

## Annex A – Passkeys Factsheet

Passkeys are a secure, password-free way to log in to services. They use public-private key cryptography to validate that a login is taking place with the legitimate service, while device-based authentication, such as fingerprint and face recognition, verifies the user's identity.

This is how passkeys work:

- **During passkey creation:** A unique digital key pair is generated. The private key is stored securely on the user's device, protected by their biometrics (fingerprint or face recognition) or app passcode. The corresponding public key is registered with Singpass.
- **During passkey logins:** The private key on the user's device creates a cryptographic signature. Singpass verifies this signature against the registered public key in Singpass to validate an official Singpass login. The private key is never shared with Singpass or any other websites. As passkeys are bound to the legitimate Singpass login domain, they cannot be used on fake websites. They will only work with Singpass logins on real government websites and private sector services integrated with Singpass, protecting users against phishing scams.
- **Additional safeguards:** Since the private key never leaves the user's device, and no login credentials (e.g. passwords and OTPs) are entered or transmitted during logins, the risk of credential theft is significantly reduced. When logging into a service on another device with the Singpass app, a proximity check using Bluetooth takes place to ensure that the passkey is only being used for authentication on a nearby device, preventing remote attacks.

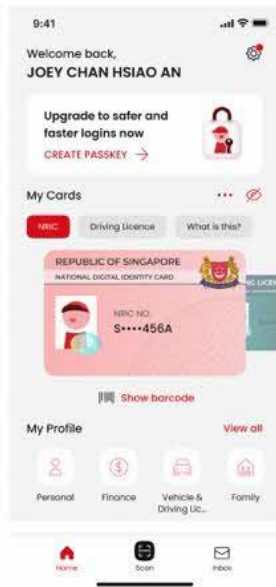
Singpass' passkey implementation uses a device-bound passkey model, with the Singpass app serving as the dedicated credential manager. The key benefit to such a model is that the passkey cannot be shared or transferred via the cloud, preventing it from being exploited for scams.

The steps to create a passkey and use it for logins are as follows:



How to create a passkey in the Singpass app

**1** Open the Singpass app, click on the **“Create Passkey”** banner



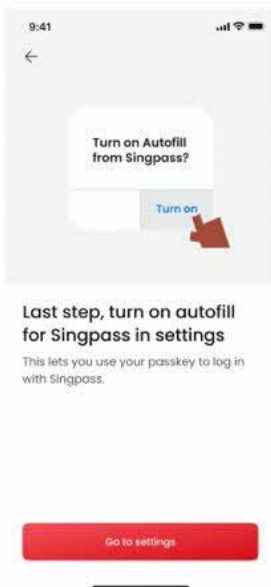
**2** Click on **“Create passkey”**



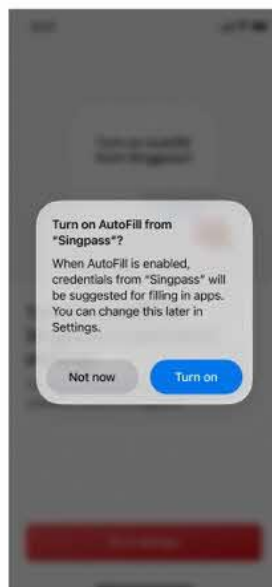
**3** **Passkey creating in progress**



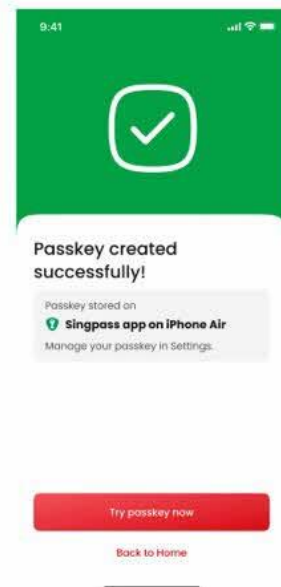
**4** Click on **“Go to settings”** to turn on autofill



**5** Click on **“Turn on”** to continue

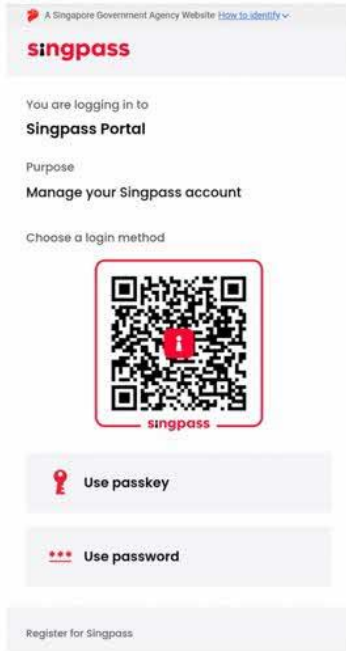


**6** Passkey is **successfully created!**

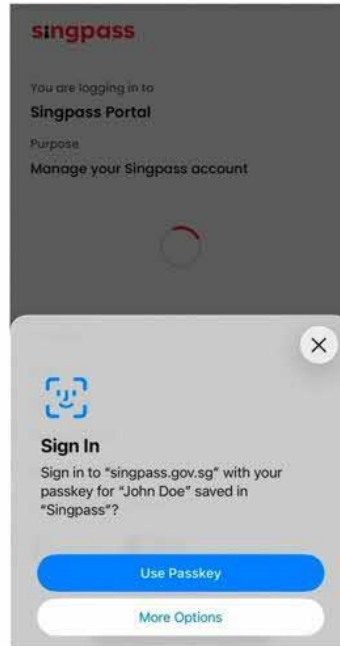


How to log in using your passkey

**1** Tap on **“Use passkey”** to log in



**2** Click on **“Use Passkey”** to proceed.



**3a** Use **Face ID** to complete biometrics



**3b** If biometrics is not set up, you can use **passcode** to proceed.



You have **successfully logged in** to digital services after this step.