-proof layer of protection. It also enables self-service password resets which reduces IT support costs. The YubiKey is simple to deploy, use and a single YubiKey can be used across both legacy and modern applications, services and devices, with multi-protocol support for smart card/PIV, OTP, OpenPGP, FIDO U2F and [FIDO2/WebAuthn](#) on a single key.

The impact of legacy authentication in the telecom industry

76%

of telecom employees are reusing passwords¹

61%

of breaches last year are caused by weak credentials²

\$4 million+

average cost of data breach for an organization³

Here are five ways the YubiKey protects telecom organizations from modern cyber threats:

1. Secure access to critical systems and data for millions of employees

Strengthening security for your in-office or remote workers and executives, or in-store employees and their accounts, is the first critical step towards a modern, strong authentication journey. Securing employee access to critical systems, applications, and both employee and customer Personal Identifiable Information (PII) without interrupting productivity is crucial to staying protected from modern cyber threats. Our joint solution ensures that only authorized people have access to PII data and critical systems and integrates seamlessly to provide secure authentication for [hundreds of applications and services](#).

2. Enhance the quality of customer service

Employees whether in third-party, franchisee or retail stores, are a reflection of your brand as they engage with customers. With Microsoft and the YubiKey your employees provide efficient customer service by not having to look down at their phone to authenticate. Instead, to authenticate users simply tap or insert then touch the YubiKey and, because the YubiKey arrives in a variety of form factors—including support for USB-A, USB-C, NFC, and Lightning port—authenticating to the full gamut of modern devices is simple, regardless of manufacturer or operating system. Additionally, YubiKeys with NFC capability have been effective when combined with wearables such as wristbands and lanyards, for fast and easy authentication.

3. Secure shared workstations

Employees in physical stores often share computers, kiosks, and point-of-sale (POS) systems, which requires a streamlined authentication method that factors in: speed, ease of use, reliability and clearly distinguishes each personnel. YubiKeys can be uniquely associated and are extremely portable, ensuring that only people who are authorized to access a specific system or application like Microsoft Office 365 will be able to. This protects against external cyber threats and even insider threats when implemented with prudent access policies.

4. Leverage modern MFA in mobile-restricted environments

Call centers and other mobile-restricted environments need authentication that is highly secure, compliant and simple to use. YubiKeys provide secure authentication where people can't, won't, or don't use mobile phones.

5. Drive compliance to industry regulations and authentication standards

In January 2022, the [U.S. Federal Communications Commission \(FCC\)](#) proposed new rules for the telecom industry: eliminate the mandatory seven business days waiting period for customers to be notified of a breach, expand consumer protections and require the mobile carrier to notify key organizations. Additionally, the [Office of Management and Budget \(OMB\) Memo M-22-09](#) provides actionable strategies, in response to the [Executive Order 14028](#) to strengthen cybersecurity across state, local, and corporate levels. The YubiKey with Microsoft Azure AD and CBA meets and surpasses the Zero Trust and phishing-resistant MFA recommendations outlined in the OMB Memo.



YubiKeys provide the gold standard for phishing-resistant MFA

YubiKeys meet you where you are on your MFA journey by acting as a bridge to a passwordless future, allowing you to leverage existing OTP authentication as you progress all the way to modern phishing-resistant authentication by using either FIDO2 or smartcard—all on one key. YubiKeys future-proof security and empower you to focus on providing exceptional quality of service to your customers. Embrace the YubiKey with confidence knowing that you have a solution to prevent account takeovers.



The YubiKey Family

The YubiKey is available in multiple form factors for desktop, laptops and mobile devices.

Talk to us: www.yubico.com/contact-us

¹ Spycload, [2021 Special Report Telecommunications Industry Credential Exposure](#)

² Verizon, [2021 Data Breach Investigations Report](#)

³ Google, [How effective is basic account hygiene at preventing account takeovers](#)