DUO Two-Factor Authentication (DUO 2FA) User Guide

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ITSC

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Document History		
Version	**Update Date**	**Changes**
1.0	Feb 2018	Initial version
1.1	Jul 2020	Added Duo mobile app installation steps, under Section 2.1, for Android devices which can't connect to Google Play Store
2.1	Oct 2020	Added Rescue Code generation in Section 2.2, and updated related screens

1. About DUO 2FA

The traditional authentication method by just verifying the username and password is no more secure enough nowadays. In order to strengthen the protection of our account, two-factor authentication (2FA) is introduced. 2FA is an enhance authentication mechanism which requires user to provide any 2 of below factors for identity verification:

- Something you know: e.g. password
- Something you have: e.g. token, one-time passcode
- Something you are: e.g. fingerprint, voice

DUO 2FA is a two-factor authentication solution which requires users to provide the 2nd factor, i.e. a Duo push response / one-time passcode, from a designated device (e.g. your mobile device) for identity verification when they login those 2FA integrated applications.

1.1. Duo 2FA integrated User Applications

The latest list of Duo 2FA Integrated User Applications can be found in Duo 2FA website (https://www.itsc.cuhk.edu.hk/all-it/information-security/two-factor-authentication-2fa/) > under Tab '2. Implementation Scope'.

1.2. How It Works

Steps:

You need to:

i. **Enroll your O365 account and designated mobile device** (e.g. your mobile phone, tablet) via the Duo 2FA Self-Service User Portal (https://duo.itsc.cuhk.edu.hk).
ii. **Install DUO Mobile App** on above enrolled mobile device for linking up your account and receiving DUO Push notification or generate the one-time passcode for your login request.

Afterwards, when you are logging in to those 2FA integrated applications, you will need to:

i. first login the application with your username and password;
ii. then provide the 2nd factor (either one of below) to the application for authentication:
    a. **DUO Push response**, it is the authorization response to the Duo Push notification which sent from the login request of the application to your DUO Mobile App; or
    b. **One-Time Passcode,** it is generated from your DUO Mobile App for inputting to the application.

Once the above verification is passed, your access to the application is granted.

2. Duo 2FA Enrollment

2.1. User Enrollment, Mobile Device Registration

Before you can use the 2FA to login those 2FA integrated applications, you need to **enroll your account & register a designated mobile device** via DUO 2FA Self-Service User Portal, and **install the DUO Mobile App** on your designated mobile device for one-time passcode generation or Duo Push authorization.
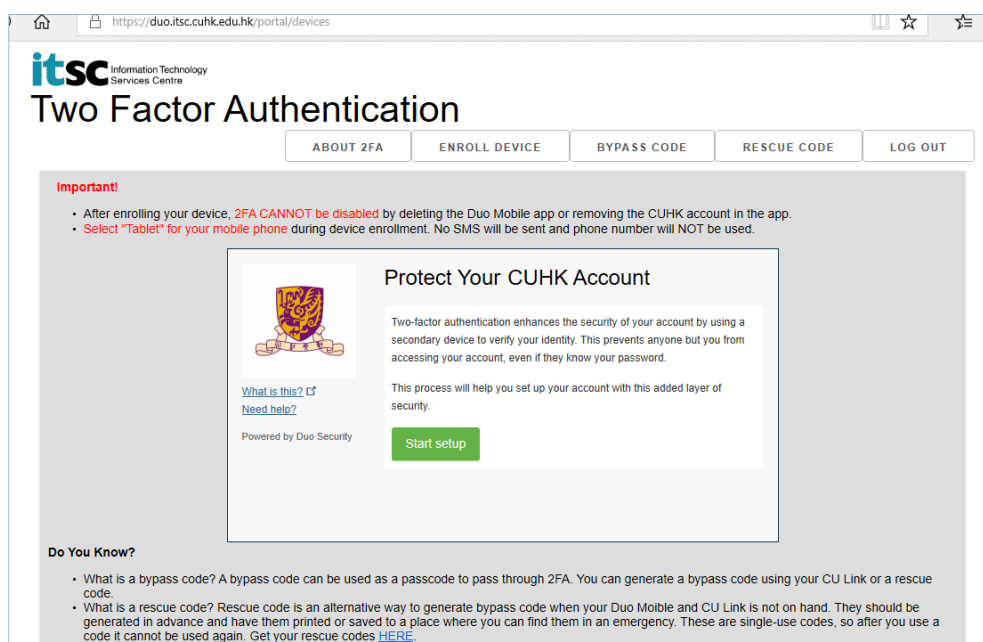
Steps:

i.   Open a web browser, visit Duo 2FA Self-Service User Portal at https://duo.itsc.cuhk.edu.hk.

ii.   Login with the account that is going to enroll Duo 2FA, i.e. your O365 staff/student/project account (@cuhk.edu.hk or @link.cuhk.edu.hk).
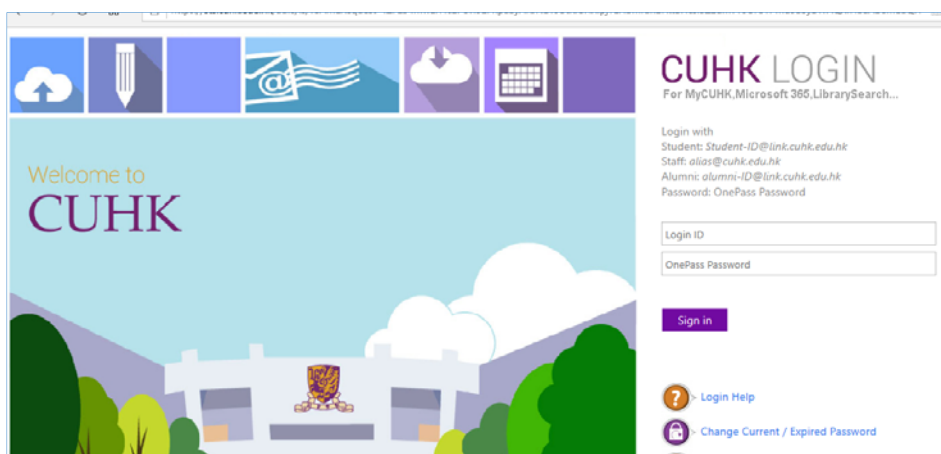
iii. Once you login Duo 2FA Self-Service User Portal, the enrollment process start.

Read the on-screen information carefully. Then click **Start setup**.

iv.   Select the type of your mobile device that you will use to install the DUO 2FA Mobile App.

Important: DUO recommends users to select Mobile phone, as shown on screen, and this require user to provide their phone number in next step. Since no SMS will be sent to your phone and the phone number will not be used, CUHK highly recommends you to select **Tablet**, and click **Continue**.
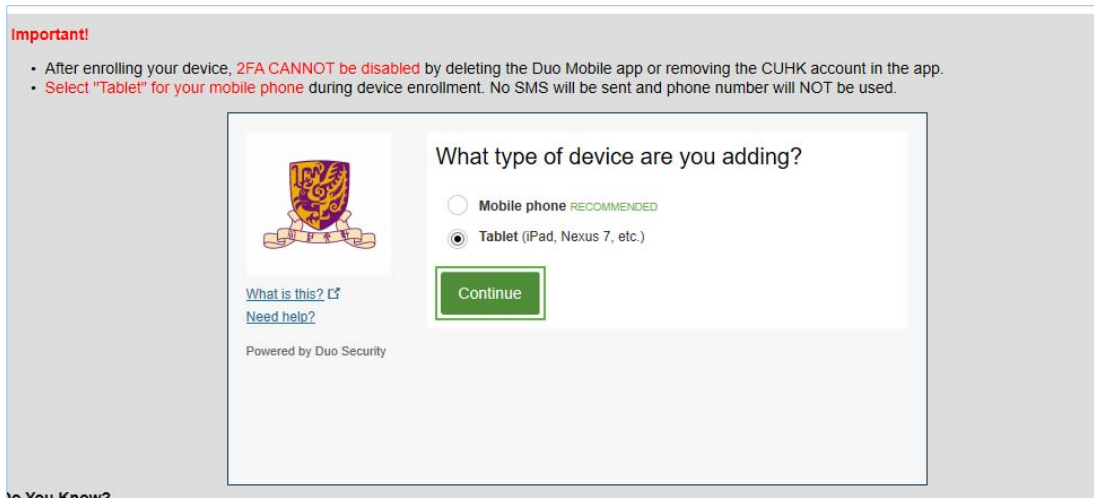
Then select the **type of your tablet**, and click **Continue**.
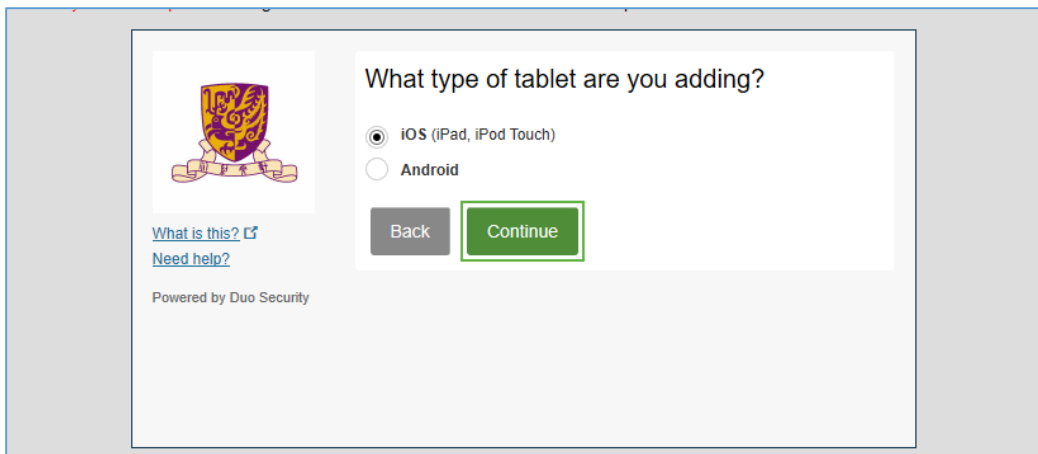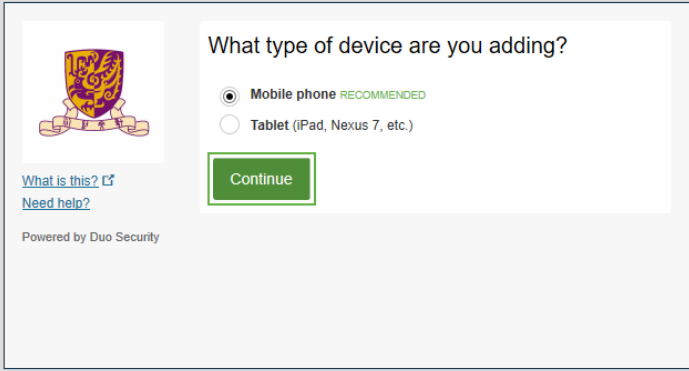
Then, **go to step vi**.

v. If you selected **Mobile phone** in Step iv, click **Continue**:

You need to provide your phone number in this step. Select the correct **location** and input the **phone number** of your mobile phone. **Tick the checkbox**, then click **Continue**.

Then select the **type of your mobile phone**, and click **Continue**.

vi.   Follow the on-screen instructions to **search and install DUO Mobile App** **on your mobile device**.
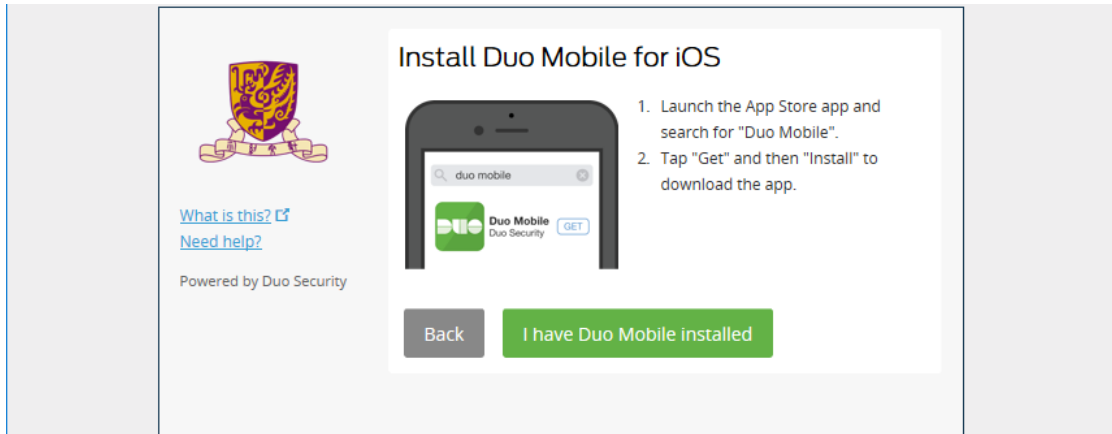
If you are using iOS device:

- o   Open the **App Store** on your mobile, tap **search** and search '**Duo Mobile**'.
- o   Tap '**Get**' and then '**install**' to download and install the app.

If you are using Android device:

- o Open the **Google Play Store** on your mobile, and search '**Duo Mobile**'.
- o Then tap '**install**' to download and install the app.

If you are using Android device bought in China, where **Google Play Store is not available**:

- o **Open** the browser on your mobile, and **download** the Duo Mobile APK directly **from official Duo website, details can be found at https://help.duo.com/s/article/2094?language=en_US**. *Please do not download and install any untrusted APK files into your mobile since they may be altered by hackers for malicious purposes.*
- o After the file is downloaded, open Downloads, tap on the APK file, and tap '**Yes**' when prompted or follow the onscreen instruction for installation, the app will begin installing on your device.

vii. After the mobile app is installed, back to your computer, click **I have Duo Mobile installed**.
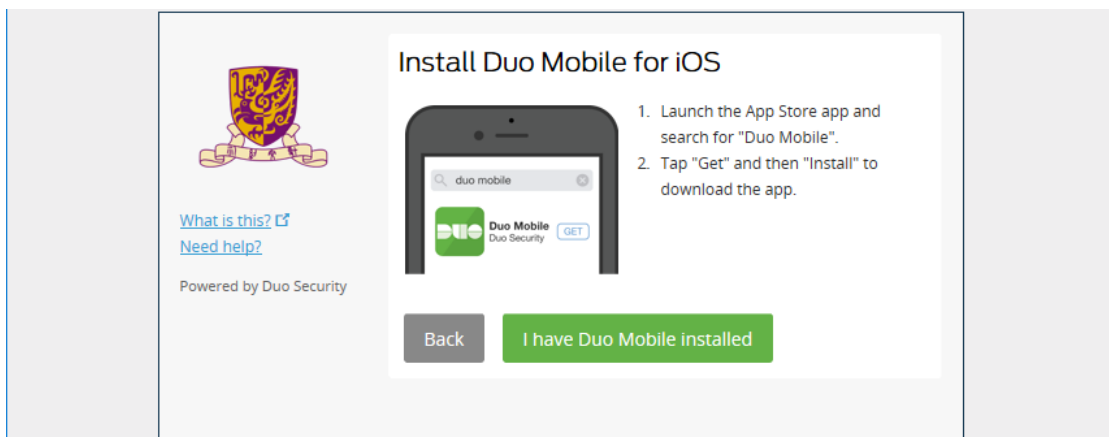
Note: Please make sure to allow the Duo Mobile app to access the camera, otherwise, it would not be able to scan the activation code in next step.
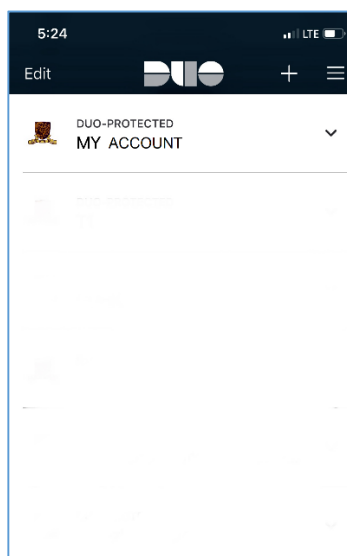
viii. **Follow the on-screen instructions** to activate the Duo Mobile App on your mobile device.
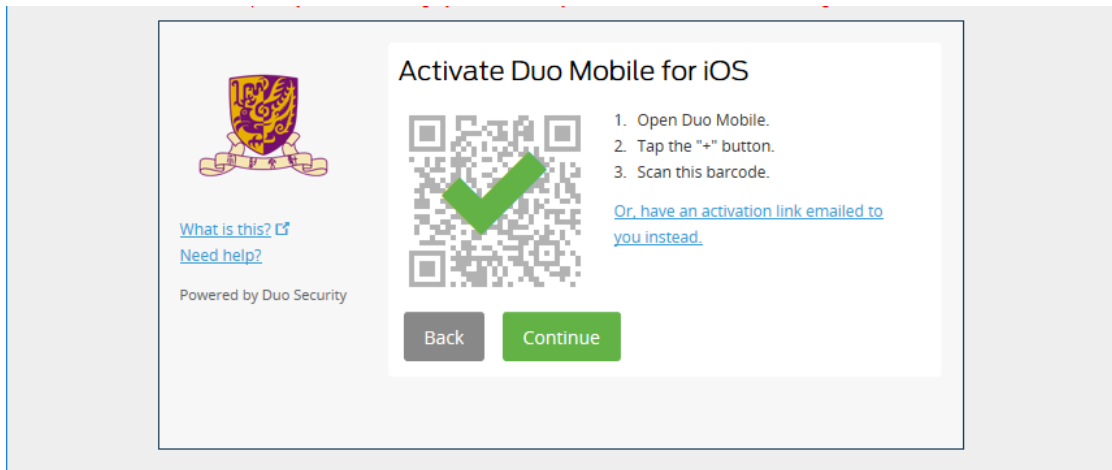

Open the DUO Mobile App on your mobile device, then **tap the '+' button**, then scan the QR code image appear on your screen.
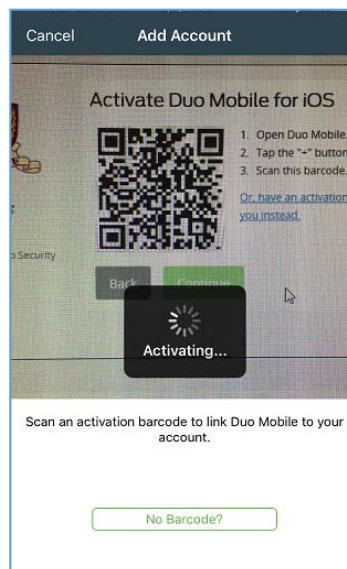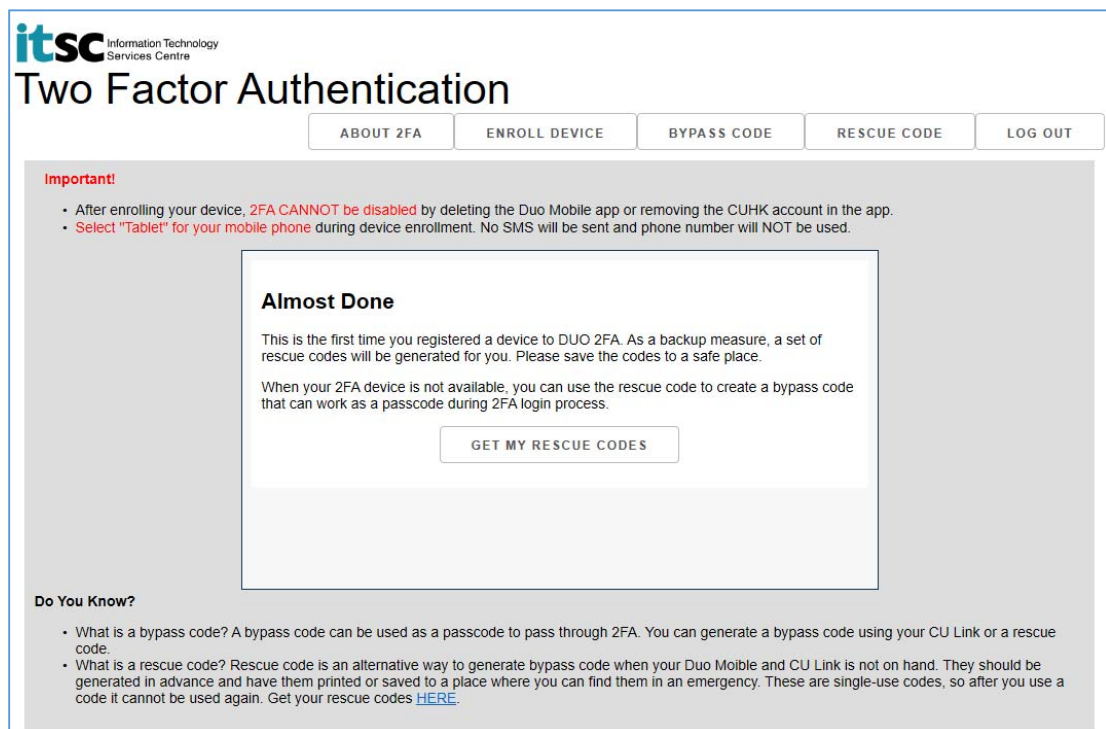

Then, you should find your DUO Mobile App is activated and your account is added into the mobile app.

ix.   Back to the web browser on your computer, once the activation is done, you should find a tick on your screen. Click **Continue**.

x.   Almost done, the following screen should be shown. Please **follow the steps in next Section 2.2** for **Rescue Code Generation**.

2.2. Rescue Code Generation

The Rescue Code provides a backup measure for you to generate a bypass code **when emergency**, i.e. when both your mobile device and CU Link Card are not available. User should generate a set of 5 rescue codes <u>in advance</u> when you can login Duo 2FA Self Service User Portal and keep them in a safe place but where you can find when emergency.
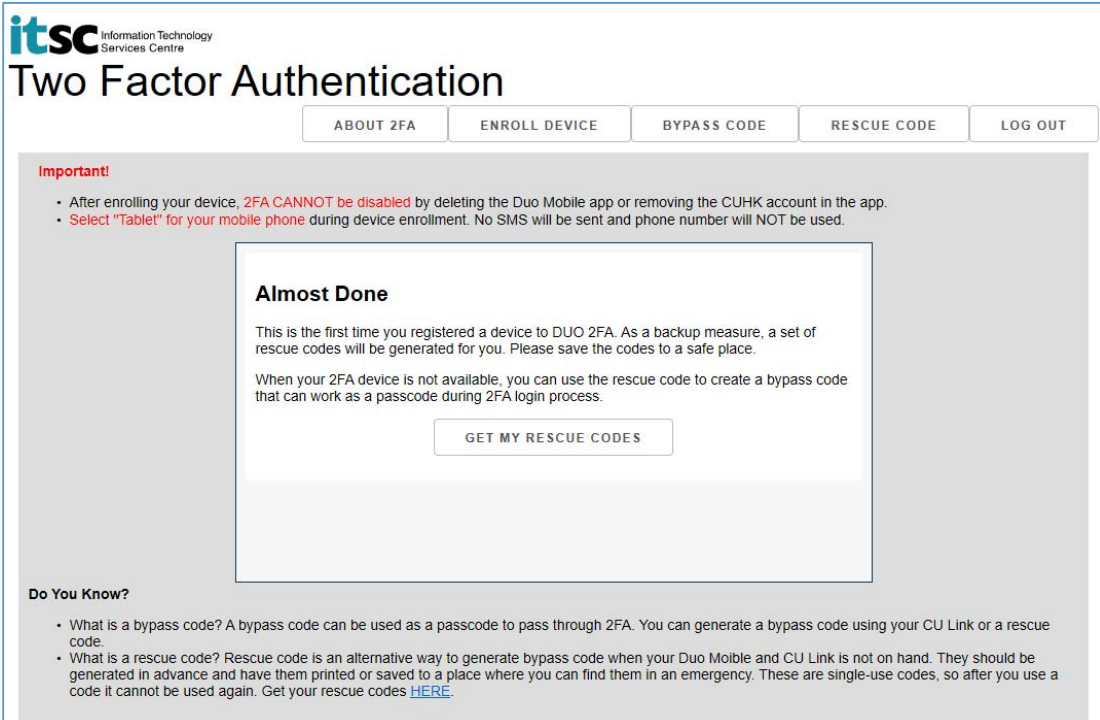
Usage of Rescue Code:
- the rescue code can *ONLY* be used to *generate the bypass code*;
- the rescue code *CANNOT be used as the 2nd factor* to login any 2FA integrated application; and
- each rescue code can only be used *ONCE*.

Steps:
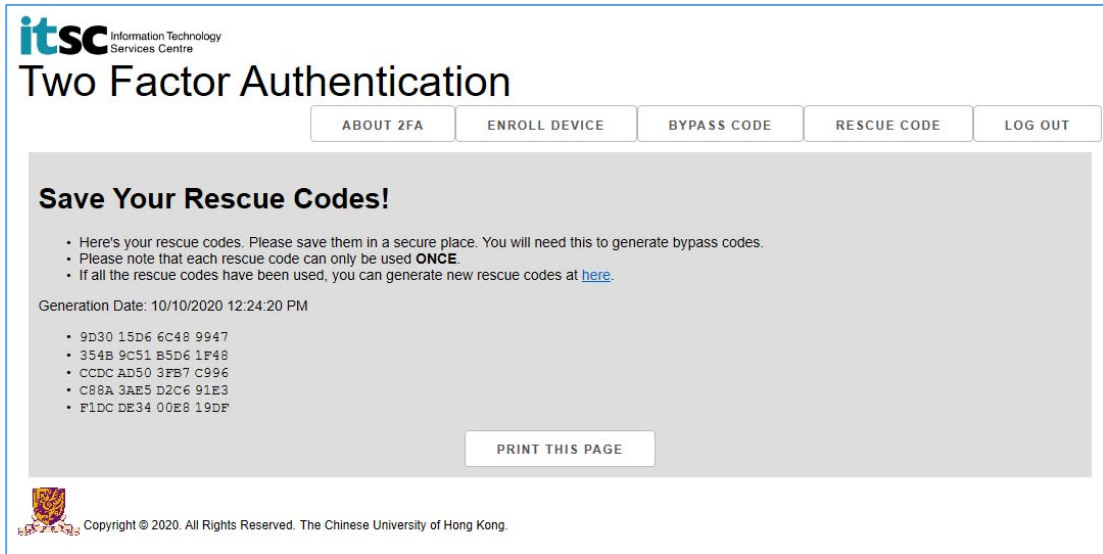
i.   The last step of the enrollment process is to generate the Rescue Code.

Read the on-screen information carefully, then click **GET MY RESCUE CODES**.

ii.   A set of 5 Rescue Codes should be generated. You can save it or print it for keeping.

The enrollment process is finished. You can click the "**ENROLL DEVICES**" button on the top menu to manage or add your registered mobile device(s) and configurate related settings. More details can be found in next section.

The 1st registered mobile device would become the default device for you to use the Duo Mobile App.

3. Configure Settings & Devices

You can view or manage the 2FA settings via the Duo 2FA Self-Service User Portal (https://duo.itsc.cuhk.edu.hk).

Click the "**ENROLL DEVICES**" button on the top menu, the '**My Settings & Devices**' page would be shown. You can:

a. configure the *Device Options*;
b. *add another mobile device(s)* under your account;
c. configure the *default mobile device* to be used when login; and
d. configure the *default authentication method* when you login.
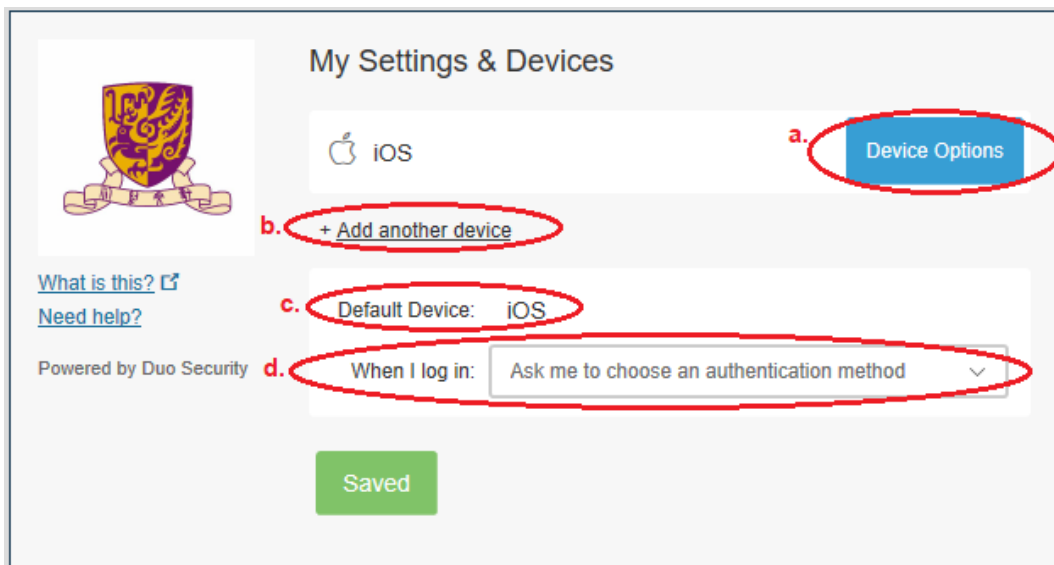
3.1.1. Device Options

Steps:

i.   Click **Device Options** of a device, 3 options are shown:
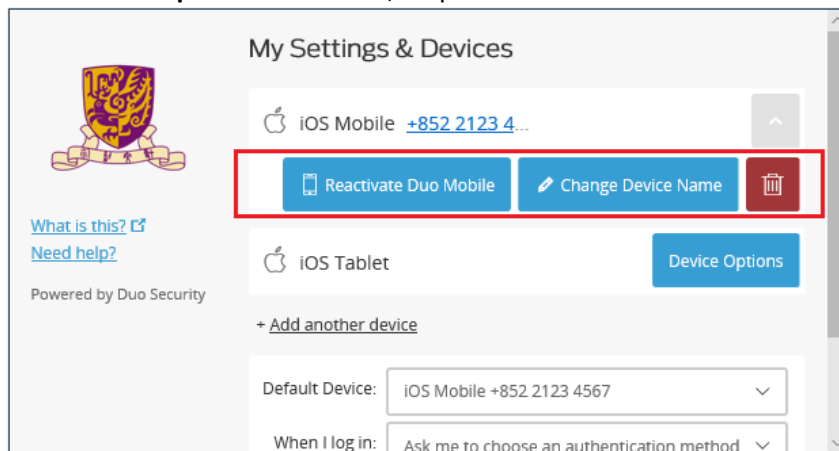

- o   : you can reactivate your Duo Mobile App on your mobile device if your account on the Duo mobile app is removed, or your mobile device is changed.

- o   : you can change the display name of your registered mobile device.

- o   : this option would only be shown if there are <u>more than 1</u> mobile devices registered under the account. It allows you to delete the selected device if it is no more required.

### 3.1.2. Add another device

Steps:

i.   Click **Add another device**, it would restart the enrollment process. Repeat the steps in Section 2.1 to register another mobile device(s).

3.1.3. Default Mobile Device

Steps:

i. After **Default Device**, a drop down list would be shown if you had enrolled for more than 1 mobile devices, you can select one of device as the default device that you want to receive the Duo Push notification or generate the one-time passcode.
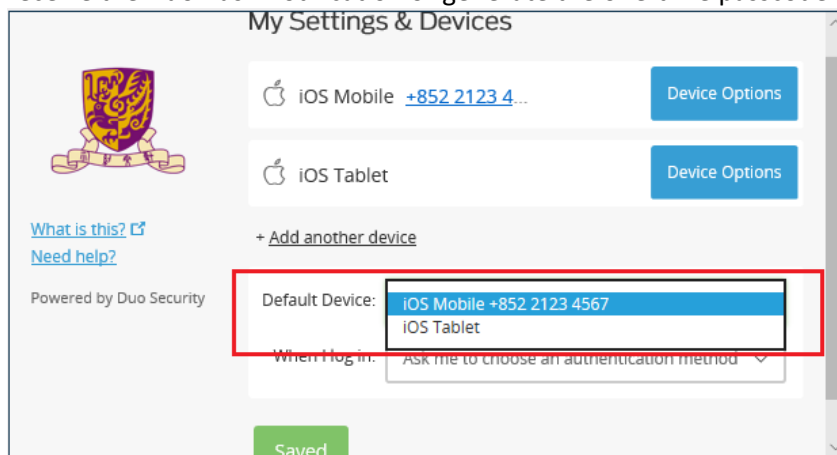
3.1.4. Default Authentication Method

Steps:

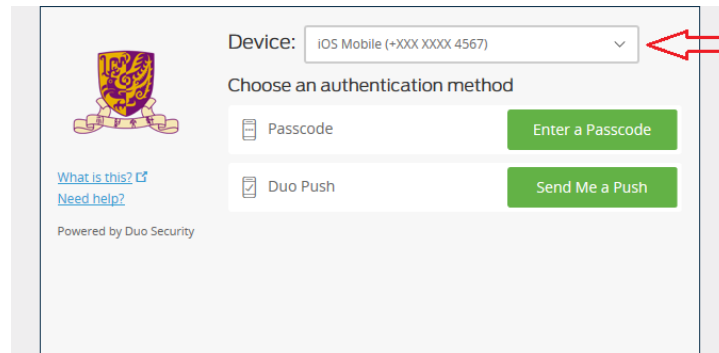i. After **When I log in**, you can select the default authentication method:
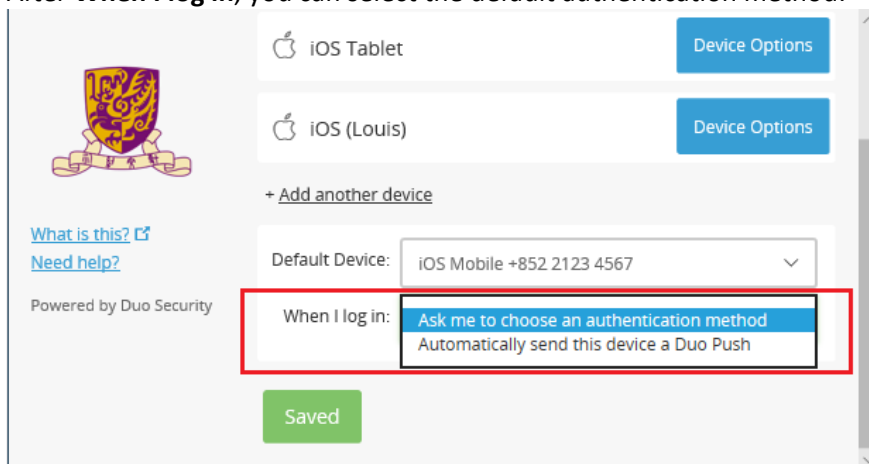
- o **Ask me to choose an authentication method**: every time when you login any DUO 2FA integrated application, you will be asked to choose either one of the authentication methods, i.e. **Duo Push** or **Passcode**.

  - **Duo Push**: it is a push notification which will be sent (pushed) to your default device selected in above.

  - **Passcode**: it is the one-time passcode that is generated from your Duo Mobile App. It can only be used once and valid for a short period, e.g. 1 min.

  (Note: The use of Passcode and Duo Push can be found in next section.)

- o **Automatically send this device a Duo Push**: a Duo Push notification would be sent (pushed) automatically to your default device selected above.

4.   Use of Passcode and Duo Push

Below demonstrates the use of the 2 authentication methods, i.e. **Passcode** and **Duo Push**, for logging in those DUO integrated applications.

Take an example of logging in to the Duo 2FA Self-Service Portal. When you login the portal, you will be asked to choose either one of the authentication method, *Enter a Passcode* or *Send Me a Push*.

Before you click on either one button, **select the mobile device** that you are using to generate the Passcode or receive the Duo Push.
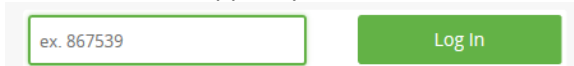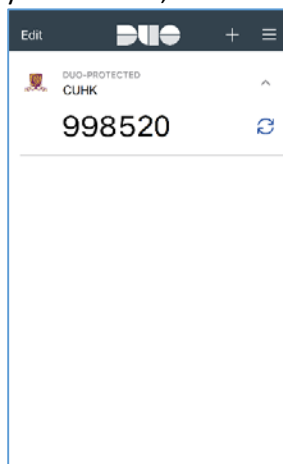

4.1.   Passcode

Steps for using Passcode: *(Note: Network connection on your mobile device is not a must)*

i.   Click **Enter a Passcode**, you will be asked to enter a passcode which is generated from the Duo Mobile App on your selected mobile device.
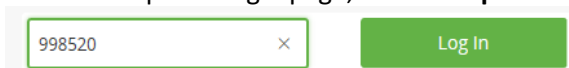

ii.   **Open the DUO Mobile App** on your mobile device, then **tap on the icon** [⌄] next to your account, a one-time passcode is generated.

Please note that each passcode (one-time passcode) can only be used once, and there is a time limit, e.g. 30 seconds, for using each passcode. Once the passcode is expired, you need to regenerate a new one.

iii.   Back to the portal login page, **enter the passcode** above and then click **Log In**.

4.2.   Duo Push

**Steps for using Duo Push:** *(Note: Network connection on your mobile device is required)*

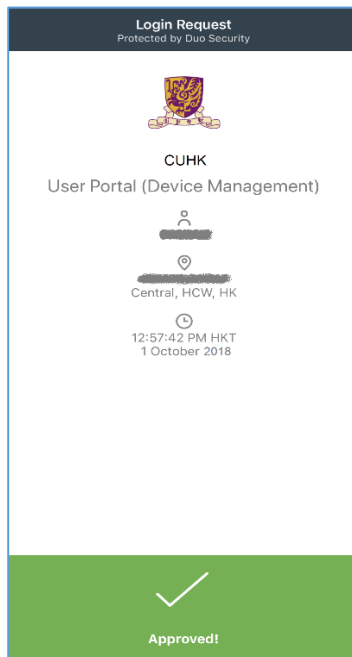i.   Click Send Me a Push, a notification would be pushed to your device.

ii.   **Open the DUO Mobile App** on your mobile device, then **tap on the notification message**, a Login Request with the information of requesting source is displayed.

If the request is initiated by you, **tap Approve**. If it is unexpected, tap Deny.
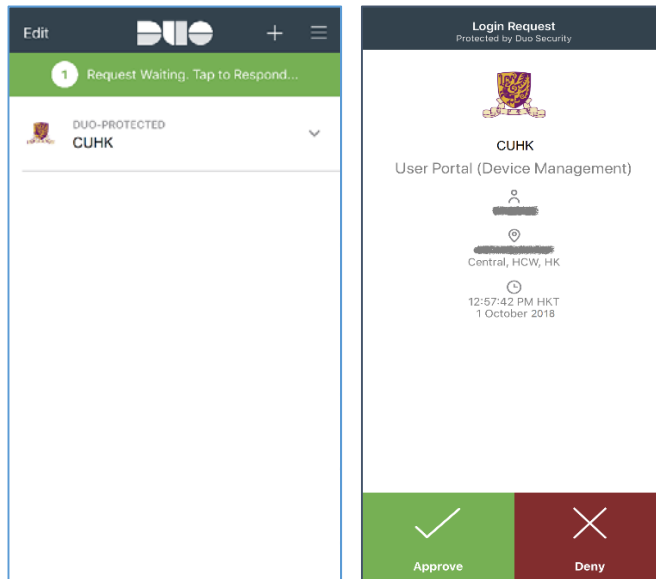
iii.   Once Approve is tapped, the access to login the application is granted.

- END -