

# Windows Login Tool & YubiKey Config

---

Configuring the YubiKey and the Windows  
Login Authenticator

February 22, 2013

## Introduction

Yubico is the leading provider of simple, open online identity protection. The company's flagship product, the YubiKey®, uniquely combines driverless USB hardware with open source software. More than a million users in 100 countries rely on YubiKey strong two-factor authentication for securing access to computers, mobile devices, networks and online services. Customers range from individual Internet users to e-governments and Fortune 500 companies. Founded in 2007, Yubico is privately held with offices in California, Sweden and UK.

## Disclaimer

The contents of this document are subject to revision without notice due to continued progress in methodology, design, and manufacturing. Yubico shall have no liability for any error or damages of any kind resulting from the use of this document.

The Yubico Software referenced in this document is licensed to you under the terms and conditions accompanying the software or as otherwise agreed between you or the company that you are representing.

## Trademarks

Yubico and YubiKey are trademarks of Yubico Inc.

## Contact Information

### Yubico Inc

228 Hamilton Avenue, 3rd Floor

Palo Alto, CA 94301

USA

[info@yubico.com](mailto:info@yubico.com)

## Contents

---

Introduction.....	2
Disclaimer.....	2
Trademarks .....	2
Contact Information.....	2
1 Overview .....	4
2 Configuring the YubiKey .....	5
3 Installing the Windows Login Tool .....	9
4 Appendix A: YubiKey Configuration & Backup .....	15
4.1 Configuring Backup/Multiple YubiKeys .....	15
4.2 Applying Configuration Protection to YubiKeys .....	16

# 1 Overview

---

The Yubico Windows Login tool (available at the Yubico Website, here: <http://www.yubico.com/applications/computer-login/windows/windows-login/>) allows users to lock accounts on their Windows 7 and up PCs and prevent access without the correct YubiKey. This guide will detail how to configure a YubiKey to work with the Windows Login tool, as well as some best practices for backing up the YubiKey information, protecting a configured YubiKey and setting up the Windows Authentication tool.

## 2 Configuring the YubiKey

- 1) First, download and install the latest Cross Platform Personalization Tool for Windows from the Yubico Website at: <http://www.yubico.com/products/services-software/personalization-tools/use/> under the section "Cross platform personalization tools". There are a number of different installers for various operating systems – pick the installer for your operating system.

### Cross-Platform Personalization Tool

- Valid with any YubiKey
- Windows, Mac OS X and Linux
- Graphical user interface

» [User Guide](#)

» [Release Notes](#)

» [Windows: Binary installer](#)

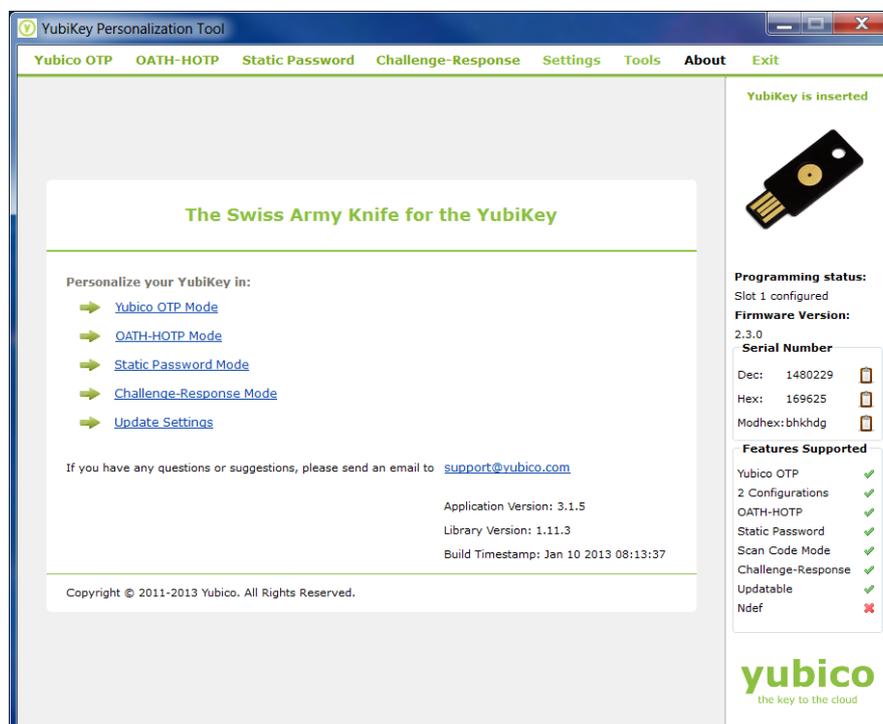
» [Mac OS X: Binary installer](#)

» [Ubuntu package](#)

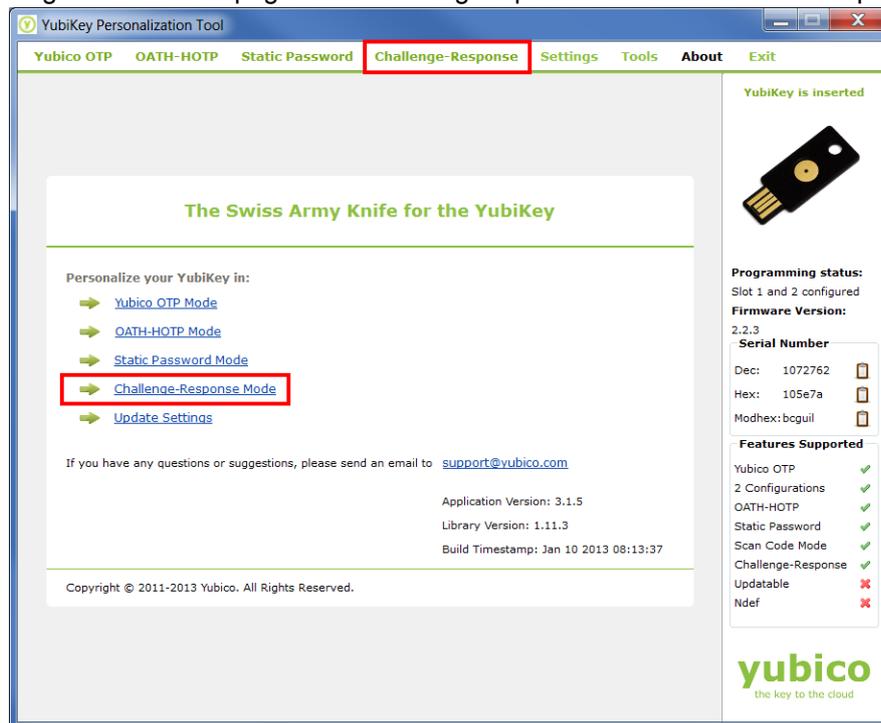
» [Feodora package](#)

» [Source code on GitHub](#)

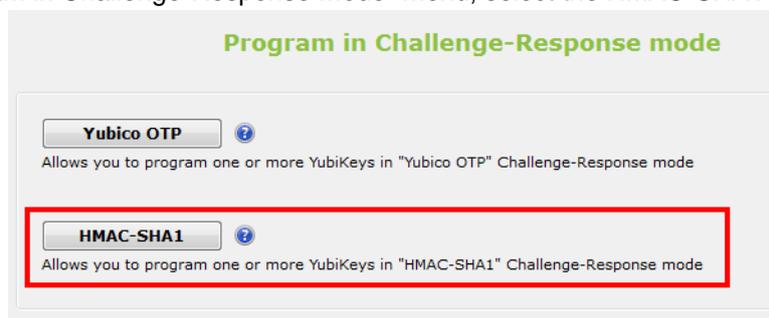
- 2) Once the Cross-Platform Personalization tool has been installed, insert a YubiKey in a USB port on the computer and launch the YubiKey Personalization Tool.

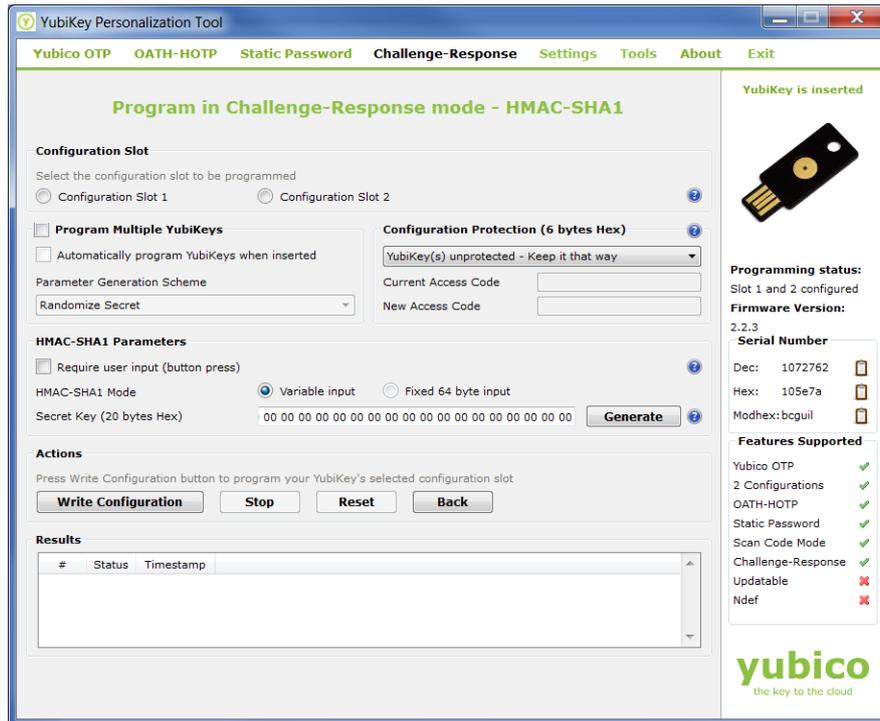


- 3) In the Cross-Platform Personalization Menu, open the "Settings" menu by clicking on the link "Update Settings" on the main page or the "Settings" option from the menu at the top.



- 4) In the "Program in Challenge-Response mode" menu, select the HMAC-SHA1 mode option.





- 5) Locate the Configuration Slot section and select the “Configuration Slot 2” option



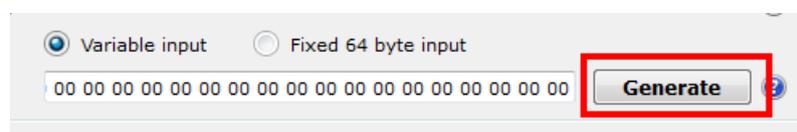
- 6) Locate the HMAC-SHA1 Section. In that section, ensure the checkbox “Require User input (button press)” is not selected.

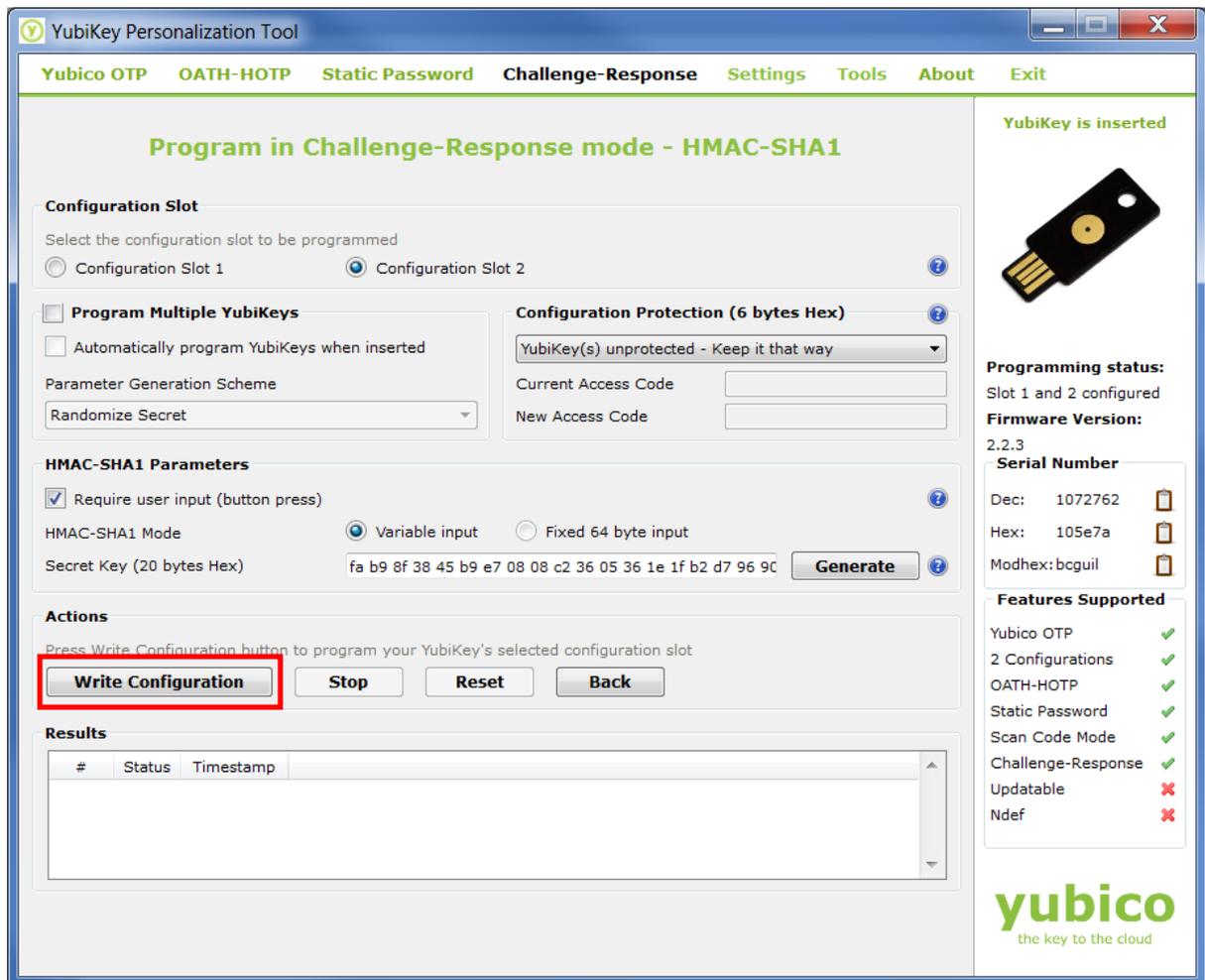


- 7) In the HMAC-SHA1 section, for the HMAC-SHA1 Mode, select the “Variable input” option.



- 8) Click the “Generate” button in to the right of the field labelled “Secret Key (20 bytes Hex).  
**Please Note:** This secret key is essential for making backup to configured YubiKeys. Record this value in a safe location for generating backup or secondary YubiKeys for the Windows Login Tool.





9) In the Actions Section, click the "Write Configuration" button. This will configure the YubiKey for the Windows Login Tool.

Please see Appendix A for steps to create multiple YubiKeys for the same Windows Login account as well as how to enable Configuration Protection.

### 3 Installing the Windows Login Tool

---

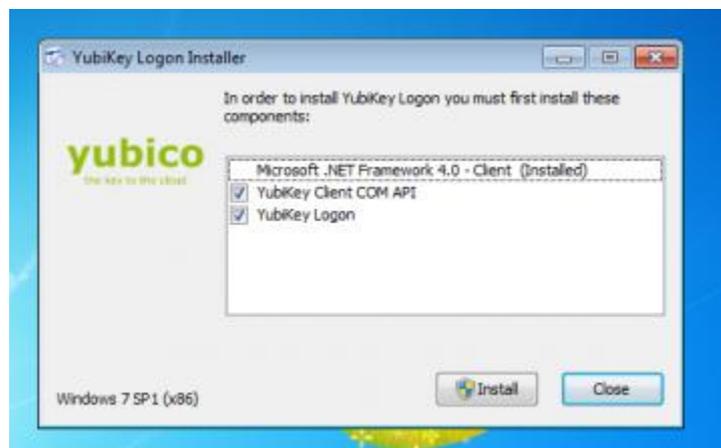
**Please note:** Administrator privileges and an internet connection are necessary to be able to install the application. A reboot to the computer is required after the installation

1. [Click here to download the YubiKey Logon installation file.](#)

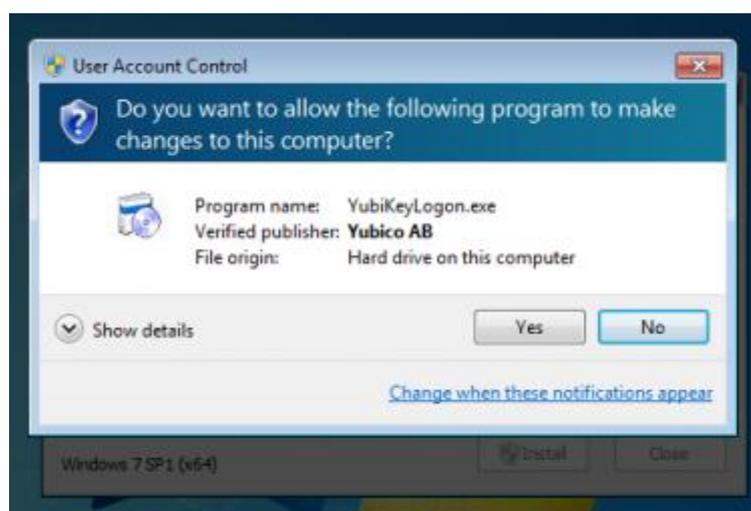
The installation is the same for both Windows 7 32 bit and 64 bit editions.

2. Open the installation file and click “Install”

The Installer for the Windows Login will automatically download and install the necessary supporting components.



3. Press “Yes” in the User Account Control window

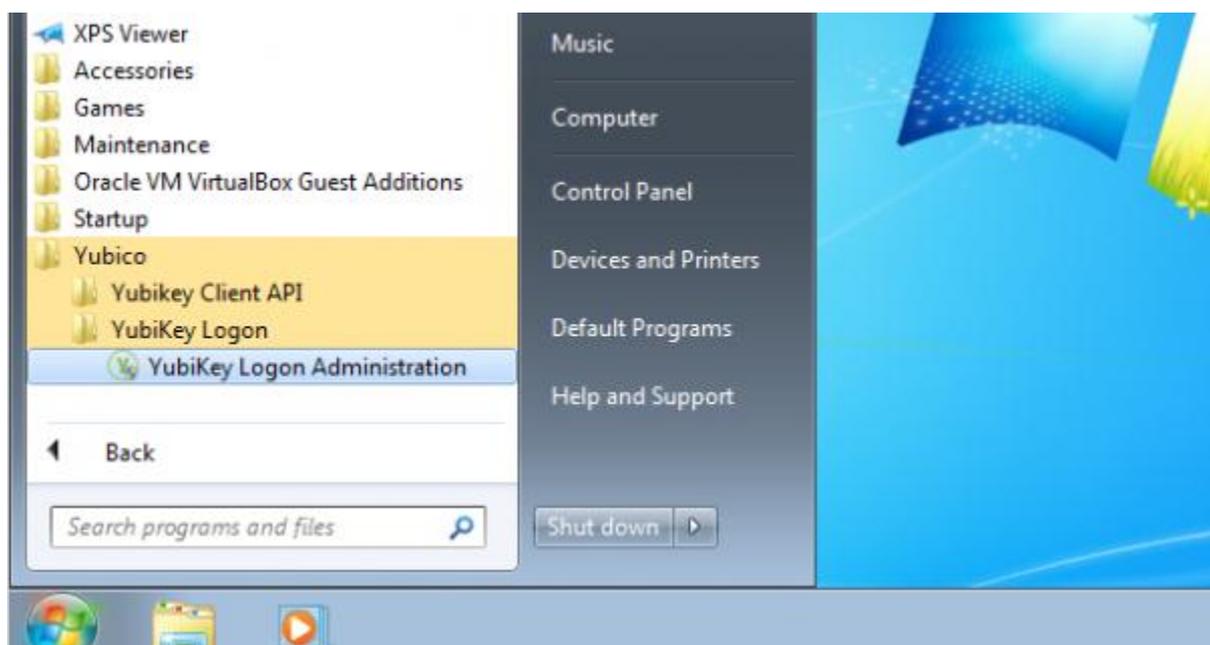


4. Follow the setup wizard to install the Windows Login Tool and components.

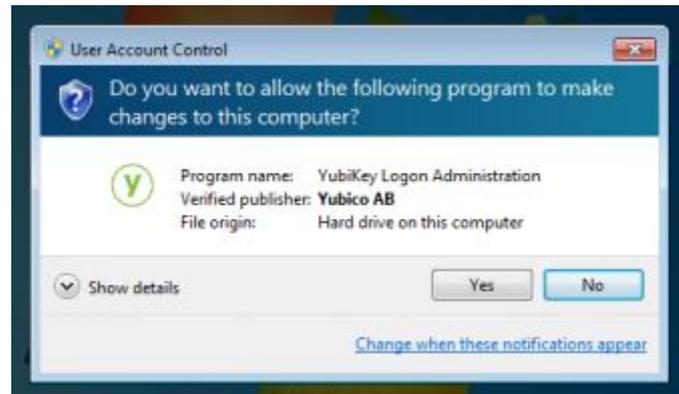


5. Launch the YubiKey Logon Administration, which can be accessed from the start menu

The application will be located under the folder Yubico → YubiKey Logon → YubiKey Logon Administration.



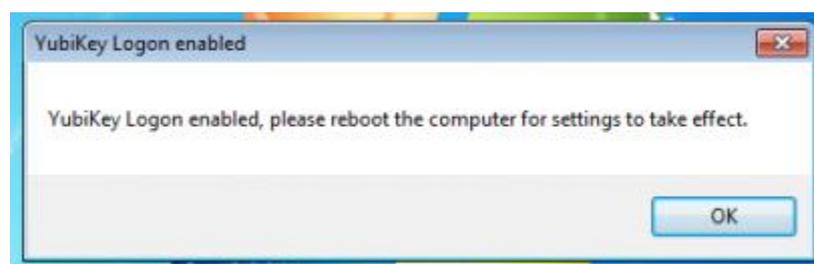
6. Press “Yes” in the User Account Control window



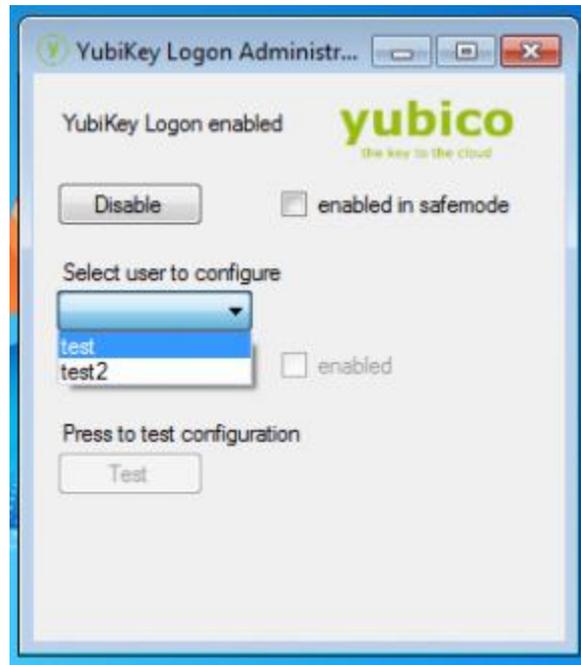
7. Press “Yes” to enable YubiKey logon for your computer



8. Confirm the login dialog – a reboot will be required after associating a YubiKey with a Windows Account.

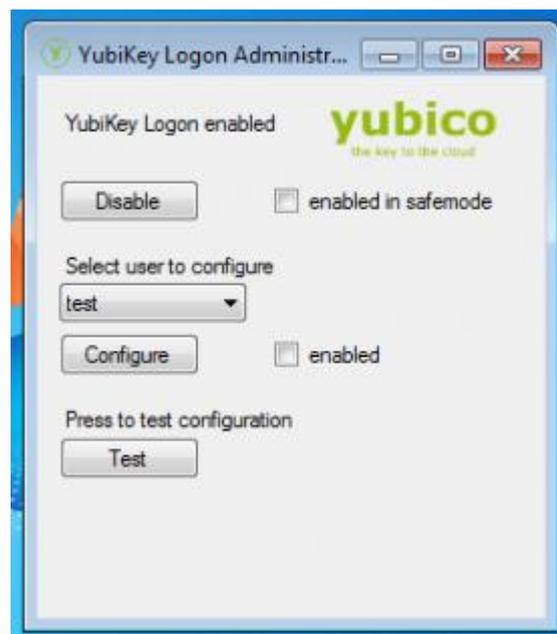


9. Select the Windows Account to configure from the drop down menu in the YubiKey Logon Administration window

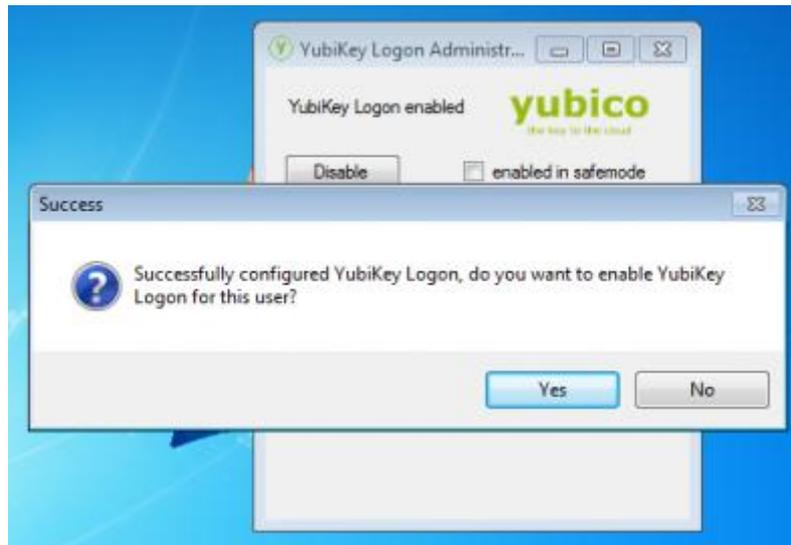


10. If not already done so, insert the YubiKey in the computer via a USB port.

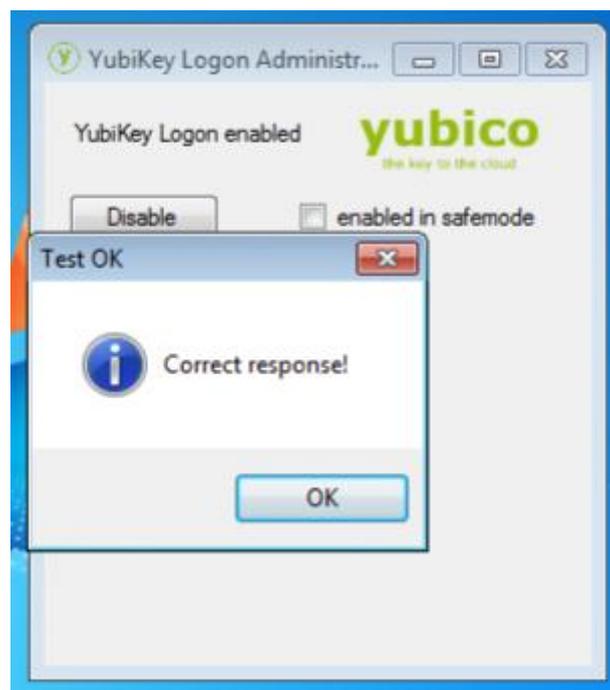
11. Press the button labeled "Configure"



12. Press “Yes” to enable the YubiKey Logon for the chosen user

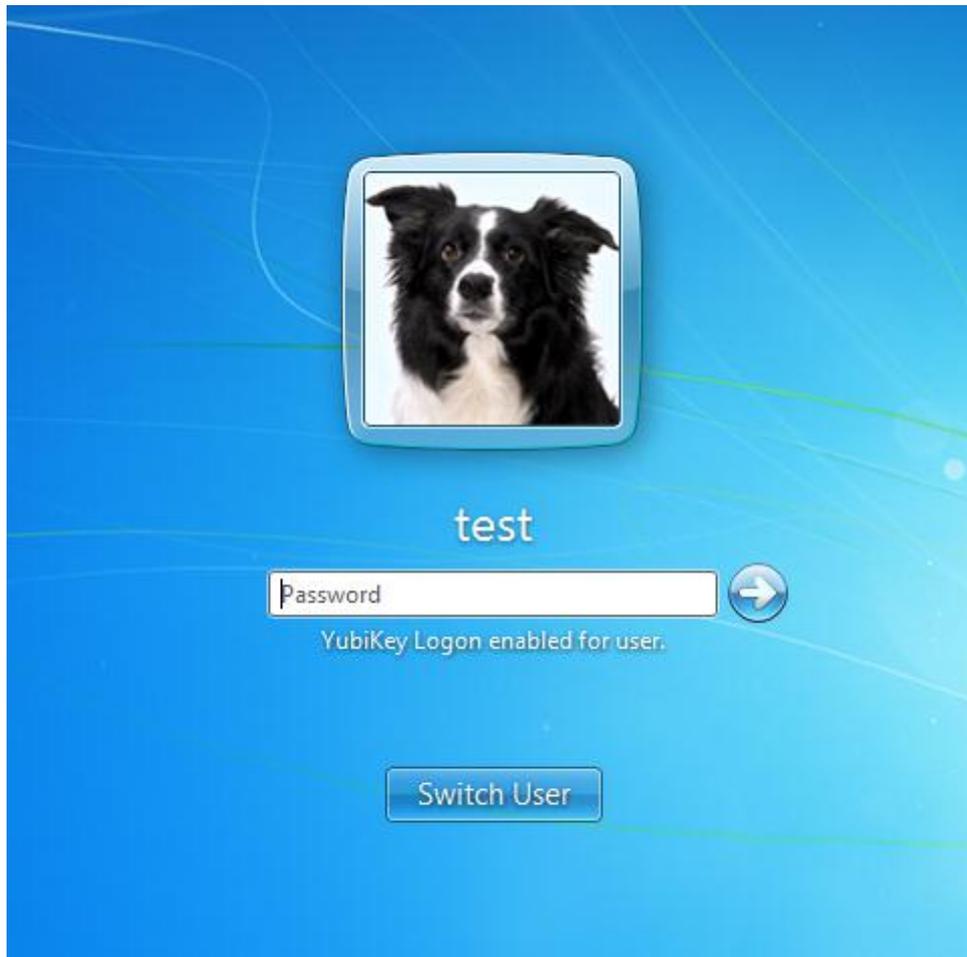


13. Optionally, clicking the button labeled “Test” will perform a login test with the YubiKey



14. Once the YubiKey is configured, reboot your computer

15. Log on to the Windows Account using the username and password with the YubiKey inserted in a free USB port.



## 4 Appendix A: YubiKey Configuration & Backup

---

### 4.1 Configuring Backup/Multiple YubiKeys

For Multiple YubiKeys to work with the same Windows Authentication Login, they need to be configured with the same Secret Key. It is recommended that the secret key value is recorded when configuring a YubiKey for use with the Windows Authentication Tool.

To use an existing Secret Key to create a backup, configure the YubiKey as normal, except when creating the secret key, do not click the “Generate” button. Instead, type the secret key you wish to use directly into the Secret Key field. This will create a new YubiKey which will work as a backup to an existing YubiKey/Windows Login.

To configure multiple YubiKeys with the same secret key (so they will all work with the same Windows Login), first configure the first YubiKey as normal. However, before pushing the “Write Configuration” button, follow these steps:

- 1) Locate the “Program Multiple YubiKeys” Section.
- 2) Check the box labelled “Program Multiple YubiKeys”
- 3) Check the box labelled “Automatically Program YubiKeys when inserted”
- 4) Locate the Menu “Parameter Generation Scheme” and set it to “Same Secret for all Keys”
- 5) Click the Write Configuration Button to program the first YubiKey.
- 6) Once the YubiKey is configured, remove it and insert the next YubiKey. It should be programmed automatically.
- 7) Repeat step 6 until all the YubiKeys are programmed, then click the “Stop” Button.

This method creates multiple YubiKeys with the same secret and can be used interchangeably with the each other for the Windows Login tool.

## 4.2 Applying Configuration Protection to YubiKeys

To lock a YubiKey configuration slot so that it cannot be reconfigured without proper authorization, users can add Configuration Protection which prevents the YubiKey configuration slot from being configured without the proper access code.

To apply Configuration Protection to a configuration slot first configure the first YubiKey as normal. However, before pushing the “Write Configuration” button, follow these steps:

- 1) Locate the “Configuration Protection” Section.
- 2) Locate the Menu “YubiKey(s) unprotected – Keep it that way” and set it to “YubiKey(s) unprotected – Enable Protection”
- 3) The “New Access Code” field below the menu should become active.
- 4) In the “New Access Code” field, enter in a 12 digit, numeric access code. **Record this code in a safe location as the YubiKey configuration slot will not be able to update its configuration without it.**
- 5) Continue to configure the YubiKey as normal.

To change the configuration of a YubiKey configuration slot protected with an Access Code, follow these steps:

- 1) Locate the “Configuration Protection” Section.
- 2) Locate the Menu “YubiKey(s) unprotected – Keep it that way” and set it to “YubiKey(s) protected – Keep it that way”
- 3) The “Current Access Code” field below the menu should become active.
- 4) In the “Current Access Code” field, enter in the 12 digit, numeric access code set for that YubiKey configuration slot.
- 5) Continue to configure the YubiKey as normal.