

VINCSS OVPN CLIENT

USER MANUAL

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VERSION TRACKING

Version	Date	Writer	Position	Contact	Note
2.0	31/03/2023		Product Department, VinCSS		Update the software interface



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REFERENCES **38**



I. INSTALL AND CONFIGURE VINCSS OVPN CLIENT SOFTWARE

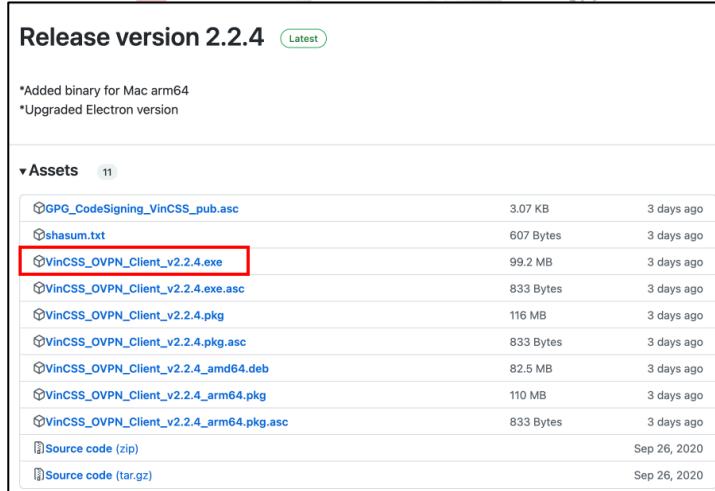
VinCSS OVPN Client software is compatible with following operating systems:

- **Windows 11.**
- **Windows 10.**
- **Windows 8.**
- **Windows 7.**
- **macOS Ventura.**
- **macOS Big Sur.**
- **macOS Catalina.**
- **Ubuntu 20.04.**
- **Ubuntu 18.04.**

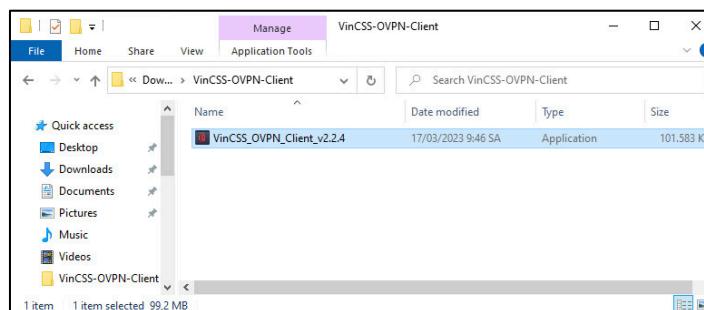
I.1. Windows

I.1.1. Install VinCSS OVPN Client

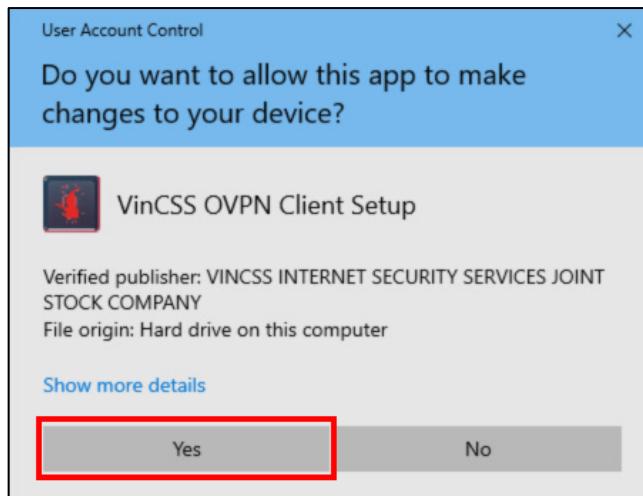
- Download VinCSS OVPN Client version for Windows OS at:
<https://github.com/VinCSS-Public-Projects/VinCSS-FIDO2-OVPN-Client/releases>.



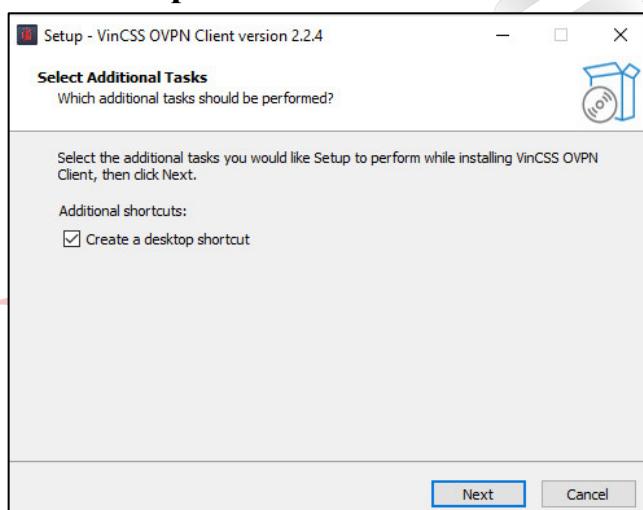
- Run **VinCSS OVPN Client.exe** file.



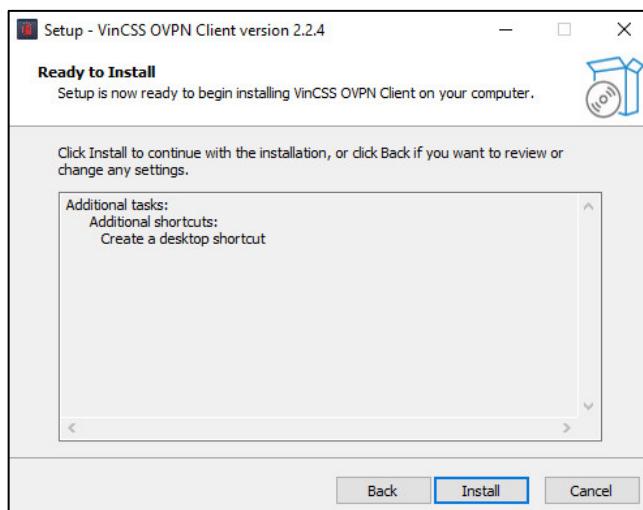
- The pop-up window would show a valid installation package with information on the supplier “VINCSS INTERNET SECURITY SERVICES JOINT STOCK COMPANY”. Click Yes to continue.



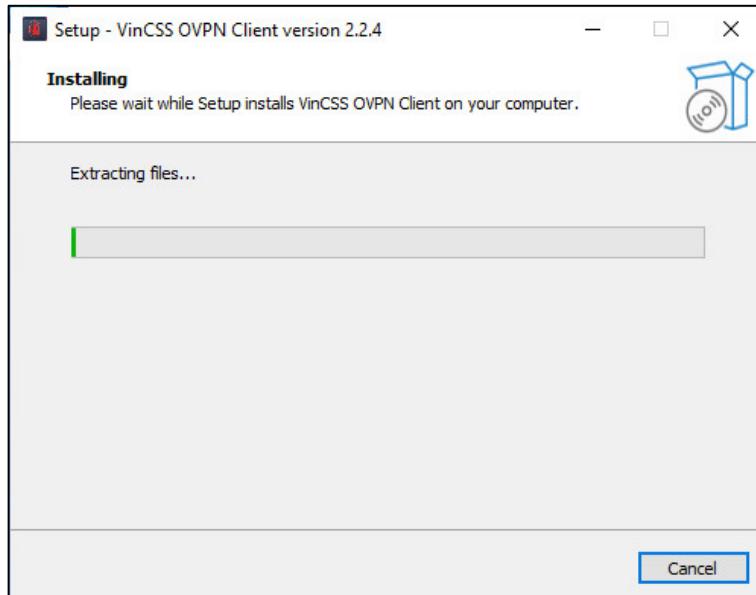
- Select **Create a desktop shortcut** and click **Next** to continue.



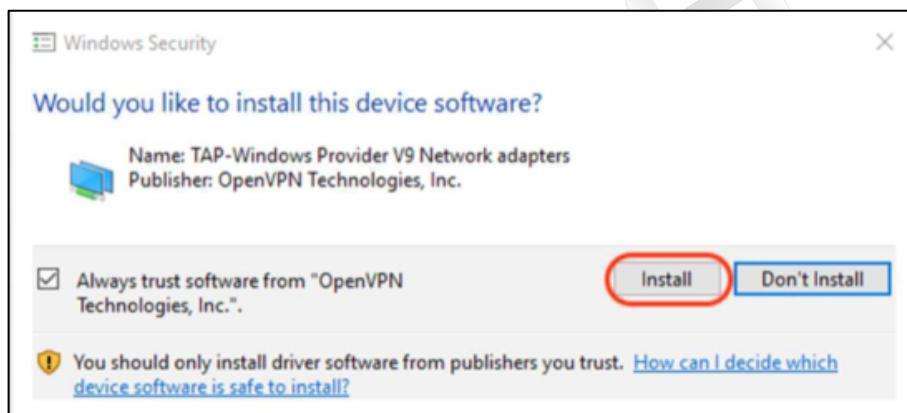
- Click **Install** to start installing the software.



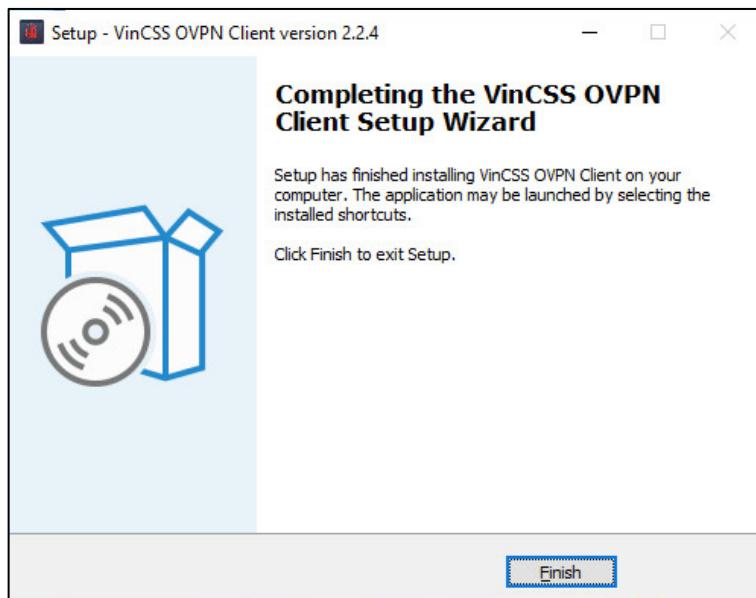
- Installing software.



- Click **Install** to run tap adapter installation (*if required*).

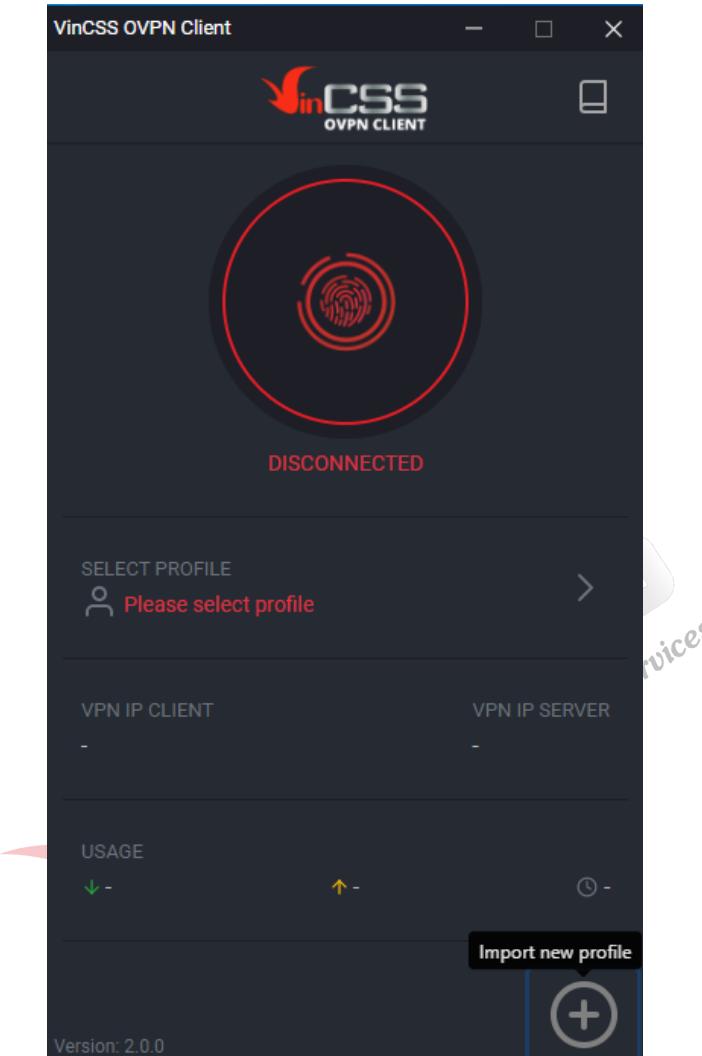


- Click **Finish** to complete the installation of VinCSS OVPN Client software.

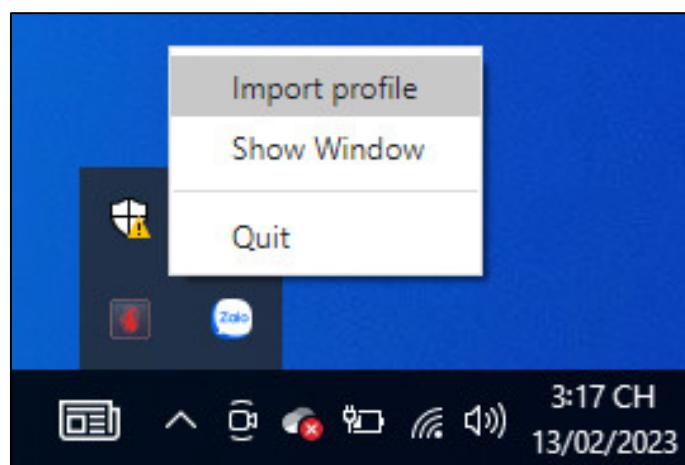


I.1.2. Configure VPN connection

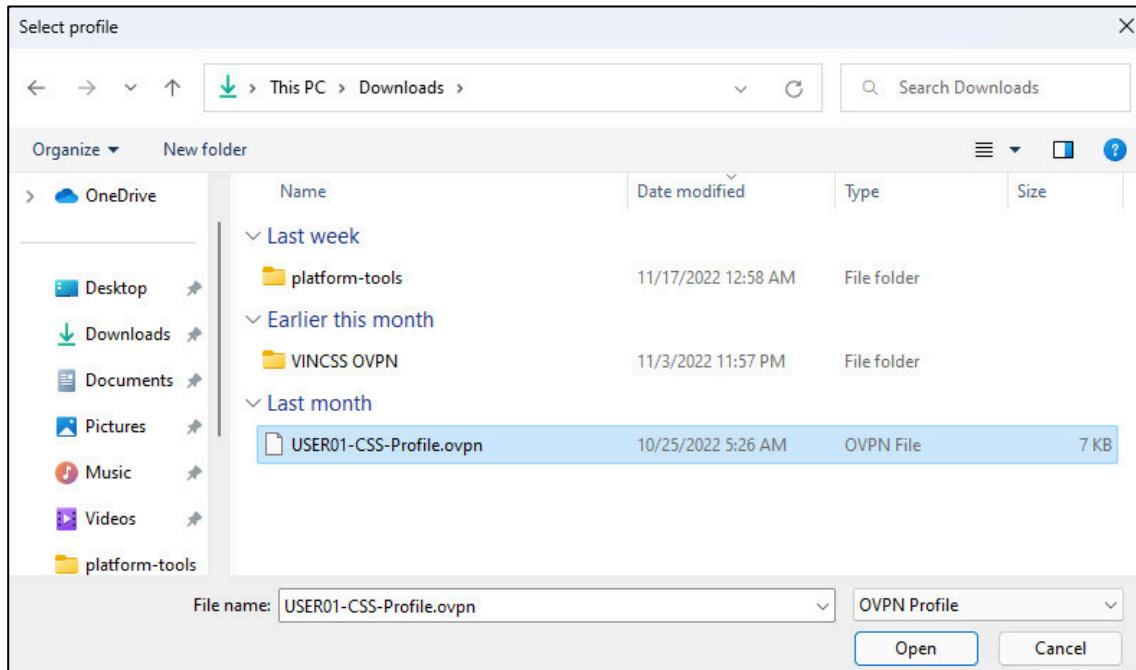
- Open VinCSS OVPN Client software installed in the computer. On the main screen, click (+)-icon to add a new profile.



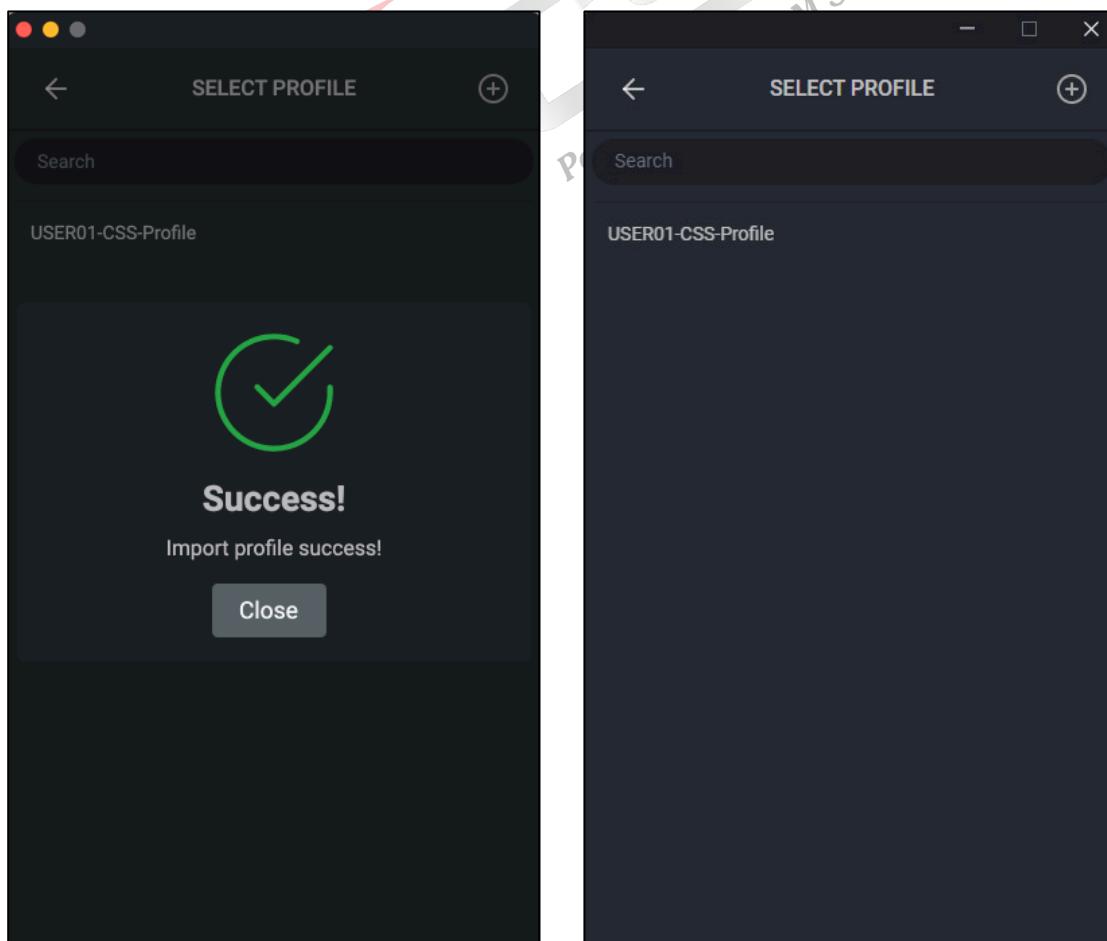
- Or right-click on **VinCSS OVPN Client** icon on the taskbar, select **Import profile**.



- Select the profile sent by administrator (*file .ovpn*) and click **Open**.



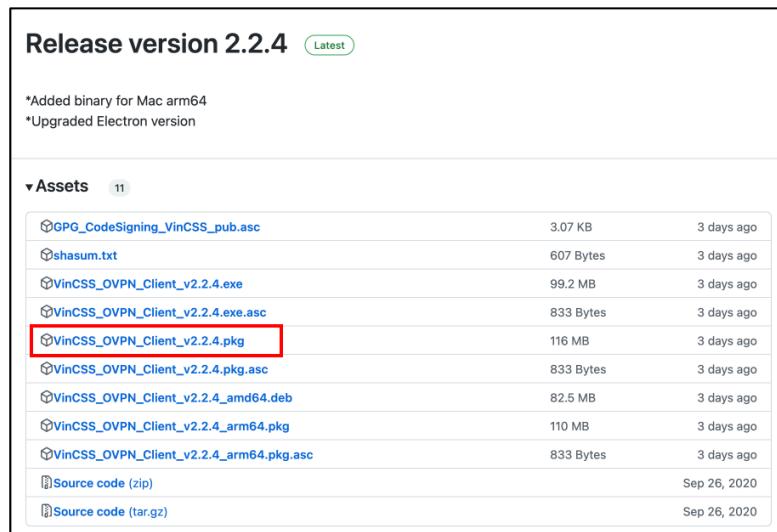
- Profile is added successfully. Click **Close** to close the notification window.
Screen shows profile name on the list.



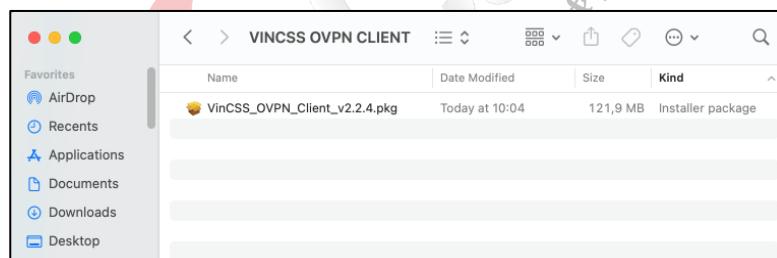
I.2. MacOS

I.2.1. Install VinCSS OVPN Client

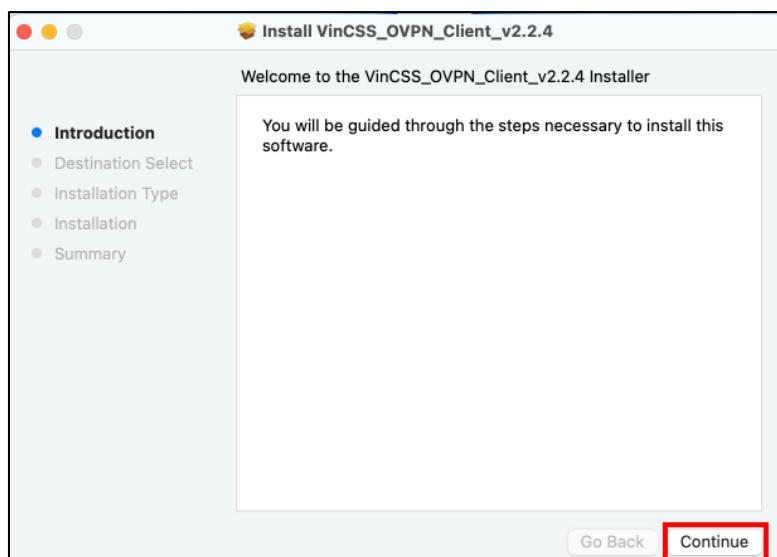
- Download VinCSS OVPN Client version for macOS at: <https://github.com/VinCSS-Public-Projects/VinCSS-FIDO2-OVPN-Client/releases>.



- Run VinCSS OVPN Client.pkg file.



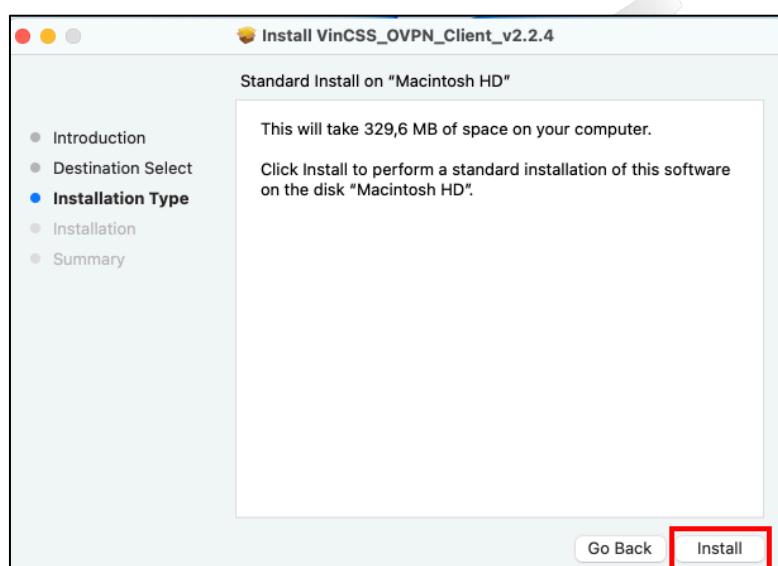
- Click Continue to start installing the software.



- Click Continue.



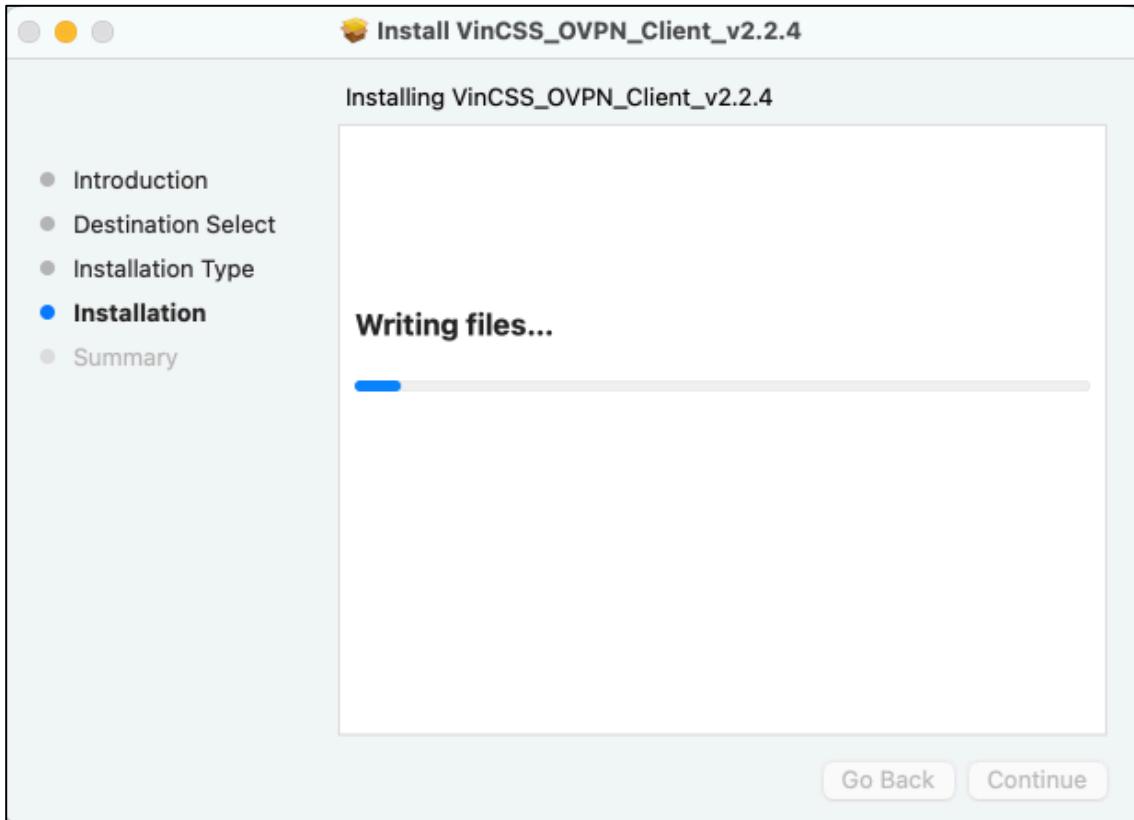
- Click Install to continue.



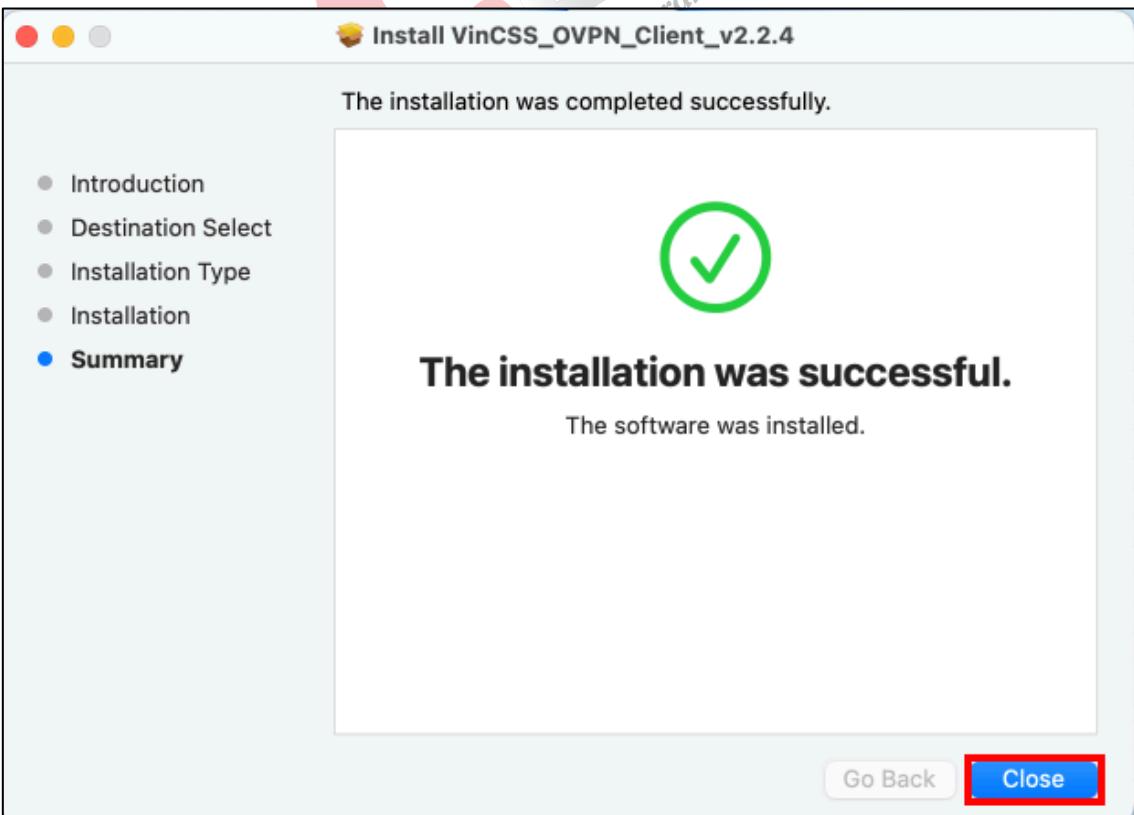
- Enter Password (*Of computer*), then click Install Software to continue.



- Installing software.

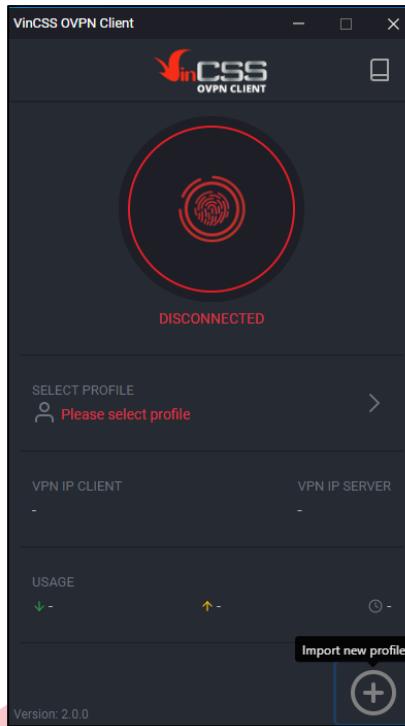


- Click Close to complete the installation of VinCSS OVPN Client software.

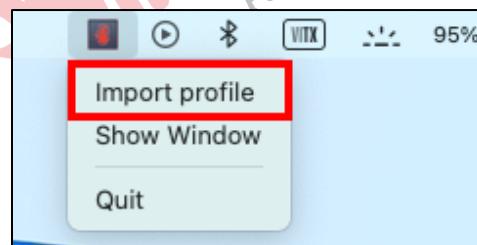


I.2.2. Configure VPN connection

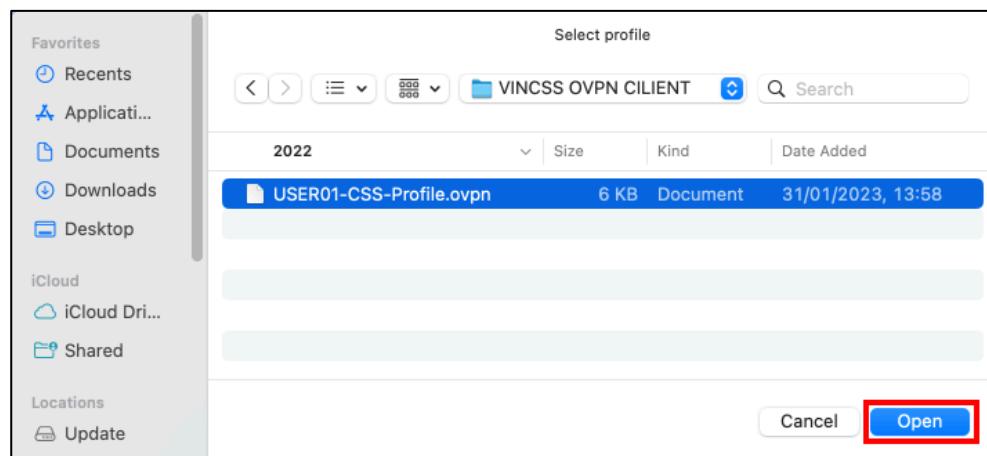
- Open VinCSS OVPN Client software installed in the computer. On the main screen, click (+) icon to add a new profile.



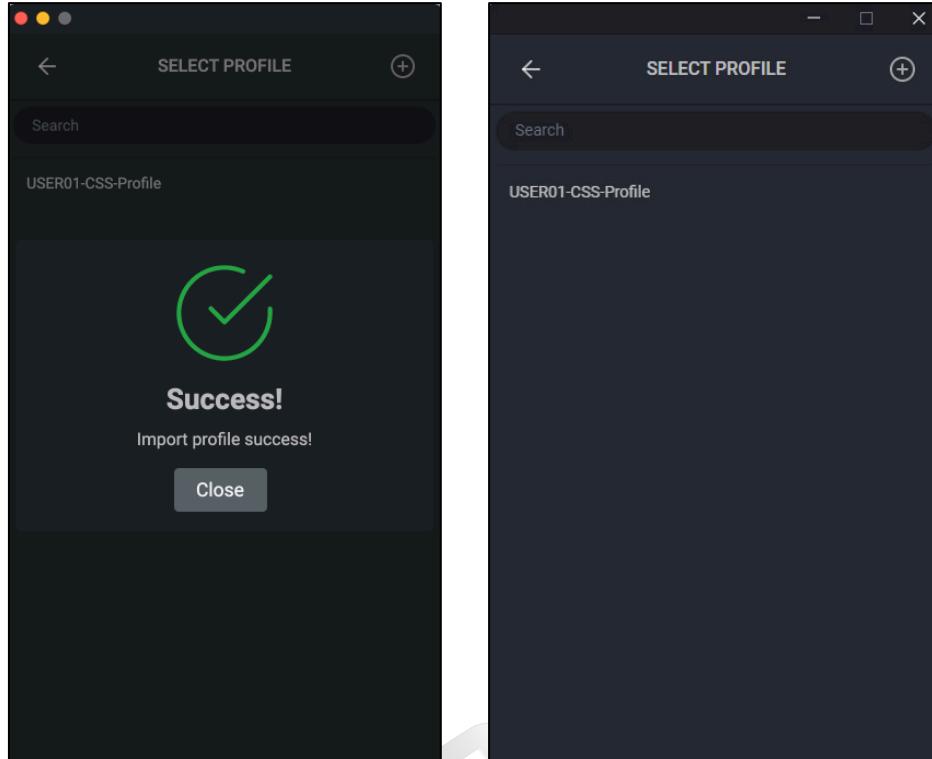
- Or right-click on VinCSS OVPN Client icon on the taskbar, select **Import profile**.



- Select the profile sent by administrator (*file .ovpn*) and click **Open**.



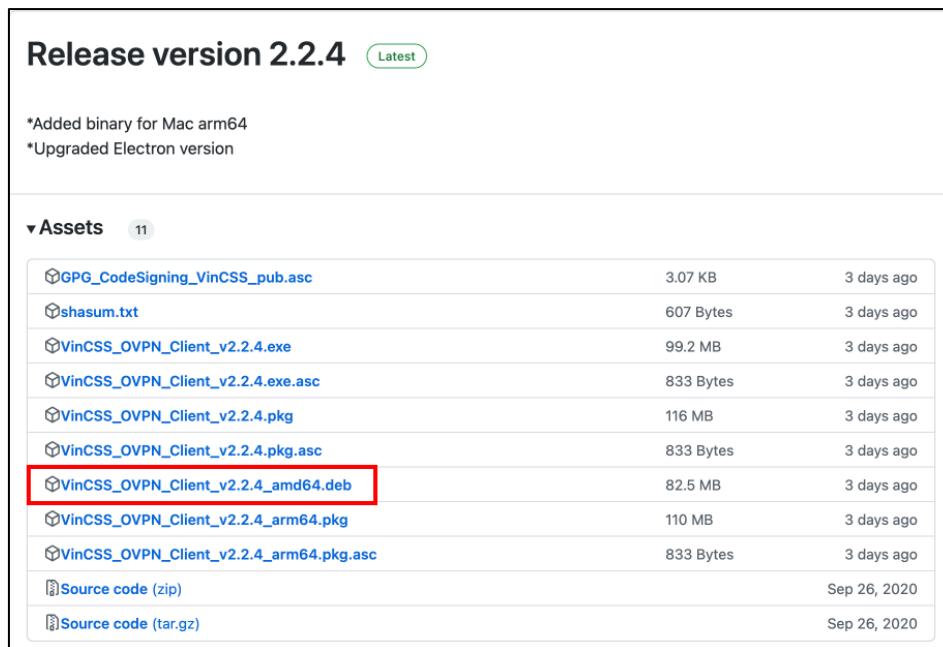
- Profile is added successfully. Click **Close** to close the notification window. Screen shows profile name on the list.



I.3. Linux

I.3.1. Install VinCSS OVPN Client

- Download VinCSS OVPN Client version for Linux at: <https://github.com/VinCSS-Public-Projects/VinCSS-FIDO2-OVPN-Client/releases>.



Release version 2.2.4 Latest

*Added binary for Mac arm64
*Upgraded Electron version

Assets 11

	GPG_CodeSigning_VinCSS_pub.asc	3.07 KB	3 days ago
	shasum.txt	607 Bytes	3 days ago
	VinCSS_OVPN_Client_v2.2.4.exe	99.2 MB	3 days ago
	VinCSS_OVPN_Client_v2.2.4.exe.asc	833 Bytes	3 days ago
	VinCSS_OVPN_Client_v2.2.4.pkg	116 MB	3 days ago
	VinCSS_OVPN_Client_v2.2.4.pkg.asc	833 Bytes	3 days ago
	VinCSS_OVPN_Client_v2.2.4_amd64.deb	82.5 MB	3 days ago
	VinCSS_OVPN_Client_v2.2.4_arm64.pkg	110 MB	3 days ago
	VinCSS_OVPN_Client_v2.2.4_arm64.pkg.asc	833 Bytes	3 days ago
	Source code (zip)		Sep 26, 2020
	Source code (tar.gz)		Sep 26, 2020

- Use file **GPG_CodeSigning_VinCSS.asc** at <https://github.com/VinCSS-Public-Projects/VinCSS-FIDO2-OVPN-Client/releases> to verify the installation package.

Release version 2.2.4 (Latest)

*Added binary for Mac arm64
 *Upgraded Electron version

▼ Assets 11

GPG_CodeSigning_VinCSS_pub.asc	3.07 KB	3 days ago
shasum.txt	607 Bytes	3 days ago
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VinCSS_OVPN_Client_v2.2.4_amd64.deb	82.5 MB	3 days ago
VinCSS_OVPN_Client_v2.2.4_arm64.pkg	110 MB	3 days ago
VinCSS_OVPN_Client_v2.2.4_arm64.pkg.asc	833 Bytes	3 days ago
Source code (zip)		Sep 26, 2020
Source code (tar.gz)		Sep 26, 2020

- Open Terminal and access the path containing the installer file. Import public key with the following command:

```
gpg --import GPG_CodeSigning_VinCSS_pub.asc
```

```
user01@ubuntu:~/Downloads$ gpg --import GPG_CodeSigning_VinCSS_pub.asc
gpg: keybox '/home/user01/.gnupg/pubring.kbx' created
gpg: /home/user01/.gnupg/trustdb.gpg: trustdb created
gpg: key F7ACCD3C240593A8: public key "VinCSS JSC <v.office@vincss.net>"
gpg: Total number processed: 1
gpg:           imported: 1
```

- Enter the following command to install the software. Enter the **password (of the computer)** then press **Enter**.

```
Sudo apt install dpkg-sig
```

```
user01@ubuntu:~/Downloads$ sudo apt install dpkg-sig
[sudo] password for user01:
```

- Type the letter 'Y', then press **Enter** to confirm setting.

```
user01@ubuntu:~/Downloads$ sudo apt install dpkg-sig
[sudo] password for user01:
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  libconfig-file-perl
Suggested packages:
  ssh libterm-readkey-perl
The following NEW packages will be installed:
  dpkg-sig libconfig-file-perl
0 upgraded, 2 newly installed, 0 to remove and 171 not upgraded.
Need to get 43.3 kB of archives.
After this operation, 141 kB of additional disk space will be used.
Do you want to continue? [Y/n] 
```

- Use the following command to verify the validation of the installation package (*result show “GOODSIG”*):

```
dpkg-sig --verify VinCSS-OVPN-Client_< version,
example: 1.3.4>_amd64.deb
```

```
user01@ubuntu:~/Downloads$ dpkg-sig --verify VinCSS_OVPN_Client_v2.2.4_amd64.deb
Processing VinCSS_OVPN_Client_v2.2.4_amd64.deb...
GOODSIG_gpgbuilder 6FB4CACBDD483FBD859ECDC7F7ACCD3C240593A8 1678681900
```

- Use file **VinCSS-OVPN-Client_<version>_amd64.deb** and run the following command to install:

```
sudo      dpkg      -i      VinCSS-OVPN-Client_<version>,
example: 1.3.4>_amd64.deb
```

```
user01@ubuntu:~/Downloads$ sudo dpkg -i VinCSS_OVPN_Client_v2.2.4_amd64.deb
Selecting previously unselected package vincss-ovpn-client.
(Reading database ... 157037 files and directories currently installed.)
Preparing to unpack VinCSS_OVPN_Client_v2.2.4_amd64.deb ...
vincss-ovpn-client: no process found
/var/lib/dpkg/tmp.ci/preinst: 2: /opt/vincss-ovpn-client/VPNService: not found
Failed to stop VinCSSOVNClient.service: Unit VinCSSOVNClient.service not loaded.
Failed to disable unit: Unit file VinCSSOVNClient.service does not exist.
rm: cannot remove '/etc/systemd/system/VinCSSOVNClient.service': No such file or directory
Unpacking vincss-ovpn-client (2.2.4) ...
dpkg: dependency problems prevent configuration of vincss-ovpn-client:
  vincss-ovpn-client depends on openvpn-systemd-resolved (>= 1.2.7); however:
    Package openvpn-systemd-resolved is not installed.

dpkg: error processing package vincss-ovpn-client (--install):
 dependency problems - leaving unconfigured
Errors were encountered while processing:
 vincss-ovpn-client
```

- System will request user to install **openvpn-systemd-resolved** additional packages. Use the following command to install the missing package:

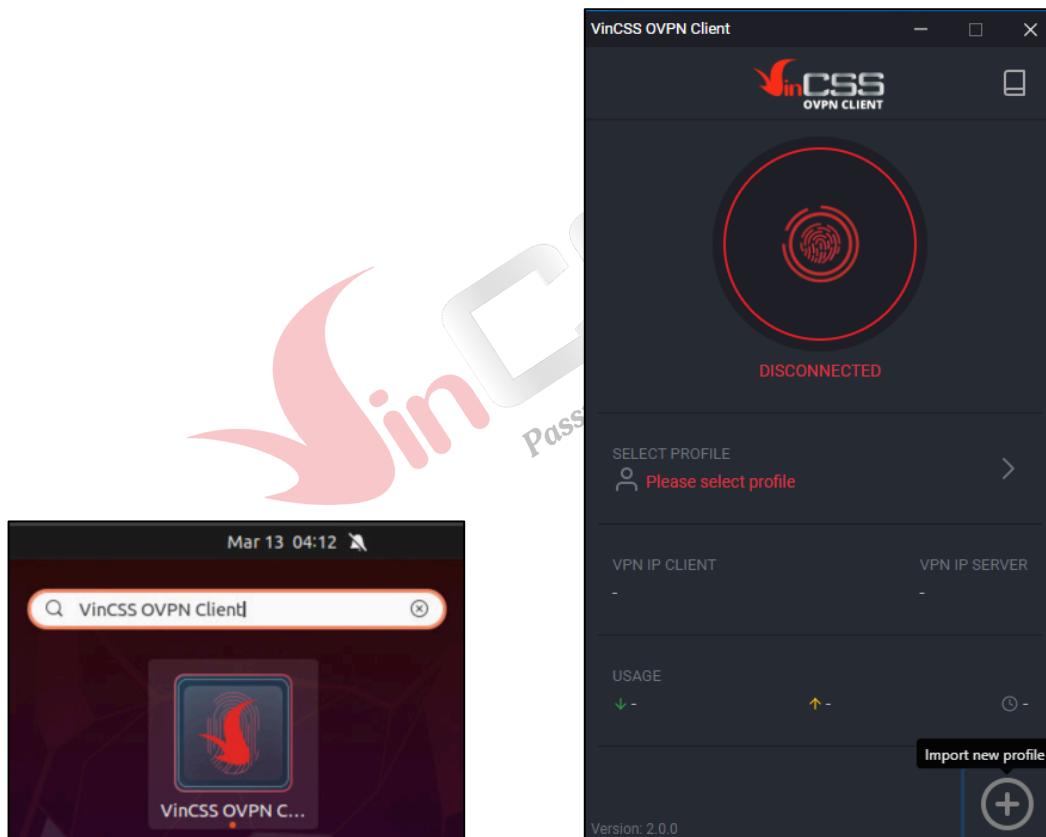
```
sudo apt-get -f install
```

- Installation success screen.

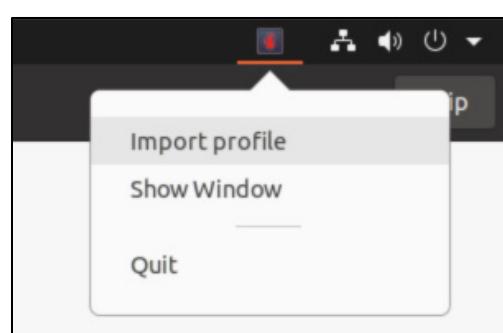
```
Get:2 http://us.archive.ubuntu.com/ubuntu focal/universe amd64 openvpn-systemd-resolved amd64 1.3.0-3 [12.3 kB]
Fetched 141 kB in 25 (71.6 kB/s)
(Reading database ... 157118 files and directories currently installed.)
Preparing to unpack .../0-systemd-timesyncd_245.4-4ubuntu3.20_amd64.deb ...
Unpacking systemd-timesyncd (245.4-4ubuntu3.20) over (245.4-4ubuntu3.17) ...
Preparing to unpack .../1-libnss-systemd_245.4-4ubuntu3.20_amd64.deb ...
Unpacking libnss-systemd:amd64 (245.4-4ubuntu3.20) over (245.4-4ubuntu3.17) ...
Preparing to unpack .../2-systemd-sysv_245.4-4ubuntu3.20_amd64.deb ...
Unpacking systemd-sysv (245.4-4ubuntu3.20) over (245.4-4ubuntu3.17) ...
Preparing to unpack .../3-libpam-systemd_245.4-4ubuntu3.20_amd64.deb ...
Unpacking libpam-systemd:amd64 (245.4-4ubuntu3.20) over (245.4-4ubuntu3.17) ...
Preparing to unpack .../4-systemd_245.4-4ubuntu3.20_amd64.deb ...
Unpacking systemd (245.4-4ubuntu3.20) over (245.4-4ubuntu3.17) ...
Preparing to unpack .../5-libsystemd0_245.4-4ubuntu3.20_amd64.deb ...
Unpacking libsystemd0:amd64 (245.4-4ubuntu3.20) over (245.4-4ubuntu3.17) ...
Setting up libsystemd0:amd64 (245.4-4ubuntu3.20) ...
Selecting previously unselected package libnss-resolve:amd64.
(Reading database ... 157118 files and directories currently installed.)
Preparing to unpack .../libnss-resolve_245.4-4ubuntu3.20_amd64.deb ...
Unpacking libnss-resolve:amd64 (245.4-4ubuntu3.20) ...
Selecting previously unselected package openvpn-systemd-resolved.
Preparing to unpack .../openvpn-systemd-resolved_1.3.0-3_amd64.deb ...
Unpacking openvpn-systemd-resolved (1.3.0-3) ...
Setting up systemd (245.4-4ubuntu3.20) ...
Setting up systemd-timesyncd (245.4-4ubuntu3.20) ...
Setting up libnss-resolve:amd64 (245.4-4ubuntu3.20) ...
First installation detected...
Checking NSS setup...
Setting up systemd-sysv (245.4-4ubuntu3.20) ...
Setting up libnss-systemd:amd64 (245.4-4ubuntu3.20) ...
Setting up openvpn-systemd-resolved (1.3.0-3) ...
Setting up libpam-systemd:amd64 (245.4-4ubuntu3.20) ...
Setting up vincss-ovpn-client (2.2.4) ...
2023/03/16 09:14:06 VinCSSOVNClient installed as service
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for dbus (1.12.16-2ubuntu2.2) ...
Processing triggers for libc-bin (2.31-0ubuntu9.9) ...
user01@ubuntu:~/Downloads$
```

I.3.2. Configure VPN connection

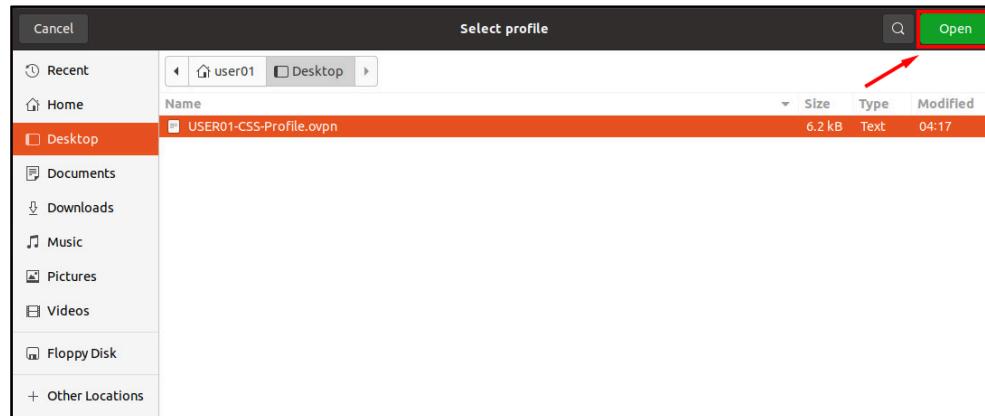
- Due to the Default settings on Linux, after VPN is installed, it does not update DNS. So user must add some information in VPN profile. Follow the steps listed below:
 - Open the VPN profile file sent by administrator (*file .ovpn*), add the following line at the end of the VPN profile file.
- `dhcp-option DOMAIN-ROUTE .`
- Then proceed to save the configuration VinCSS OVPN Client file.
- Open VinCSS OVPN Client software installed in the computer. On the main interface, click the (+) sign to add a new profile.



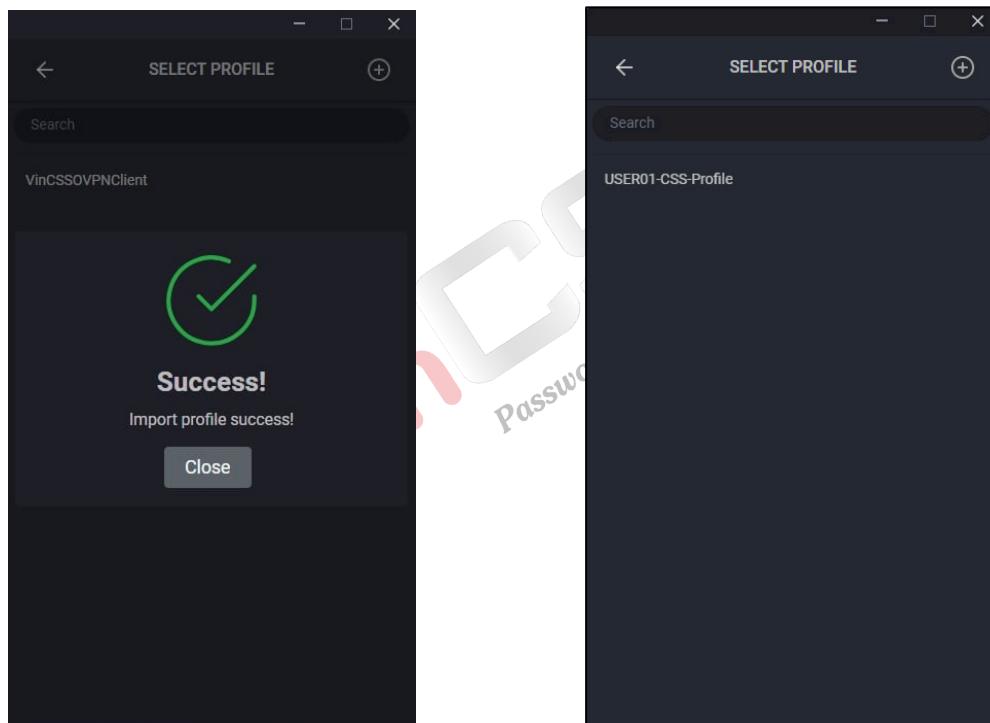
- Click on VinCSS OVPN Client icon, then select **Import Profile**.



- Select the profile added information and click **Open**.



- After the profile is added successfully, click **Close** to close the notification. Screen shows profile name on the list.



II. CONNECT VPN WITH VINCSS OVPN CLIENT USING VINCSS FIDO2® TOUCH 1 FOR PASSWORDLESS AUTHENTICATION

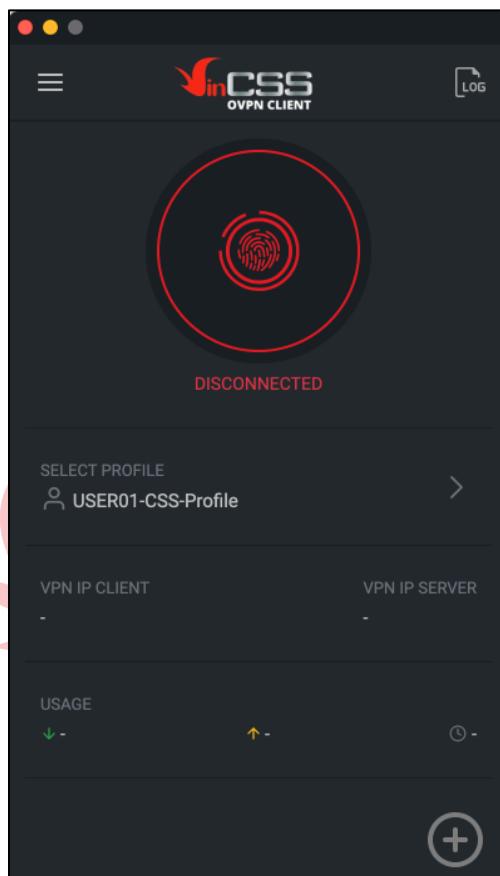
Note:

- Contact administrator to register the VinCSS FIDO2® Touch 1 for passwordless authentication with VinCSS OVPN Client software.
- By default, administrator will send a link to register a security key that can be used with all login forms after successfully registering a security key (Passwordless authentication (Refer to Section II.1) and Usernameless authentication (Refer to Section II.2)).

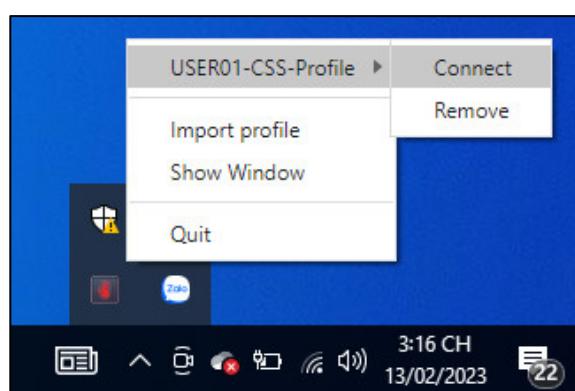
- The sequence of steps to establish VPN connection with VinCSS OVPN Client using VinCSS FIDO2® Touch 1 key for passwordless authentication is performed consistently for Windows, macOS, Linux. Section below is a step-by-step guide on Windows operating system.

Configuring VPN connection

- Connect VinCSS FIDO2® Touch 1 key to the computer.
- On the VinCSS OVPN Client interface, select the profile to connect, then click the red fingerprint icon.

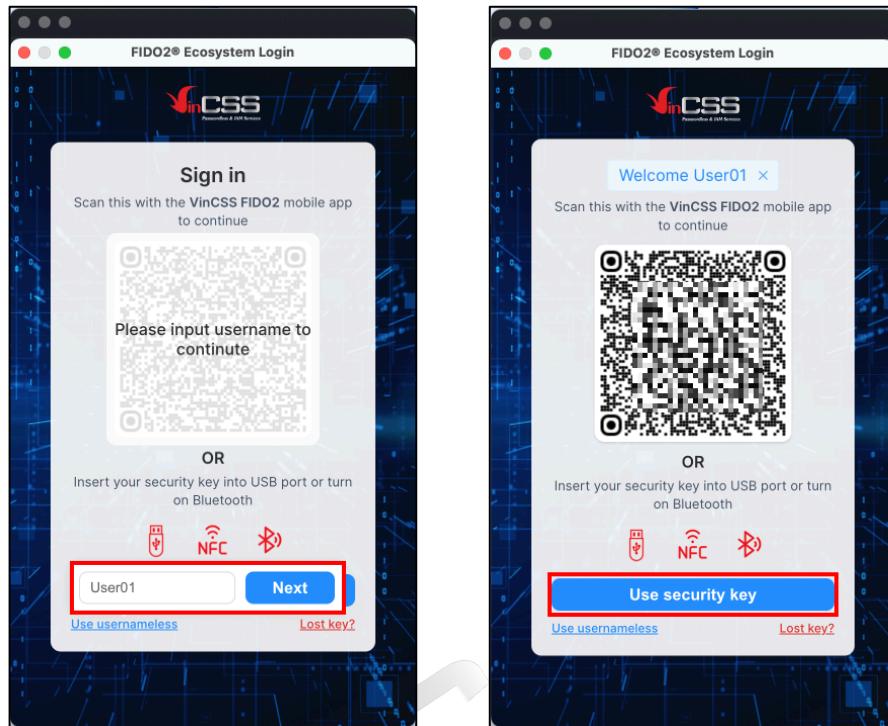


- Or right-click on VinCSS OVPN Client icon on taskbar, select VPN profile to connect, then select **Connect**.



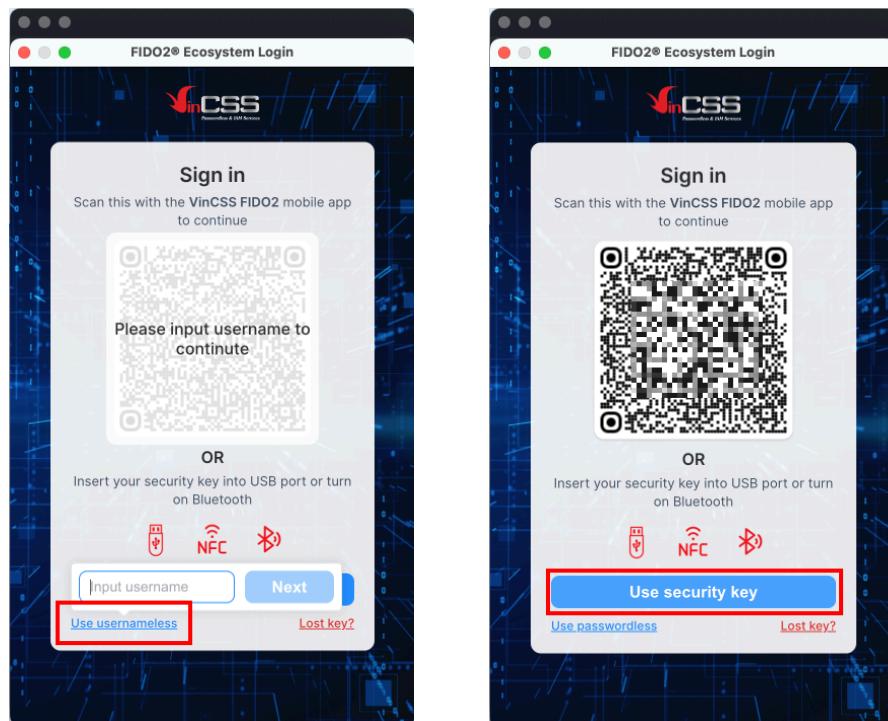
II.1. Passwordless authentication

- On the program interface, enter the **username** (*case-insensitive*), click **Next**. Then select **Use security key**.



II.2. Usernameless Authentication

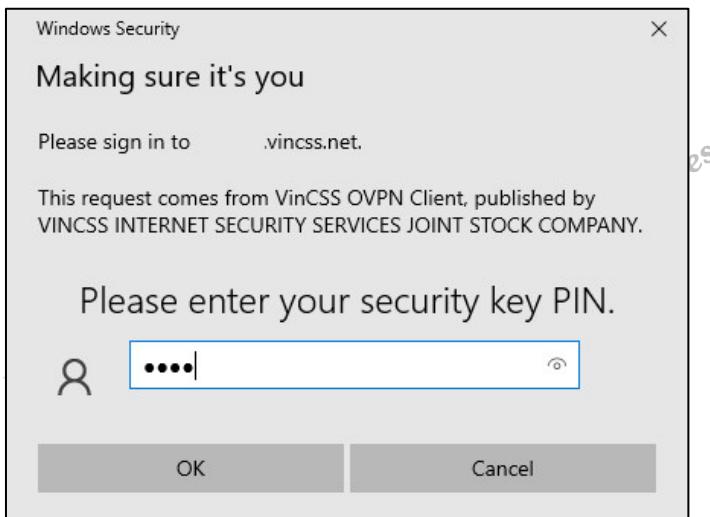
- Or users can choose another login method by selecting **Use usernameless** to replace the **username** input step, then select **Use security key**.



- Touch the logo on the VinCSS FIDO2® Touch 1 security key.



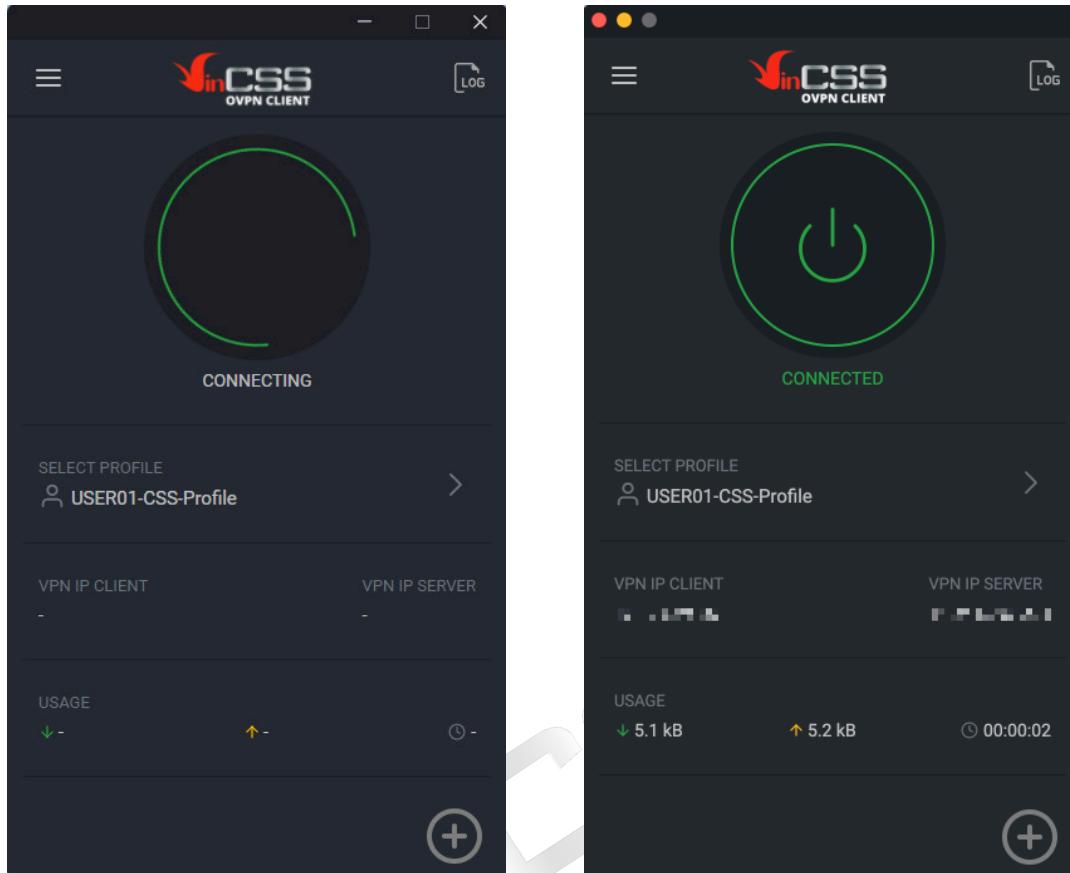
- Enter the **PIN code** of VinCSS FIDO2® Touch 1 and click **OK**.



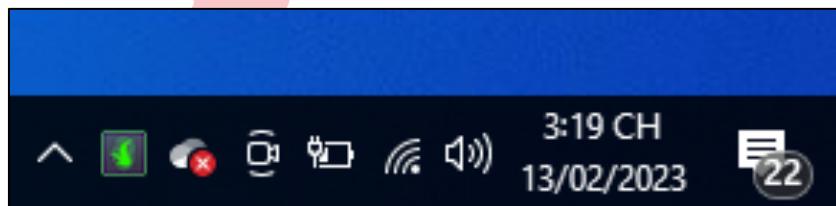
- Touch the yellow logo on the VinCSS FIDO2® Touch 1 security key when receiving the notification for the second time.



- Loading screen while connecting server. VPN connection is established successfully if the screen shows the word **CONNECTED** in green.



- A green icon will be displayed on the taskbar.



III. CONNECT VPN WITH VINCSS OVPN CLIENT USING VINCSS FIDO2® FINGERPRINT FOR PASSWORDLESS AUTHENTICATION

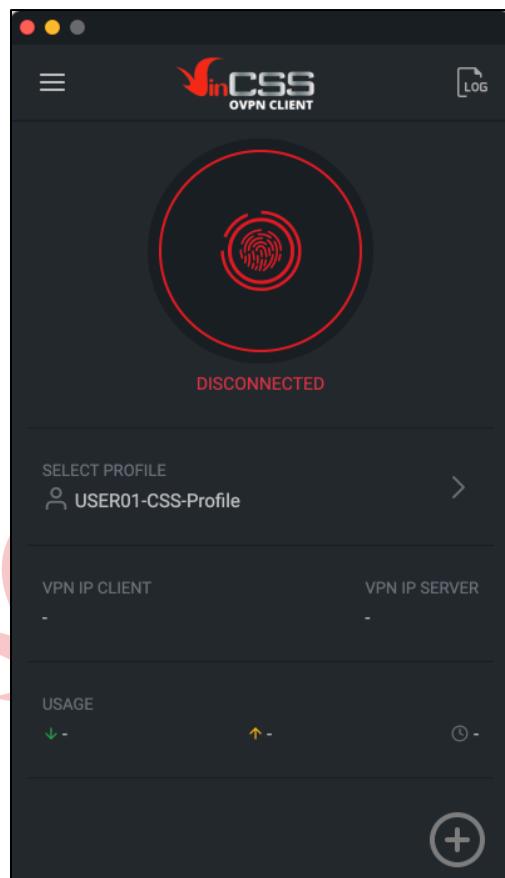
Note:

- *Contact administrator to register the VinCSS FIDO2® fingerprint for passwordless authentication with VinCSS OVPN Client software.*
- *By default, the administrator will send a link to register a security key that can be used with all login forms after successfully registering a security key (Passwordless authentication (Refer to Section III.1) and Usernameless Authentication (Refer to Section III.2)).*

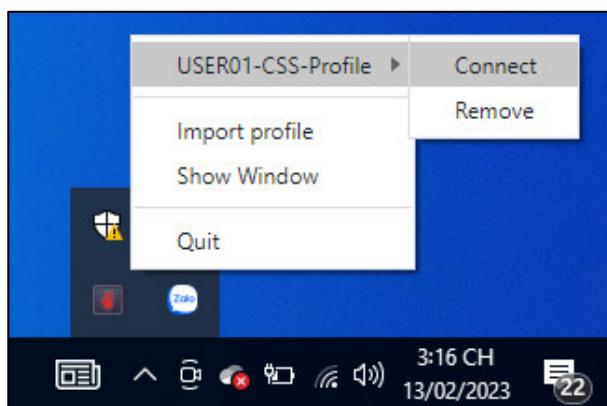
- The sequence of steps to establish VPN connection with VinCSS OVPN Client using VinCSS FIDO2® fingerprint key for passwordless authentication is performed consistently for Windows, macOS, Linux. Section below is a step-by-step guide on Windows operating system.

Configuring VPN connection

- Open VinCSS OVPN Client application, select the VPN profile to connect, then click the red fingerprint icon.

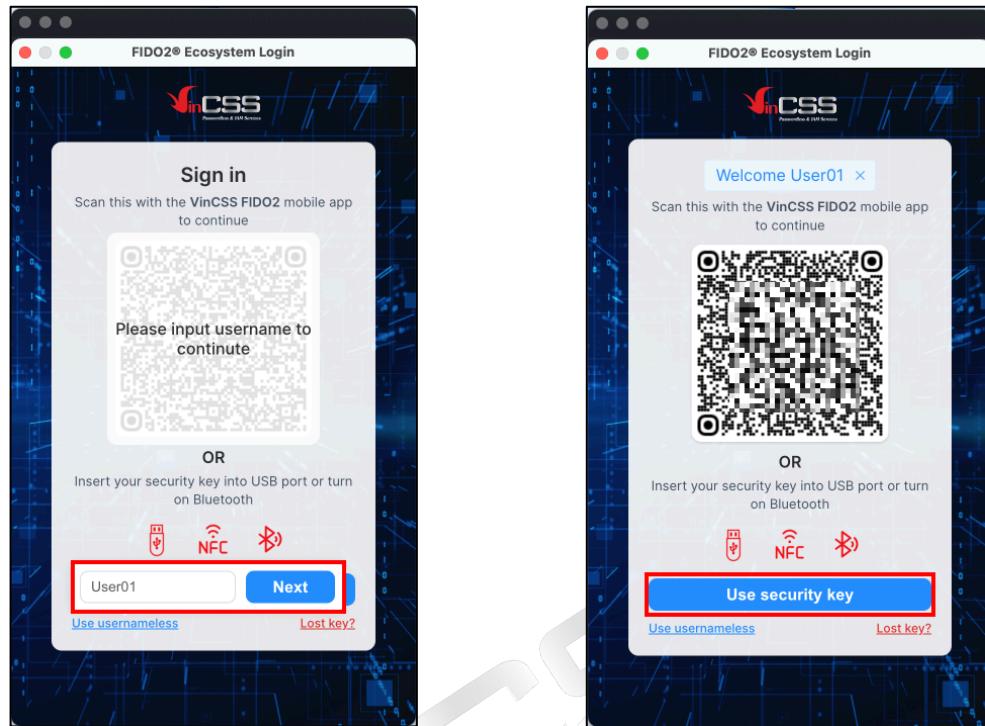


- Or right-click at the VinCSS OVPN Client icon in the taskbar, select the VPN profile to connect, then select **Connect**.



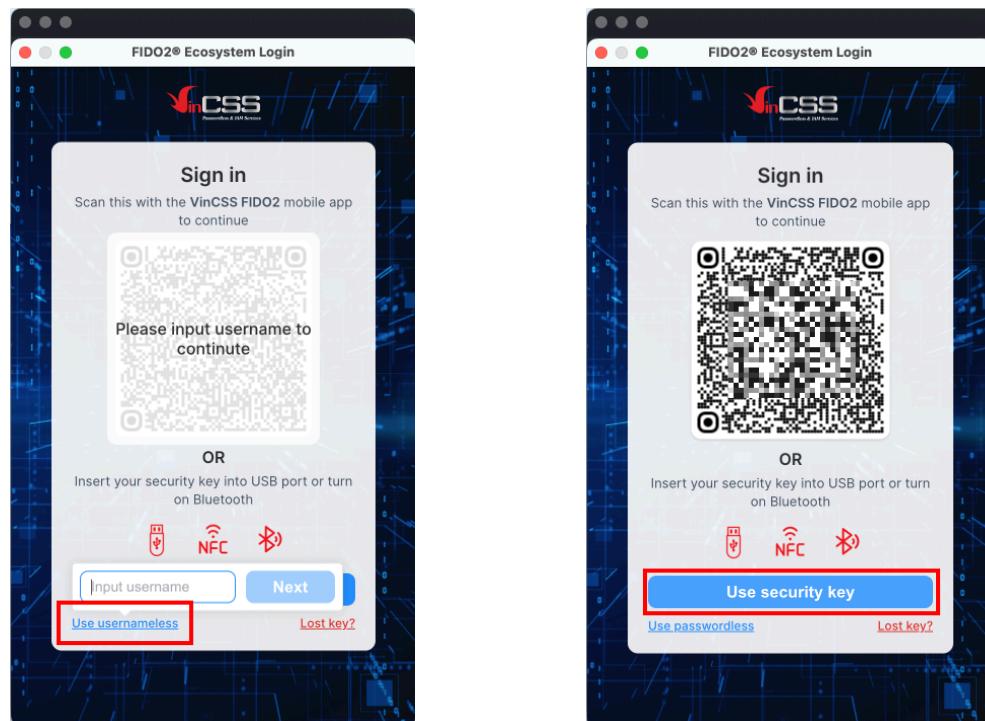
III.1. Passwordless authentication

- Enter **username** (*not case sensitive*), select **Next**. Then Select **Use security key** to continue.



III.2. Usernameless Authentication

- Or users can choose another login method by selecting **Use usernameless** to replace the **username** input step, then select **Use security key**.



III.2.1. Using via Bluetooth

- Turn on the Bluetooth mode of the computer and the VinCSS FIDO2® Fingerprint security key. Connect VinCSS FIDO2® Fingerprint security key with computer.



- Scan your fingerprint when receiving the notification.



III.2.2. Using via USB

- Connect VinCSS FIDO2® Fingerprint with computer via USB. Scan fingerprint on security key when receiving notification.

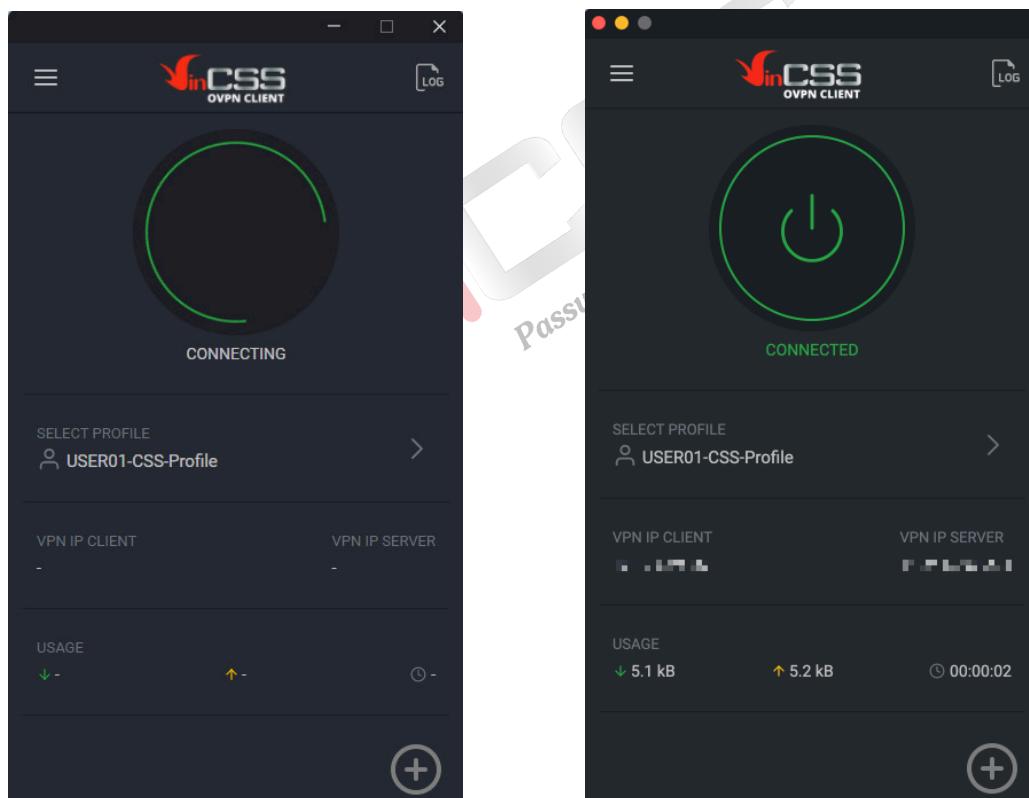


III.2.3. Using via NFC

- Connect VinCSS FIDO2® Fingerprint with computer via NFC. Touch the key to the NFC reader when receiving the notification.



- The connection process is conducted when user authenticates successfully. The **CONNECTED** status is displayed on screen.



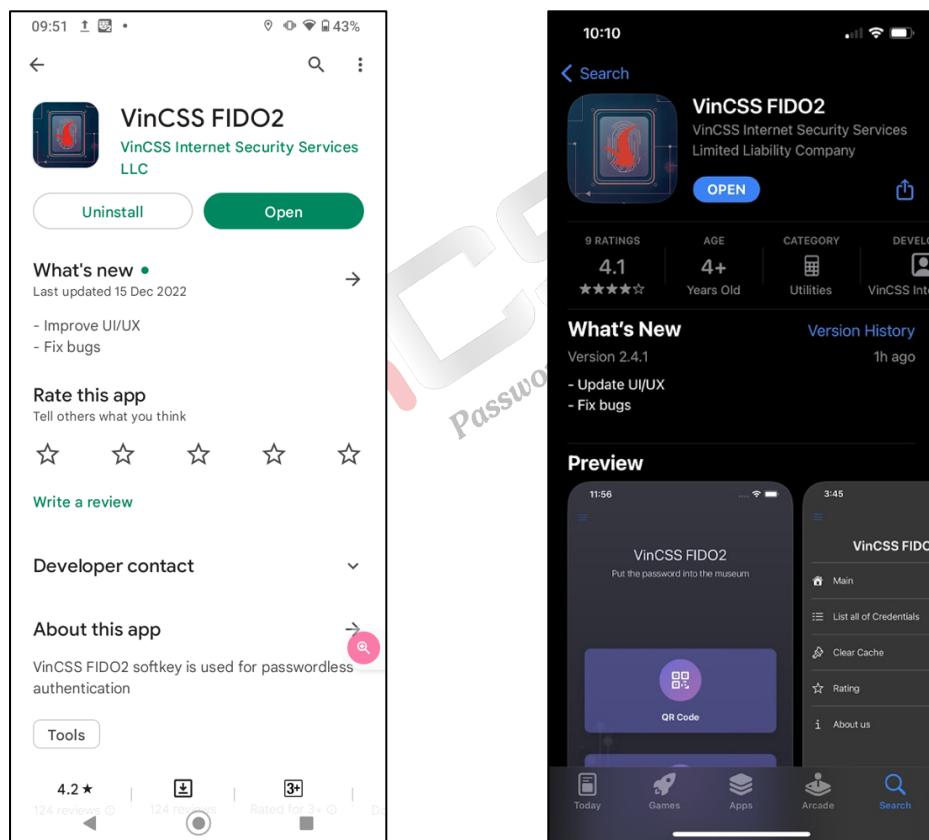
- A blue application logo icon will be displayed on the “tray bar” indicating a successful connection.



IV. CONNECT VPN WITH VINCSS OVPN CLIENT USING VINCSS FIDO2 APPLICATION FOR PASSWORDLESS AUTHENTICATION

Note:

- Install VinCSS FIDO2 application on smartphone.
- Contact administrator to get the link to register for a security key using the VinCSS FIDO2 application for passwordless authentication for the first time.
- By default, administrator will send a link to register a security key that can be used with all login forms after successfully registering a security key (Passwordless authentication (Refer to section IV.1.1) and Usernameless authentication (Refer to section IV.1.2)).



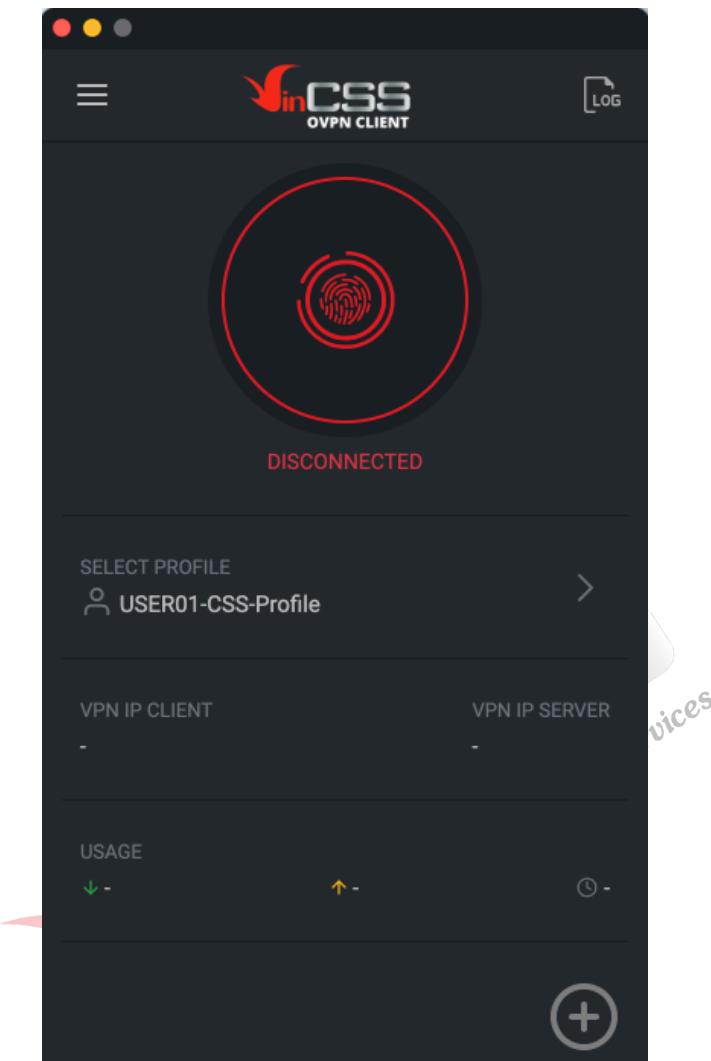
VinCSS FIDO2 app on Android

VinCSS FIDO2 app on iOS

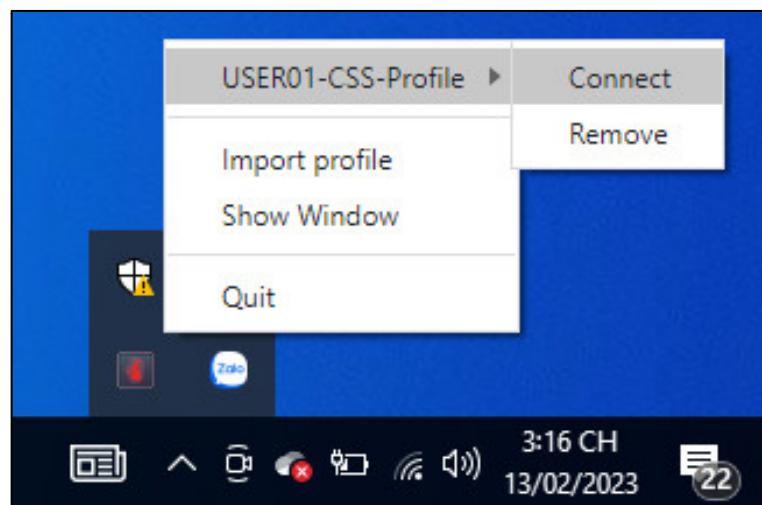
Configuring VPN connection

Note: The sequence of steps to establish VPN connection with VinCSS OVPN Client using VinCSS FIDO2 application on smartphone for passwordless authentication is performed consistently for Windows, macOS, Linux operating system. Section below is a step-by-step guide on Windows.

- On the VinCSS OVPN Client interface, select VPN profile to connect, then click the red fingerprint icon.



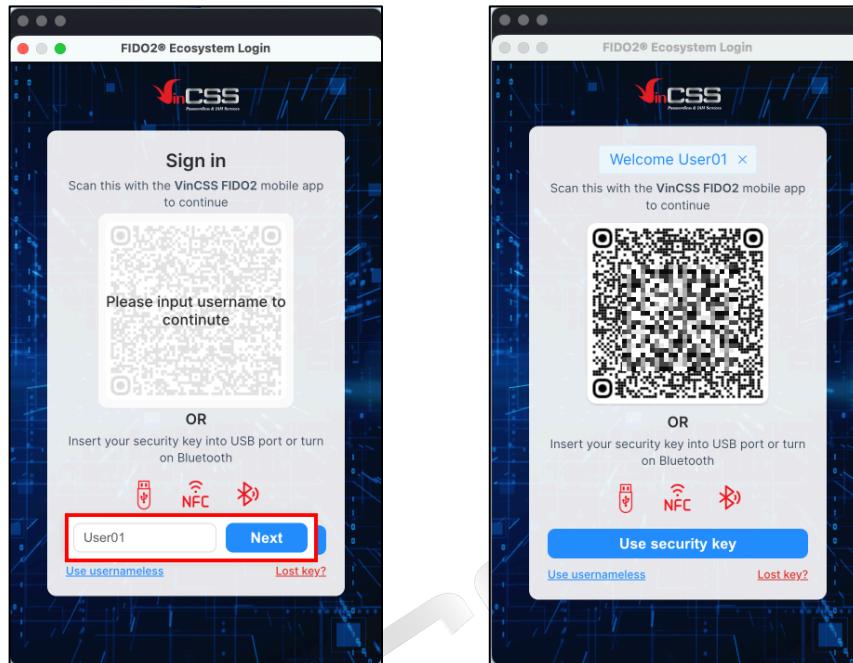
- Or right-click on VinCSS OVPN Client icon on taskbar, select VPN profile to connect, then click **Connect**.



IV.1. Authentication by QR Code

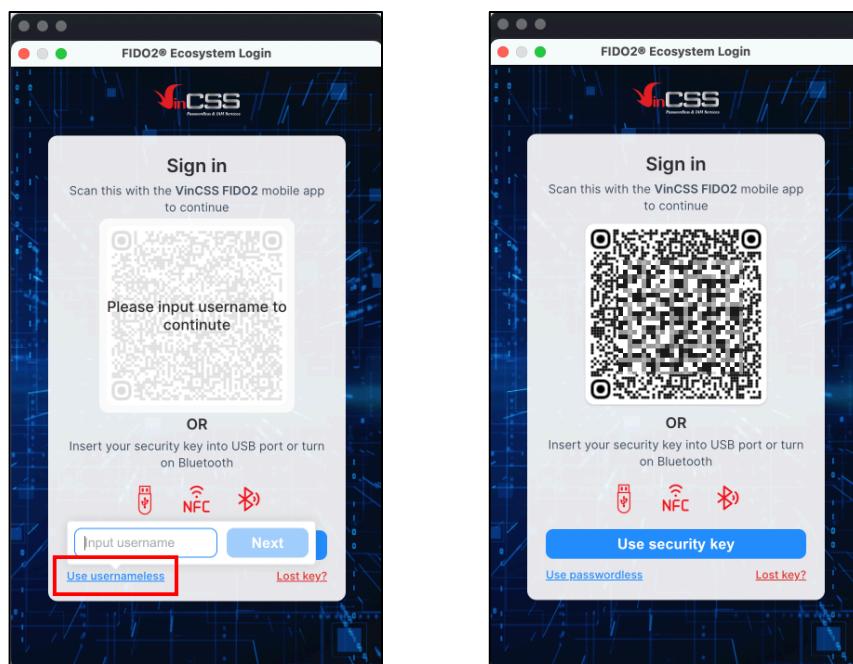
IV.1.1. Passwordless authentication

- On the program interface, enter the **username** (*case insensitive*), then select **Next**. The screen then shows a pop-up window displaying a QR Code.

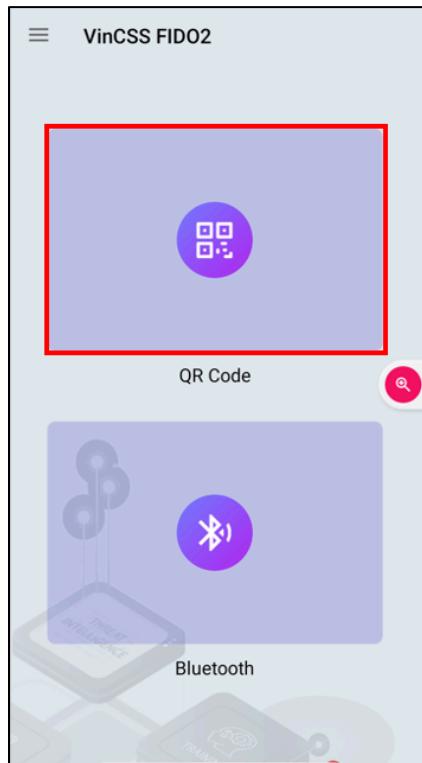


IV.1.2. Usernameless authentication

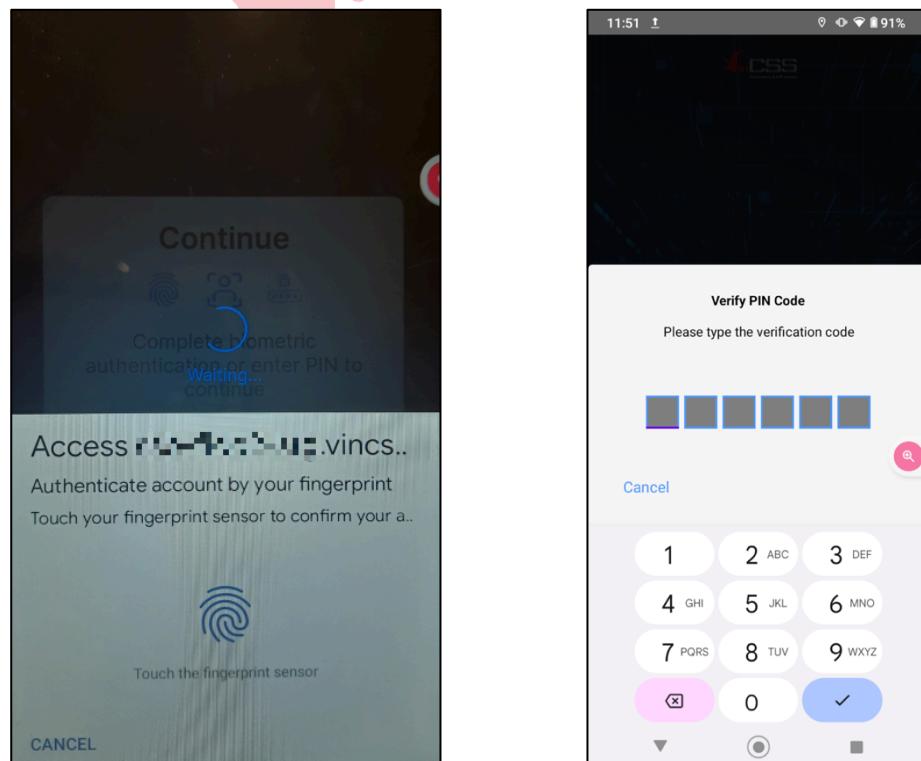
- Or user can choose another login method by selecting **Use usernameless** to replace the **username** input step, The screen then shows a pop-up window displaying a QR Code.



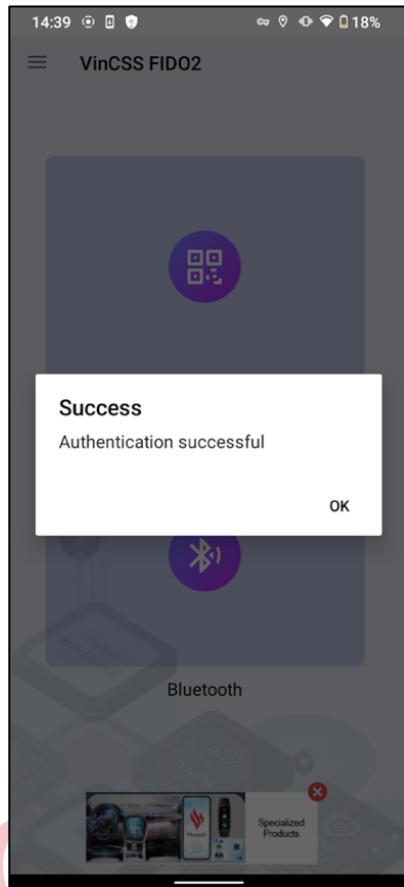
- On the phone, open the VinCSS FIDO2 application and select **QR code**, then proceed to scan the QR code.



- After scanning the QR Code, the application's interface displays a window that requires fingerprint scanning or PIN code entering (*at the request of the device*) to confirm.

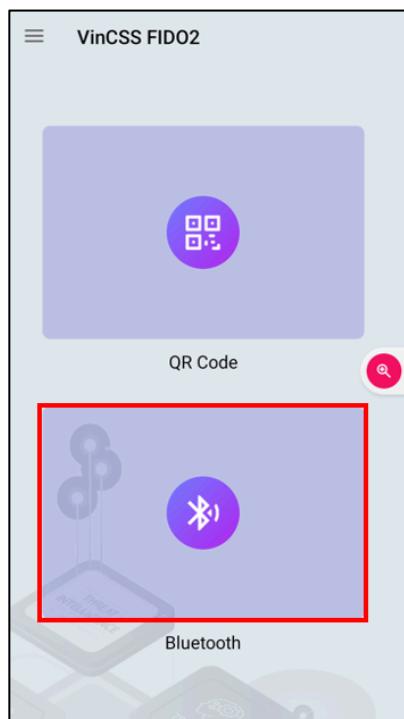


- The screen on the phone displays a successful authentication message.

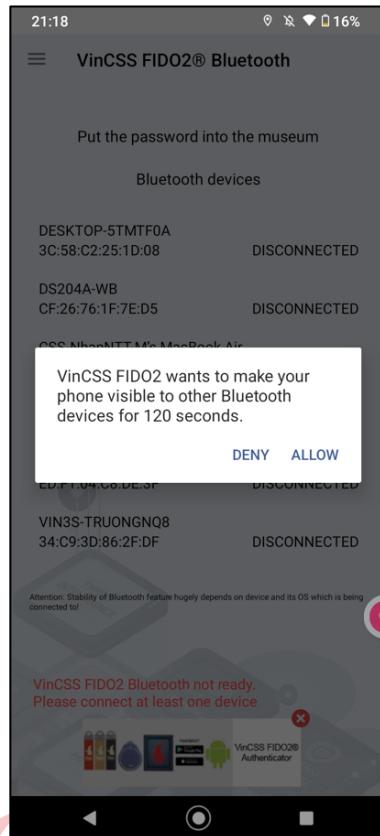


IV.2. Authentication via Bluetooth connection

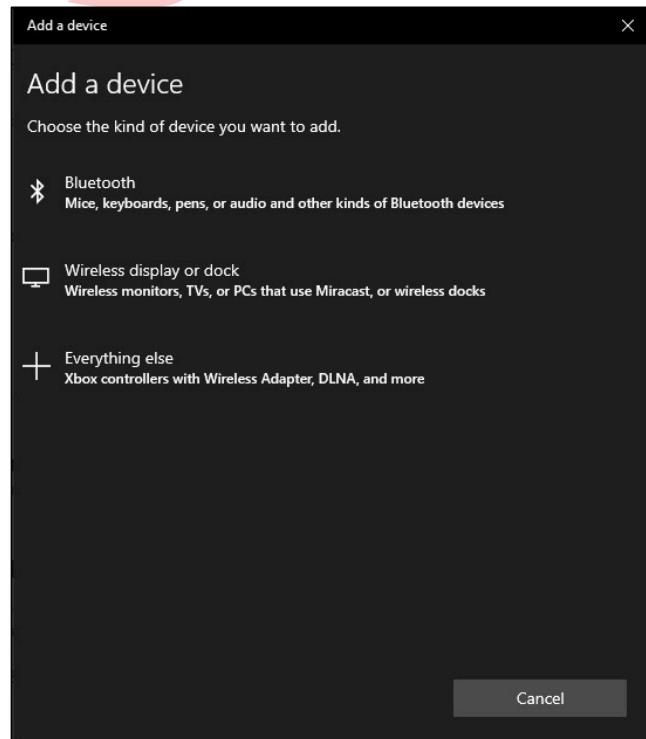
- Open the VinCSS FIDO2 application, select **Bluetooth**.



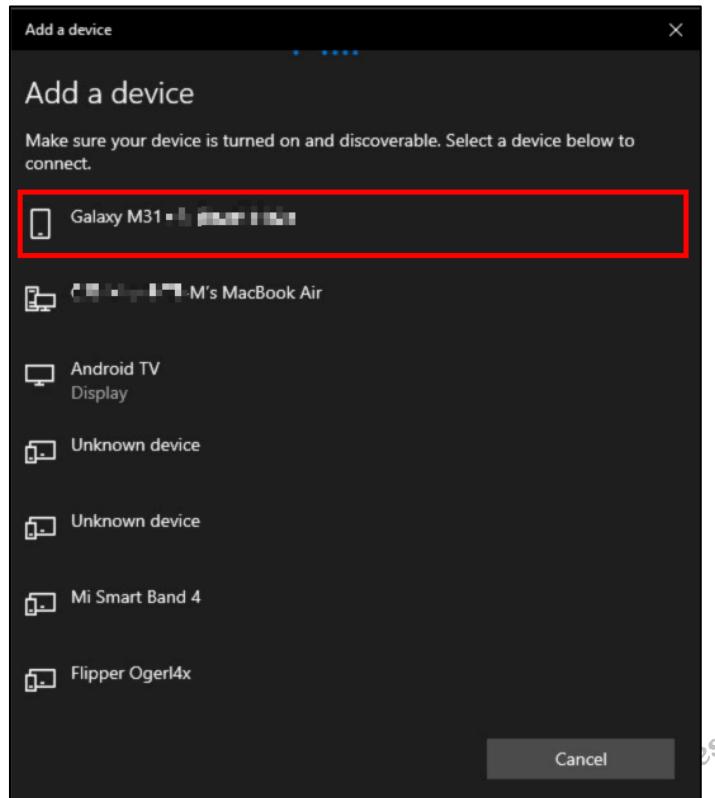
- Select **Allow** to continue.



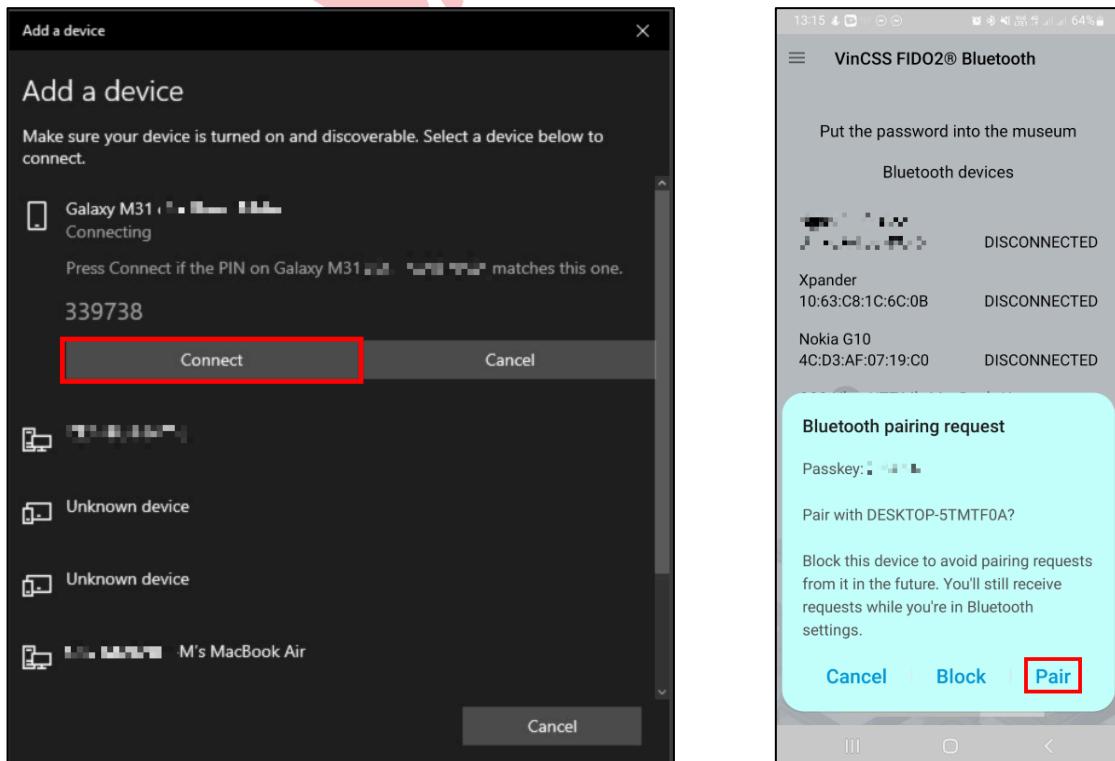
- On user's computer, select **Settings > Devices > Bluetooth & other devices > Add Bluetooth or other devices**. The **Add a devices** window appears.



- Select **Bluetooth**, then select the device you want to pair with the computer.

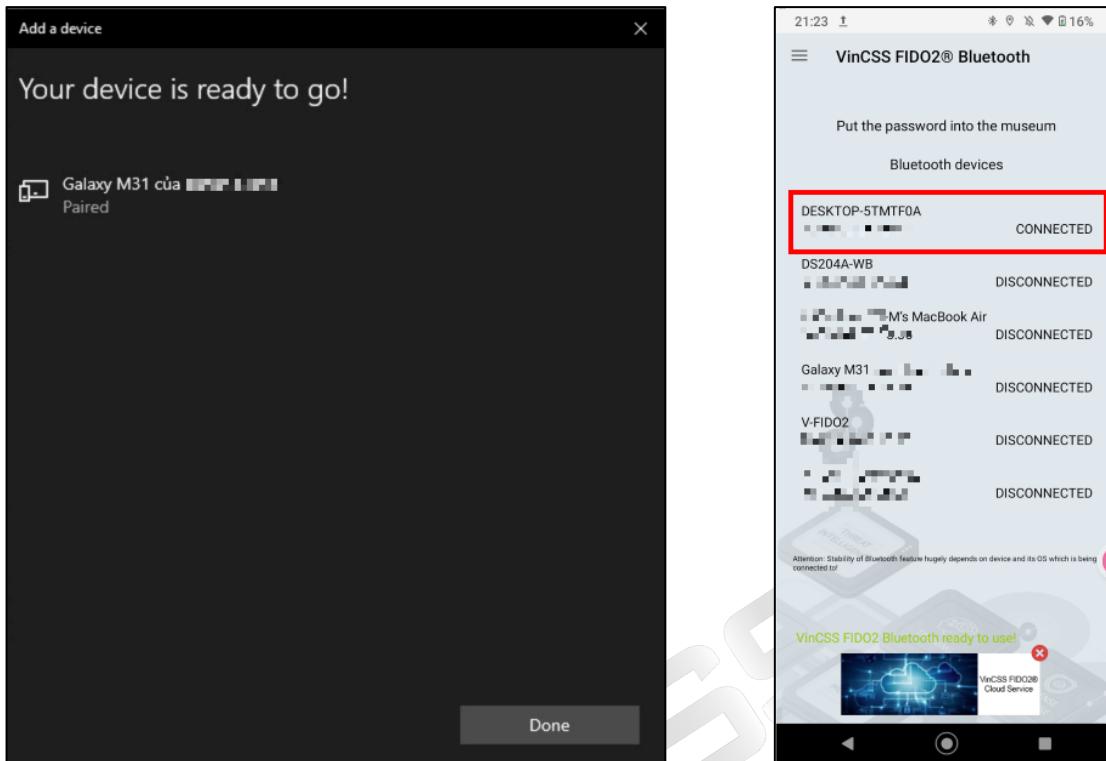


- On the computer and the phone, the device information is displayed in the waiting state of pairing. Check the PIN code, on the computer select **Connect**, on the phone select **Pair** to proceed with pairing.



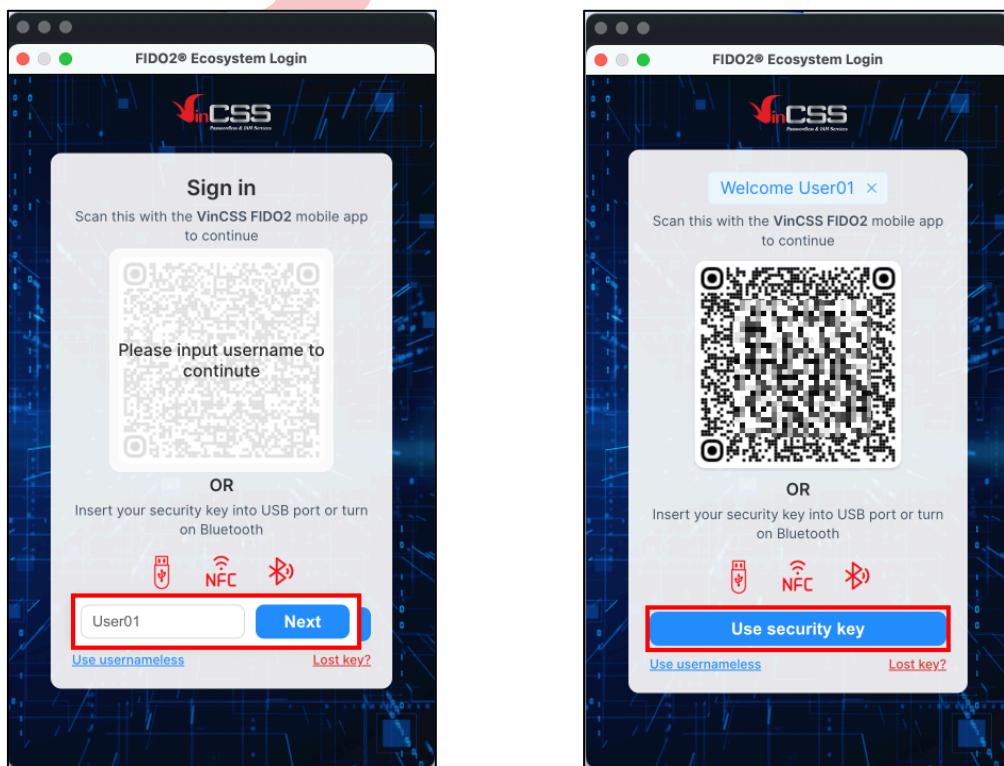
The image contains two side-by-side screenshots. The left screenshot is of the Windows 'Add a device' window, showing the 'Galaxy M31' device is 'Connecting'. A PIN code '339738' is displayed below the device list. The 'Connect' button at the bottom is highlighted with a red box. The right screenshot is of a mobile application titled 'VinCSS FIDO2® Bluetooth'. It shows a 'Bluetooth pairing request' screen with a 'Pair' button highlighted with a red box. The screen also displays other disconnected devices: 'Xpander' and 'Nokia G10'.

- The pairing process is successful, the paired device information is displayed on the computer and the VinCSS FIDO2 application.



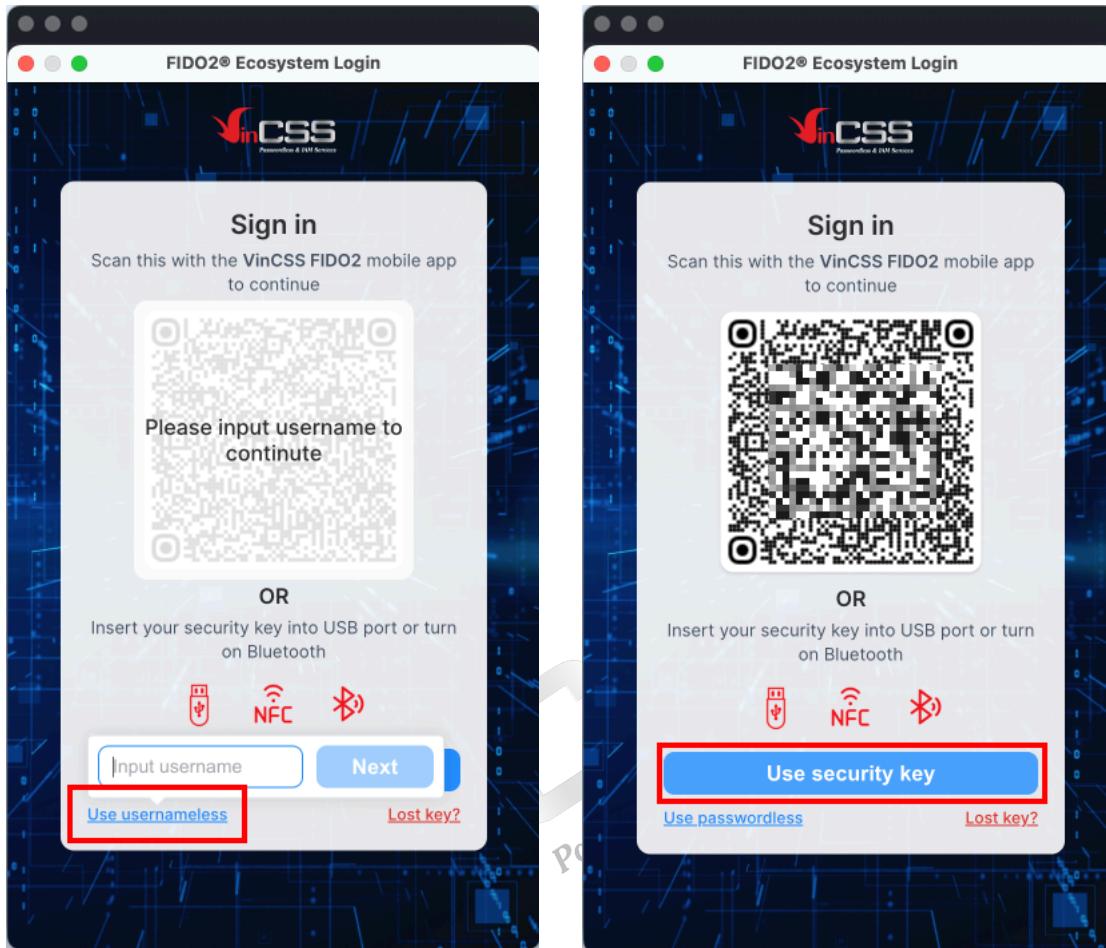
IV.2.1. Passwordless authentication

- On the computer screen, enter the **username** (*case insensitive*), select **Next**. Then select **Use security key**.



IV.2.2. Usernameless authentication

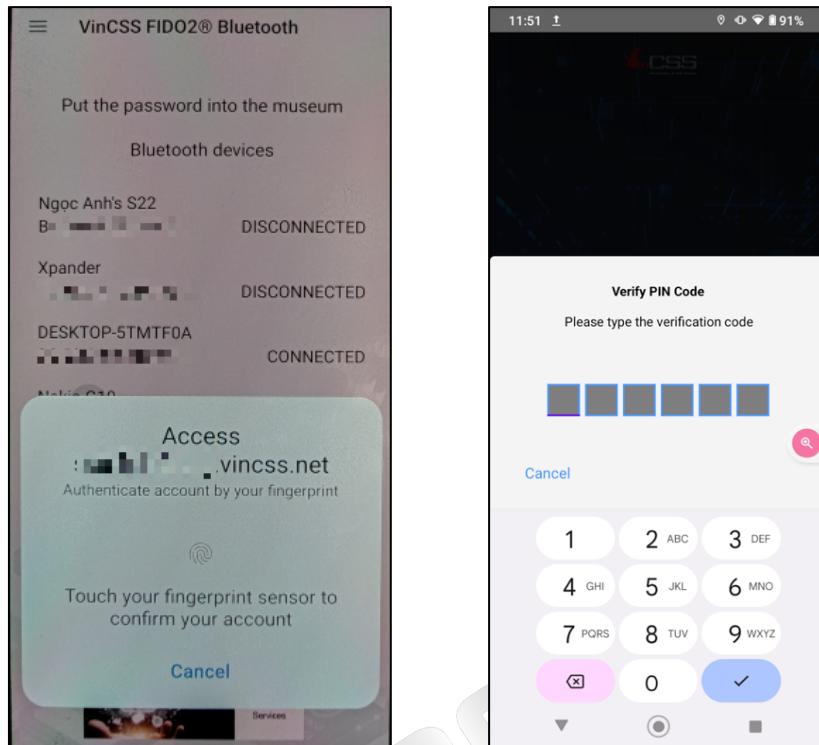
- Or choose **Use usernameless** to skip the **username** input step, then select **Use security key**.



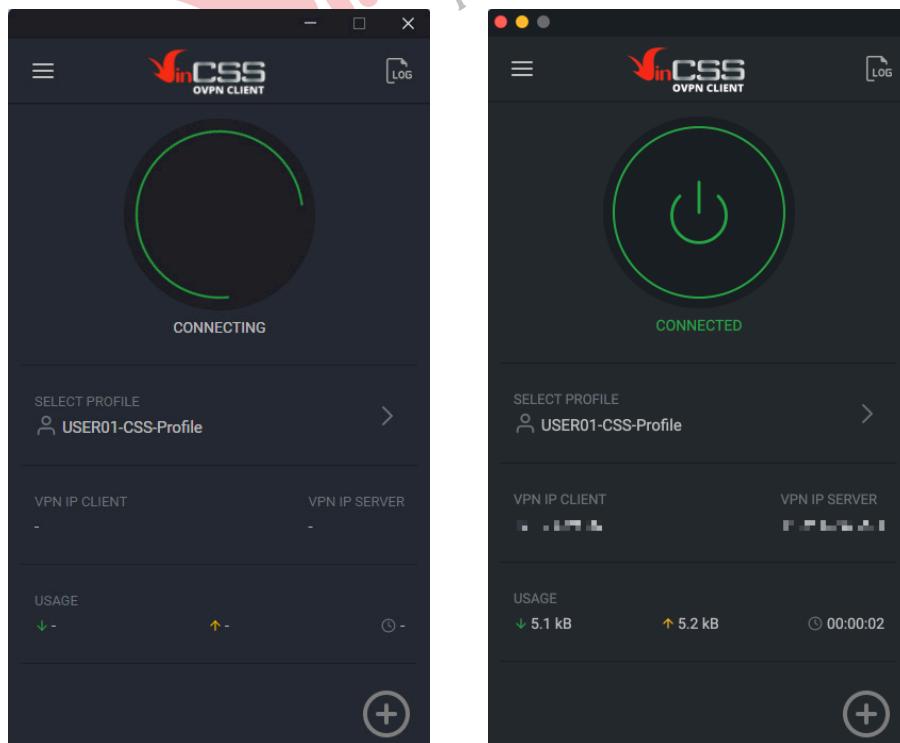
- Computer displays a pop-up window asking user to touch the security key. User performs authentication on the connected phone.



- On the application is a window that requires fingerprint scanning or PIN code entering (*according to device requirements*) to confirm.



- The connection process is conducted when user successfully authenticates on the phone. When VPN connection is successful, application interface shows **CONNECTED** status.



-
- On the “tray bar” is a blue application logo icon indicating a successful connection.



REFERENCES

- VinCSS FIDO2 Ecosystem: <https://passwordless.vincss.net/>
- VinCSS Youtube channel:
https://www.youtube.com/channel/UCNtS_7d4GtyecE2HCpJSr7g
- FAQs: <https://passwordless.vincss.net/en/support>
- VinCSS FIDO2® Touch 1 guide:
<https://github.com/VinCSS-Public-Projects/FIDO2-Public-Documents/tree/main/VinCSS-FIDO2-Touch-1>
- VinCSS FIDO2® Fingerprint guide:
<https://github.com/VinCSS-Public-Projects/FIDO2-Public-Documents/tree/main/VinCSS-FIDO2-Fingerprint>
- VinCSS FIDO2 Mobile Application guide:
<https://github.com/VinCSS-Public-Projects/FIDO2-Public-Documents/tree/main/VinCSS-FIDO2-Mobile-Application>

