

Android Wallet Core SDK Guide

This document is a guide for using the OpenDID Wallet Core SDK, providing functions to generate, store, and manage the keys, DID Document, and Verifiable Credential (VC) information required for Open DID.


S/W Specifications

Component	Requirement
OS	Android 13
Language	Java 17
IDE	Android Studio 4
Build System	Gradle 8.2
Compatibility	Android API level 33 or higher

Build Method

: Execute the export JAR task in the build.gradle file of this SDK project to generate a JAR file.

1. Open the project's `build.gradle` file and add the following `export JAR` task.

```
ext {    version = "1.0.0"}task exportJar(type: Copy){From
```

2. Open the `Gradle` window in Android Studio, and run the `Tasks > other > exportJar` task of the project.

3. Once the execution is complete, the `opendid-core-sdk-aos-1.0.0.jar` file will be generated in the `release/` folder.

SDK Application Method

1. Copy the `opendid-core-sdk-aos-1.0.0.jar` file to the libs of the app project.
2. Add the following dependencies to the build.gradle of the app project.

```
implementation files('libs/opendid-core-sdk-aos-1.0.0.jar')
```

3. Sync `Gradle` to ensure the dependencies are properly added.

API Specification

Classification	API Document Link
KeyManager	Wallet Core SDK - KeyManager API
DIDManager	Wallet Core SDK - DIDManager API
VCManager	Wallet Core SDK - VCManager API
SecureEncryptor	Wallet Core SDK - SecureEncryptor API
ErrorCode	Error Code

KeyManager

KeyManager provides the functionality to generate and manage key pairs for signing and store them securely.

The main features are as follows:

- **Key Generation:** Generates a new key pair.
- **Key Storage:** Securely stores the generated key.

- **Key Retrieval:** Retrieves the stored key.
- **Key Deletion:** Deletes the stored key.

DIDManager

DIDManager provides the functionality to generate and manage DID Documents.

The main features are as follows:

- **DID Generation:** Generates a new DID.
- **DID Document Management:** Creates, updates, and deletes DID Documents.
- **DID Document Retrieval:** Retrieves information about DID Documents.

VCManager

VCManager provides the functionality to manage and store Verifiable Credentials (VC).

The main features are as follows:

- **VC Storage:** Securely stores the generated VC.
- **VC Retrieval:** Retrieves the stored VC.
- **VC Deletion:** Deletes the stored VC.

SecureEncryptor

SecureEncryptor provides the functionality to encrypt and decrypt data using the Keystore.

The main features are as follows:

- **Data Encryption:** Securely encrypts the data.
- **Data Decryption:** Decrypts the encrypted data.