Android VPN Setup Guide

Summary

Overall, there are two steps needed to make Android built-in VPN client work with VPN server (***IPsec Service Provider*** model) made by ***vpneveryone.ddns.net***

1. Install certificates exported from VPN server to Android device.
2. Configure Android VPN type to "***IKEv2/IPSec RSA***".

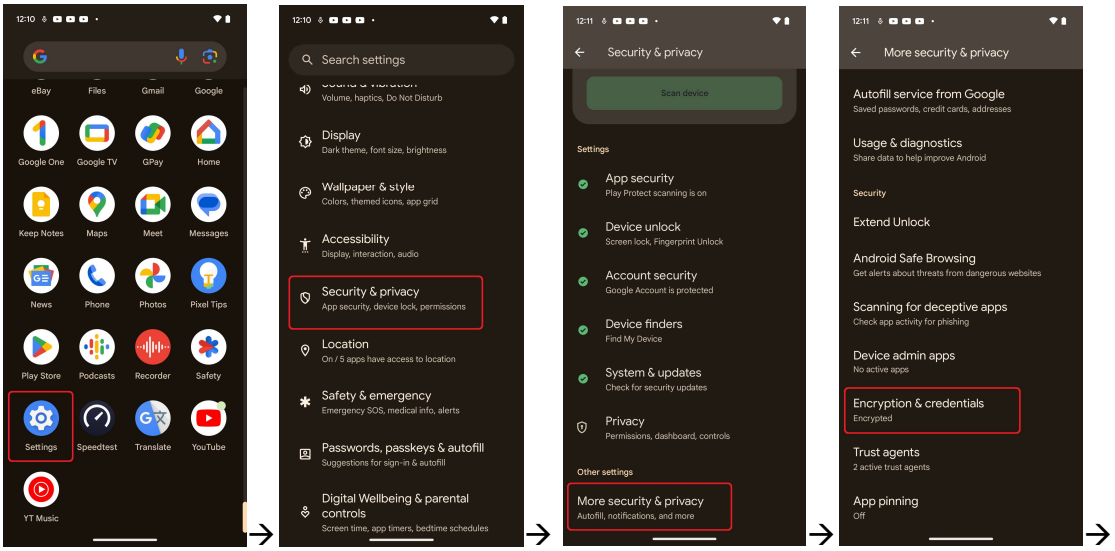
Step 1, Install Certificates

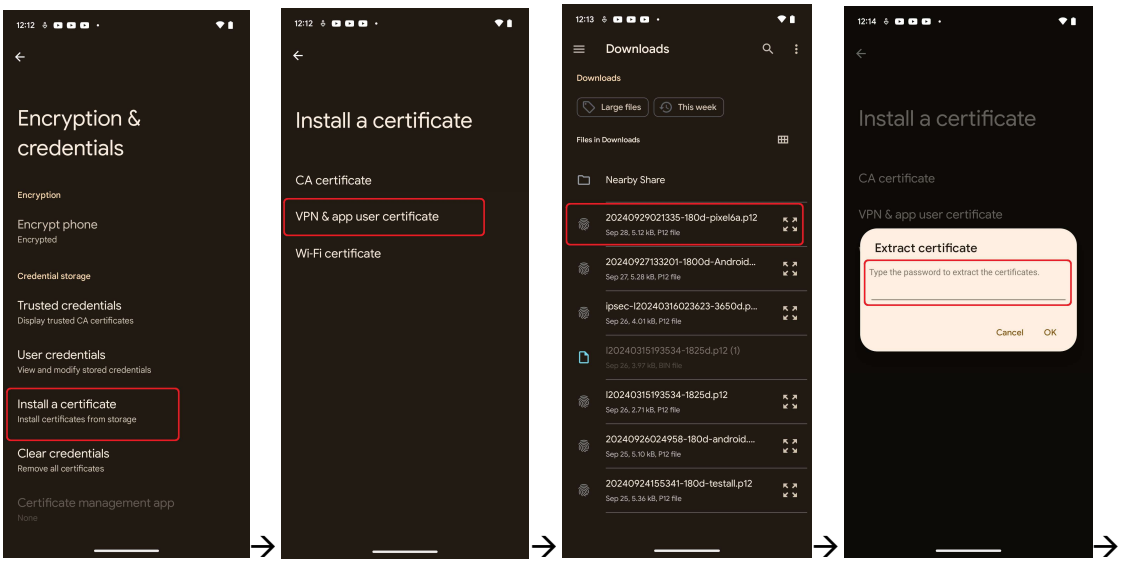
You should have received a certificate package with file name in such format ***YYYYMMDDhhmmss-xxxxd-username.p12*** , e.g. ***20240929021335-180d-pixel6a.p12***

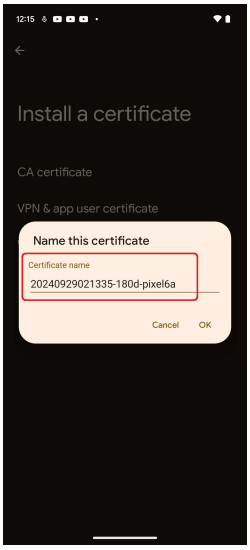
The instructions & screenshots below are based on "***Google Pixel 6a with Android version 14***". Setup on your version Android may vary.

1. Find a way to transfer this file to your Android device. E.g. email attachment, microSD card, attach to PC by USB, or google drive, etc.
2. On your Android device, tap the "***Setting***" app, and then follow the menu path: "***Security & privacy***" → "***More security & privacy***" → "***Encryption & credentials***" → "***Install a certificate***" → "***VPN & app user certificate***" → select the ***.p12*** file you transferred to in your Android device at step 1 above.
3. When asked for "***Type the password to extract the certificates***", use the username part of the .p12 file name, e.g. if you ***20240929021335-180d-pixel6a.p12***from your VPN service provider, use ***pixel6a*** as password.
4. In next screen "***Name this certificate***", just tap OK to use the default name. That finishes importing the certificate.

Below are the screenshots for the steps above.


eBay
Files
Gmail
Google
Google One
Google TV
GPay
Home
Keep Notes
Maps
Meet
Messages
News
Phone
Photos
Pixel Tips
Play Store
Podcasts
Recorder
Safety
Settings
Speedtest
Translate
YouTube
YT Music
Search settings
Volume, haptics, Do Not Disturb
Display
Dark theme, font size, brightness
Wallpaper & style
Colors, themed icons, app grid
Accessibility
Display, interaction, audio
Security & privacy
App security, device lock, permissions
Location
On / 5 apps have access to location
Safety & emergency
Emergency SOS, medical info, alerts
Passwords, passkeys & autofill
Suggestions for sign-in & autofill
Digital Wellbeing & parental controls
Screen time, app timers, bedtime schedules
Security & privacy
Scan device
Settings
App security
Play Protect scanning is on
Device unlock
Screen lock, Fingerprint Unlock
Account security
Google Account is protected
Device finders
Find My Device
System & updates
Check for security updates
Privacy
Permissions, dashboard, controls
Other settings
More security & privacy
Autofill, notifications, and more
More security & privacy
Autofill service from Google
Saved passwords, credit cards, addresses
Usage & diagnostics
Share data to help improve Android
Security
Extend Unlock
Android Safe Browsing
Get alerts about threats from dangerous websites
Scanning for deceptive apps
Check app activity for phishing
Device admin apps
No active apps
Encryption & credentials
Encrypted
Trust agents
2 active trust agents
App pinning
Off


Encryption & credentials
Encryption
Encrypt phone
Encrypted
Credential storage
Trusted credentials
Display trusted CA certificates
User credentials
View and modify stored credentials
Install a certificate
Install certificates from storage
Clear credentials
Remove all certificates
Certificate management app
None
Install a certificate
CA certificate
VPN & app user certificate
Wi-Fi certificate
Downloads
Downloads
Large files
This week
Files in Downloads
Nearby Share
20240929021335-180d-pixel6a.p12
Sep 28, 5.12 kB, P12 file
20240927133201-1800d-Android...
Sep 27, 5.28 kB, P12 file
ipsec-I20240316023623-3650d.p...
Sep 26, 4.01 kB, P12 file
I20240315193534-1825d.p12 (1)
Sep 26, 3.97 kB, BIN file
I20240315193534-1825d.p12
Sep 26, 2.71 kB, P12 file
20240926024958-180d-android....
Sep 25, 5.10 kB, P12 file
20240924155341-180d-testall.p12
Sep 25, 5.36 kB, P12 file
Install a certificate
CA certificate
VPN & app user certificate
Extract certificate
Type the password to extract the certificates.
Cancel
OK

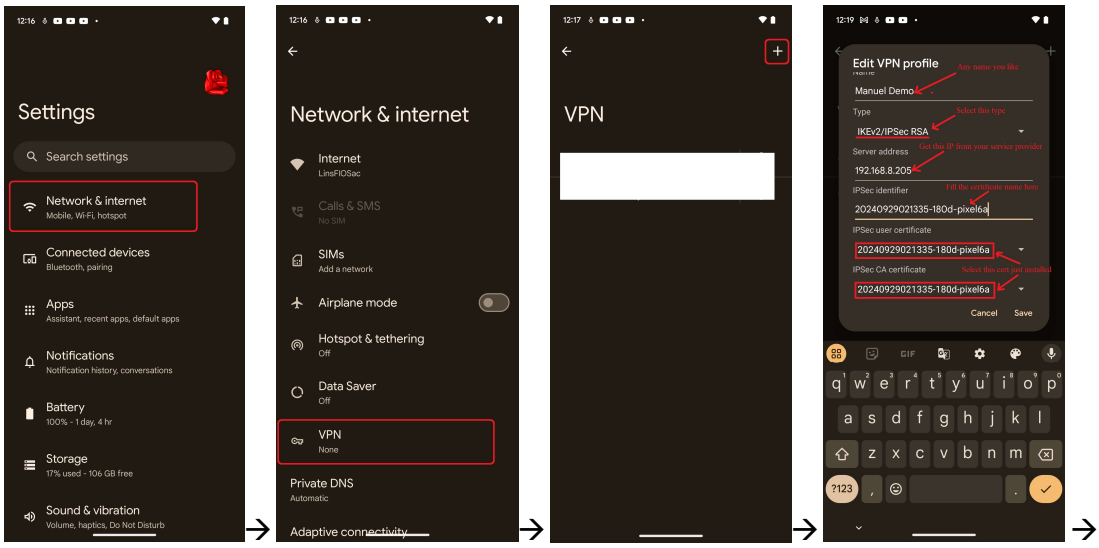

Install a certificate
CA certificate
VPN & app user certificate
Name this certificate
Certificate name
20240929021335-180d-pixel6a
Cancel
OK

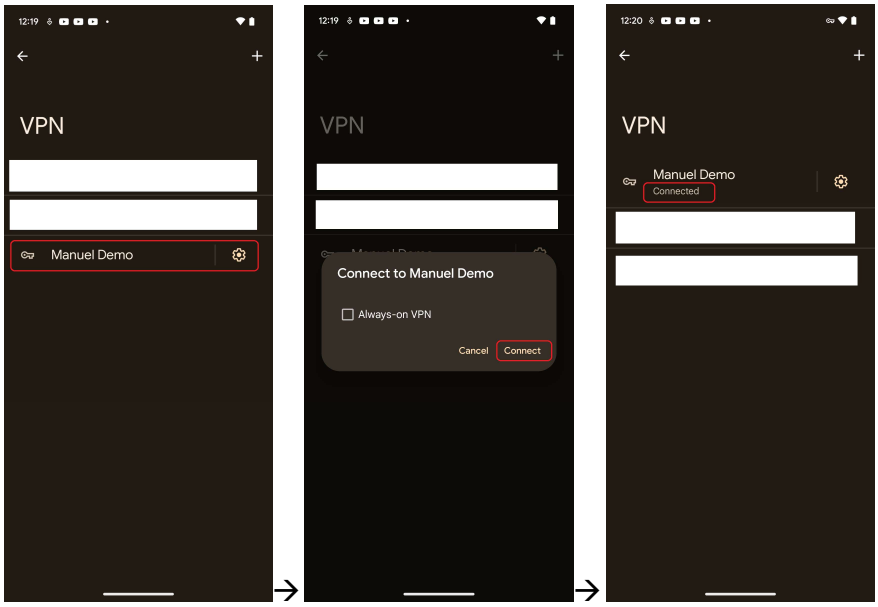
Step 2, Configure Android VPN Client

You don't need to install any VPN app to run this VPN service. This is especially useful for users in countries where their local governments block the Google Play Store, or limit downloading VPN apps.

1. On your Android device, tap the "***Setting***" app, and then follow the menu path: "***Network & internet***" → "***VPN***" → "***+***" →
    - Fill in any string you like for "***Name***" field. E.g. "***Manual Demo***"
    - Select "***IKEv2/IPSec RSA***" for "***Type***".
    - Ask your VPN service provider for the "***Server address***" and fill it in here.
    - Select the certificate you installed in earlier section "***Step 1, Install Certificates***" for "***IPSec user certificate***" e.g. ***20240929021335-180d-pixel6a.p12***
    - Select the certificate you installed in earlier section "***Step 1, Install Certificates***" for "***IPSec CA certificate***". (Not a typo, the certificate package installed in step 1 contains user certificate and CA certificate)
    - Type in "***IPSec identifier***" field, the certificate name without .p12 part. (Note: Older version Android does ***not*** have this field, e.g. Android version 8.0.0)
    - Use the default option "***Received from server***" for "***IPSec server certificate***"
    - Tap "***Save***" to finish setting up Android VPN client.
    - Tap the VPN connection just configured and then tap "***Connect***" to connect to VPN server.

Below are the screenshots for the steps above. They are are based on "***Google Pixel 6a with Android version 14***". Setup on your version Android may vary.




12:19
VPN
Manuel Demo
12:19
VPN
Connect to Manuel Demo
Always-on VPN
Cancel
Connect
12:20
VPN
Manuel Demo
Connected