

YubiKey for YubiCloud Configuration Guide

With the YubiKey Personalization Tool



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Introduction

Yubico changes the game for strong authentication, providing superior security with unmatched easeof-use. Our core invention, the <u>YubiKey</u>, is a small USB and NFC device supporting multiple authentication and cryptographic protocols. With a simple touch, it protects access to computers, networks, and online services for the world's largest organizations.

Our innovative keys offer strong authentication via Yubico one-time passwords (OTP), FIDO Universal 2nd Factor (U2F), and smart card (PIV, OpenPGP, OATH) — all with a simple tap or touch of a button. YubiKeys protect access for everyone from individual home users to the world's largest organizations.

YubiKey for YubiCloud

You can use the YubiKey Personalization Tool application to configure your YubiKey for Yubico OTP, and then upload the AES key to the Yubico validation server. You can then add your YubiKey to your supported service provider or application.

When we ship the YubiKey, Configuration Slot 1 is already programmed for Yubico OTP and ready to use, and Configuration Slot 2 is not configured. Use this guide to overwrite Configuration Slot 1 or to configure Configuration Slot 2 as needed.

This document describes the following topics:

- Installing the YubiKey Personalization Tool
- <u>Configuring Your YubiKey for YubiCloud</u>

Getting Additional Help

For more information, and to get help with your YubiKeys, see:

- Support home page
- Documentation and FAQs
- Start a Support ticket



Installing the YubiKey Personalization Tool

This chapter describes how to download and install the YubiKey Personalization Tool for your operating system.

To install the YubiKey Personalization Tool

- 1. Download the latest version of the YubiKey Personalization Tool from the <u>Yubico website</u> for the operating system you are using.
- 2. To install the application, do one of the following:
 - For Windows:
 - a. To launch the installation wizard, click the yubikey-personalization-gui-x.x.x.exe file.

where *x*.*x*.*x* is the version for the file you downloaded.

- b. Complete the installation wizard.
 - For Mac OS X:
- a. To launch the installation wizard, and double-click the YubiKey Personalization Tool Installer-mac.dmg file.
- b. Complete the installation wizard.
 - For Linux:
- Build the YubiKey Personalization Tool on a Linux distro.
 TIP: For information on how to build the project and create the YubiKey Personalization Tool executable on your Linux platform, see the <u>Yubico Developers website</u>.
- b. Launch and complete the installation process for your Linux distro.



Configuring Your YubiKey for YubiCloud

This chapter shows you how to configure your YubiKey for Yubico OTP, upload the AES key to the Yubico validation server, and test your YubiKey configuration so that you can add your YubiKey to a YubiCloud supporting site or service.

In this Chapter

- About Yubico OTP
- <u>To configure your YubiKey for Yubico OTP</u>
- To test your YubiKey with the YubiCloud validation servers
- To add your YubiKey to a YubiCloud supporting service

About Yubico OTP

Each YubiKey has two slots. Configuration Slot 1 is used to generate the passcode when you touch the YubiKey button for between 0.3 and 1.5 seconds and then release. Configuration Slot 2 is used if you touch the button for between 2 and 5 seconds and then release.

When we ship the YubiKey, Configuration Slot 1 is already programmed for Yubico OTP and ready to use, and Configuration Slot 2 is not configured.

To test that your YubiKey is generating One-Time Passwords

- 1. Open a text editor.
- 2. Insert your YubiKey into a USB port of your computer, and touch the gold button. If you see ccccc in the text editor, then your YubiKey is generating OTPs, which means that you do not need to program your YubiKey for Yubico OTP.

To configure your YubiKey for Yubico OTP (or overwrite the existing configuration)

NOTE: You cannot use a FIDO U2F Security Key to configure for Yubico OTP.

- 1. Insert your YubiKey into a USB port of your computer.
- 2. Launch the YubiKey Personalization Tool. To do this:
 - a. On Windows:
 - Double-click the YubiKey Personalization Tool shortcut.
 - b. On Mac OS X:
 - Start the YubiKey Personalization Tool.



- c. On Linux:
- Start the YubiKey Personalization Tool.
- 3. Click Yubico OTP or Yubico OTP Mode, and then click Quick.
- 4. In the **Configuration Slot** group, select a configuration slot. (By default, **Configuration Slot 1** is used). The YubiKey Personalization Tool automatically generates the Yubico OTP Parameters.
- 5. If you want to regenerate the Yubico OTP Parameters, in the Actions group, click Regenerate.

YubiKey Personal	lization Tool							
Yubico OTP	OATH-HOTP	Static Password	Challenge-Response	Settings	Tools	About	Exit	
	Prog	gram in Yubico	o OTP mode - Qui	ck			YubiKey is inser	
Configuration	Slot					_	0	6
Select the config	guration slot to be p	programmed					<u> </u>	
Configuration	n Slot 1	Configuration S	lot 2					
Yubico OTP Pa	rameters (auto g	jenerated)					•	
Public Identity (6 bytes Modhex)	vv nk hd lc bb hj						
Hide values							Programming stat Slot 1 and 2 configu	
Private Identity	(6 bytes Hex)	•••••	••				Firmware Version	
Secret Key (16	bytes Hex)	•••••		•••••		Θ	4.2.7 Serial Number	
Actions							Dec: 4240087	
	figuration button to	program your YubiKey's	s selected configuration slot				Hex: 40b2d7	1
Write Con		Upload to Yubico	Regenerate	Back			Modhex:fondti	1
							Features Suppor	_
							Yubico OTP	
							2 Configurations	
							OATH-HOTP	
							Static Password	
							Scan Code Mode	
							Challenge-Response	ð
							Updatable	
							Ndef Universal 2nd Factor	
							yubic	

- To reprogram your YubiKey in standard Yubico OTP mode, in the Actions group, click Write Configuration.
 TIP: When the YubiKey configuration is successful, a message displays in the window confirming the configuration.
- To upload the AES key to the Yubico validation server, in the Actions group, click Upload to Yubico.
 NOTE: This also populates the corresponding fields on the Yubico AES Key Upload window with the values for reprogramming your YubiKey.
- 8. Type your email address, and place your cursor in **OTP from the YubiKey**.
- 9. Before you click Upload AES key, verify that your YubiKey prefix is correct:
 - a. Open a text editor and touch your YubiKey. The first twelve characters are the prefix (the YubiKey Public Identity).



b. In the Yubico AES Key Upload window, compare YubiKey prefix with the results from the text editor.

Type the CAPTCHA, and click **Upload AES key**.

yubico		
••	Yubico AES Key Upload	
Please note: It take validation servers. P prefix credentials ar credentials. Yubico	on about your newly personalized YubiKey. s up to 15 minutes for an uploaded identity to be lease wait at least 15 minutes before testing an e not guaranteed to have the same availability a reserves the right to invalidate any 'vv' prefix crv 'ubiCloud) at any time for any reason including it genuine YubiKey.	uploaded identity. 'vv' s production 'cc' prefix edential on the Yubico
Your e-mail address:		
Serial number:	4038439	
YubiKey prefix:	vvdvhgljldjr	
Internal identity:	66956f37b57d	
AES Key:	770697d458b65c7496fc4708ffef6	
OTP from the YubiKey	=	
Type the text Privacy &	IIG CAPTCHA-	

NOTE: Typically, you can test your YubiKey immediately. If necessary, wait approximately 10-15 minutes for all the corresponding databases to validate your OTP with the online Yubico OTP validation server.

To test your YubiKey with the YubiCloud validation server (demo.yubico.com)

• See our <u>demo server</u> to test your YubiKey.

To add your YubiKey to a YubiCloud supporting service

• Once your YubiKey is working with the demonstration server, you can add your YubiKey to your YubiCloud site or service. For more information about getting your YubiKey to work with a particular site or YubiCloud service, see the documentation on their website or contact their support department.