

# Summary of Mobile Application Security Test

This application was tested 6 times during the last 12 months.



App version 2.0.1

App ID com.mysmilepay.app

Device type android

Test started Jun 22nd, 2023 06:30:22 GMT+0

Test finished Jun 22nd, 2023 06:40:33 GMT+0

Test runtime 10 minutes

APK source User upload





OWASP Mobile Top 10 Security Test

**6 MAJOR RISKS FOUND** 



Mobile App External Communications

**NOT FOUND** 



Software Composition Analysis

**21 COMPONENTS FOUND** 



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Software Composition Analysis



Dark Web **Monitoring** 



**Third-Party Risk Management** 





**Web Penetration Testing** 







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# Mobile Application Permissions and Privacy Test

# **Privacy Policy**

Privacy Policy was not found in application

Misconfiguration or weakness

# **Mobile Application Permissions**

The mobile application requests the following permissions that may endanger user's privacy under certain circumstances:

ACCESS\_COARSE\_LOCATION

dangerous

Access coarse location sources, such as the mobile network database, to determine an approximate phone location, where available. Malicious applications can use this to determine approximately where you are.

ACCESS\_FINE\_LOCATION

dangerous

Access fine location sources, such as the Global Positioning System on the phone, where available. Malicious applications can use this to determine where you are and may consume additional battery power.

**CAMERA** 

dangerous

Allows application to take pictures and videos with the camera. This allows the application to collect images that the camera is seeing at any time.

READ EXTERNAL STORAGE

dangerous

Allows an application to read from external storage.

READ\_PHONE\_NUMBERS

dangerous

Allows read access to the device's phone number(s). This is a subset of the capabilities granted by READ\_PHONE\_STATE but is exposed to instant applications.

READ\_PHONE\_STATE

dangerous

Allows the application to access the phone features of the device. An application with this permission can determine the phone number and serial number of this phone, whether a call is active, the number that call is connected to and so on.

WRITE\_EXTERNAL\_STORAGE

dangerous

Allows an application to write to external storage.

ACCESS\_NETWORK\_STATE

normal

Allows an application to view the status of all networks.

ACCESS\_WIFI\_STATE

normal

Allows an application to view the information about the status of Wi-Fi.

CHANGE\_WIFI\_STATE

normal

Allows an application to connect to and disconnect from Wi-Fi access points and to make changes to configured Wi-Fi networks.

**INTERNET** 

normal

Allows an application to create network sockets.

QUERY\_ALL\_PACKAGES

normal

Allows query of any normal app on the device, regardless of manifest declarations.

USE\_BIOMETRIC

normal

Allows an app to use device supported biometric modalities.

**USE\_FINGERPRINT** 

normal

This constant was deprecated in API level 28. Applications should request USE\_BIOMETRIC instead.

**VIBRATE** 

normal

Allows the application to control the vibrator.

WAKE\_LOCK

normal

Allows an application to prevent the phone from going to sleep.

# **Other Permissions**

READ\_PRIVILEGED\_PHONE\_STATE

unknown

Other permission

# **OWASP Mobile Top 10 Security Test**

The automated audit revealed the following security flaws and weaknesses that may impact the application:

O 2 4 5 8 WARNING

# **CLEARTEXT SQLITE DATABASE [DAST] [M2] [CWE-312]**

HIGH

# **Description:**

The mobile application uses an unencrypted SQLite database.

This database can be accessed by an attacker with physical access to the mobile device or a malicious application with root access to the device.

The application should not store sensitive information in clear text.

#### In file com.google.android.datatransport.events:

TABLES:
android\_metadata
events
event\_metadata
transport\_contexts
events\_backend\_id
contexts\_backend\_priority\_extras
event\_payloads
sqlite\_autoindex\_event\_payloads\_1
log\_event\_dropped
sqlite\_autoindex\_log\_event\_dropped\_1
global\_log\_event\_state
sqlite\_autoindex\_global\_log\_event\_state\_1

### RAW DUMP:

CREATE TABLE android\_metadata (locale TEXT); CREATE TABLE events (\_id INTEGER PRIMARY KEY, context\_id INTEGER NOT NULL, transport\_name TEXT NOT NULL, timestamp\_ms INTEGER NOT NULL, uptime\_ms INTEGER NOT NULL, payload BLOB NOT NULL, code INTEGER, num\_attempts INTEGER NOT NULL, payload\_encoding TEXT, inline BOOLEAN NOT NULL DEFAULT 1, FOREIGN KEY (context\_id) REFERENCES transport\_contexts(\_id) ON DELETE CASCADE); CREATE TABLE event\_metadata (\_id INTEGER PRIMARY KEY, event\_id INTEGER NOT NULL, name TEXT NOT NULL, value TEXT NOT NULL, FOREIGN KEY (event\_id) REFERENCES events(\_id) ON DELETE CASCADE); CREATE TABLE transport\_contexts (\_id INTEGER PRIMARY KEY, backend\_name TEXT NOT NULL, priority INTEGER NOT NULL, next\_request\_ms INTEGER NOT NULL, extras BLOB); CREATE INDEX events\_backend\_id on events(context\_id); CREATE UNIQUE INDEX contexts\_backend\_priority\_extras on transport\_contexts(backend\_name, priority, extras); CREATE TABLE event\_payloads (sequence\_num INTEGER NOT NULL, event\_id

INTEGER NOT NULL, bytes BLOB NOT NULL, FOREIGN KEY (event\_id) REFERENCES events(\_id) ON DELETE CASCADE, PRIMARY KEY (sequence\_num, event\_id)); CREATE TABLE log\_event\_dropped (log\_source VARCHAR(45) NOT NULL, reason INTEGER NOT NULL, events\_dropped\_count BIGINT NOT NULL, PRIMARY KEY(log\_source, reason)); CREATE TABLE global\_log\_event\_state (last\_metrics\_upload\_ms BIGINT PRIMARY KEY);

#### In file Web Data:

```
TABLES:
meta
sqlite_autoindex_meta_1
autofill
sqlite_autoindex_autofill_1
autofill_name
autofill_name_value_lower
credit_cards
sqlite_autoindex_credit_cards_1
autofill_profiles
sqlite_autoindex_autofill_profiles_1
autofill_profile_names
autofill_profile_emails
autofill_profile_phones
autofill_profiles_trash
masked_credit_cards
unmasked_credit_cards
server_card_metadata
server_addresses
server_address_metadata
autofill_sync_metadata
sqlite_autoindex_autofill_sync_metadata_1
autofill_model_type_state
```

#### RAW DUMP:

CREATE TABLE meta(key LONGVARCHAR NOT NULL UNIQUE PRIMARY KEY, value LONGVARCHAR); CREATE TABLE autofill (name VARCHAR, value VARCHAR, value\_lower VARCHAR, date\_created INTEGER DEFAULT 0, date\_last\_used INTEGER DEFAULT 0, count INTEGER DEFAULT 1, PRIMARY KEY (name, value)); CREATE INDEX autofill\_name ON autofill (name);CREATE INDEX autofill\_name\_value\_lower ON autofill (name, value\_lower); CREATE TABLE credit\_cards ( quid VARCHAR PRIMARY KEY, name\_on\_card VARCHAR, expiration\_month INTEGER, expiration\_year INTEGER, card\_number\_encrypted BLOB, date\_modified INTEGER NOT NULL DEFAULT 0, origin VARCHAR DEFAULT '', use\_count INTEGER NOT NULL DEFAULT 0, use\_date INTEGER NOT NULL DEFAULT 0, billing\_address\_id VARCHAR); CREATE TABLE autofill\_profiles ( quid VARCHAR PRIMARY KEY, company\_name VARCHAR, street\_address VARCHAR, dependent\_locality VARCHAR, city VARCHAR, state VARCHAR, zipcode VARCHAR, sorting\_code VARCHAR, country\_code VARCHAR, date\_modified INTEGER NOT NULL DEFAULT 0, origin VARCHAR DEFAULT '', language\_code VARCHAR, use\_count INTEGER NOT NULL DEFAULT 0, use\_date INTEGER NOT NULL DEFAULT 0, validity\_bitfield UNSIGNED NOT NULL DEFAULT 0);CREATE TABLE autofill\_profile\_names ( guid VARCHAR, first\_name VARCHAR, middle\_name VARCHAR, last\_name VARCHAR, full\_name VARCHAR); CREATE TABLE autofill\_profile\_emails ( guid VARCHAR, email VARCHAR); CREATE TABLE autofill\_profile\_phones ( guid VARCHAR,

number VARCHAR); CREATE TABLE autofill\_profiles\_trash ( guid VARCHAR); CREATE TABLE masked\_credit\_cards (id VARCHAR, status VARCHAR, name\_on\_card VARCHAR, network VARCHAR, last\_four VARCHAR, exp\_month INTEGER DEFAULT 0, exp\_year INTEGER DEFAULT 0, bank name VARCHAR, type INTEGER DEFAULT 0); CREATE TABLE unmasked credit cards (id VARCHAR, card\_number\_encrypted VARCHAR, use\_count INTEGER NOT NULL DEFAULT 0, use\_date INTEGER NOT NULL DEFAULT 0, unmask\_date INTEGER NOT NULL DEFAULT 0);CREATE TABLE server\_card\_metadata (id VARCHAR NOT NULL, use\_count INTEGER NOT NULL DEFAULT 0, use\_date INTEGER NOT NULL DEFAULT 0, billing\_address\_id VARCHAR); CREATE TABLE server\_addresses (id VARCHAR, company\_name VARCHAR, street\_address VARCHAR, address\_1 VARCHAR, address\_2 VARCHAR, address\_3 VARCHAR, address\_4 VARCHAR, postal\_code VARCHAR, sorting\_code VARCHAR, country\_code VARCHAR, language\_code VARCHAR, recipient\_name VARCHAR, phone\_number VARCHAR); CREATE TABLE server\_address\_metadata (id VARCHAR NOT NULL, use\_count INTEGER NOT NULL DEFAULT 0, use\_date INTEGER NOT NULL DEFAULT 0, has\_converted BOOL NOT NULL DEFAULT FALSE); CREATE TABLE autofill\_sync\_metadata (model\_type INTEGER NOT NULL, storage\_key VARCHAR NOT NULL, value BLOB, PRIMARY KEY (model\_type, storage\_key));CREATE TABLE autofill\_model\_type\_state (model\_type INTEGER NOT NULL PRIMARY KEY, value BLOB);

#### In file Cookies:

TABLES:

meta

sqlite\_autoindex\_meta\_1

cookies

sqlite\_autoindex\_cookies\_1

#### RAW DUMP:

CREATE TABLE meta(key LONGVARCHAR NOT NULL UNIQUE PRIMARY KEY, value LONGVARCHAR); CREATE TABLE cookies (creation\_utc INTEGER NOT NULL, host\_key TEXT NOT NULL, name TEXT NOT NULL, value TEXT NOT NULL, path TEXT NOT NULL, expires\_utc INTEGER NOT NULL, is\_secure INTEGER NOT NULL, is\_httponly INTEGER NOT NULL, last\_access\_utc INTEGER NOT NULL, has\_expires INTEGER NOT NULL DEFAULT 1, is\_persistent INTEGER NOT NULL DEFAULT 1, priority INTEGER NOT NULL DEFAULT 1, encrypted\_value BLOB DEFAULT '', firstpartyonly INTEGER NOT NULL DEFAULT 0, UNIQUE (host\_key, name, path));

### CVSSv3 Base Score:

7.1 (AV:L/AC:L/PR:L/UI:N/S:U/C:H/I:H/A:N)

# **EXTERNAL DATA IN SQL QUERIES [SAST] [M7] [CWE-89]**

HIGH

## Description:

Inclusion of input into raw SQL queries can potentially lead to a local SQL injection vulnerability in the mobile application, resuting in the compromise of any sensitive information stored within databse files. The correct approach is to use prepared SQL statements beyond user's control.

### Example of secure code:

# Example of insecure code:

There is 'execSQL()' found in file 'dw/GX.java':

There is 'execSQL()' found in file 'dw/C0680yl.java':

There is 'execSQL()' found in file 'com/raonsecure/oms/asm/api/dialog/ui/pin/PinDBHelper.java':

There is 'execSQL()' found in file 'com/raonsecure/common/history/OPHistoryDBHelper.java':

```
[line 56: insert.append(RSLogger.G("YK\u001cG\r\u0016B"));] \\ [line 57: sQLiteDatabase.execSQL(insert.toString());] \\ [line 58: OnePassLogger.d(f, pat_g.G("3\u0005\u001f\u00199\n(\u0000e"), RSLogger.G("\u001cQ\u001d"));] \\ [line 58: OnePassLogger.d(f, pat_g.G("3\u0005\u0001f\u00199\n(\u0000e"), RSLogger.G("\u001cQ\u001d"));] \\ [line 58: OnePassLogger.d(f, pat_g.G("3\u00005\u0001f\u000199\n(\u0000e"), RSLogger.G("\u0001cQ\u0001d"));] \\ [line 58: OnePassLogger.d(f, pat_g.G("3\u00005\u0001f\u0001f\u000199\n(\u0000e"), RSLogger.G("\u0001cQ\u0001d"));] \\ [line 58: OnePassLogger.d(f, pat_g.G("3\u00005\u0001f\u0001f\u000199\n(\u0000e"), RSLogger.G("\u0001cQ\u0001d"));] \\ [line 58: OnePassLogger.d(f, pat_g.G("3\u00005\u0001f\u0001f\u000199\n(\u0000e"), RSLogger.G("\u0001cQ\u0001d"));] \\ [line 58: OnePassLogger.d(f, pat_g.G("3\u00005\u0001f\u0001f\u000199\n(\u0001cQ\u0001d"));] \\ [line 58: OnePassLogger.d(f, pat_g.G("3\u00005\u0001f\u0001f\u000199\n(\u0001cQ\u0001d"));] \\ [line 58: OnePassLogger.d(f, pat_g.G("3\u00005\u0001f\u0001f\u000199\n(\u0001cQ\u0001d"));] \\ [line 58: OnePassLogger.d(f, pat_g.G("3\u00005\u0001f\u0001f\u000199\u0001f\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\u0001b\
```

There is 'execSQL()' found in file 'com/raonsecure/touchen/onepass/sdk/tokenmanager/op\_i.java':

There is 'rawQuery()' found in file 'com/raonsecure/oms/asm/api/dialog/ui/pin/PinDBHelper.java':

There is 'rawQuery()' found in file 'com/raonsecure/common/history/OPHistoryDBHelper.java':

There is 'rawQuery()' found in file 'com/raonsecure/touchen/onepass/sdk/tokenmanager/op\_i.java':

#### CVSSv3 Base Score:

7.3 (AV:N/AC:L/PR:N/UI:N/S:U/C:L/I:L/A:L)

#### Reference:

- https://developer.android.com/reference/android/database/sqlite/SQLiteDatabase.html
- <a href="https://developer.android.com/reference/java/sql/PreparedStatement.html">https://developer.android.com/reference/java/sql/PreparedStatement.html</a>

# **EXPOSURE OF POTENTIALLY SENSITIVE DATA [DAST] [M2] [CWE-200]**

**MEDIUM** 

## **Description:**

The mobile application may expose potentially sensitive information during its runtimes.

- POTENTIAL URL FOUND 06-22 08:32:44.139 I/I3G-I3GSocket( 4821): getNatIP coll URL: https://trust.mysmilepay.com:443/androidagent.jsc
- POTENTIAL URL FOUND 06-22 08:32:45.406 I/I3G-I3GSocket( 4821): getNatIP coll URL: https://trust.mysmilepay.com:443/androidagent.jsc

### CVSSv3 Base Score:

5.5 (AV:L/AC:L/PR:L/UI:N/S:U/C:H/I:N/A:N)

# **EXTERNAL DATA STORAGE** [SAST] [M2] [CWE-921]

MEDIUM

## **Description:**

The mobile application can access external storage (e.g. SD card) in read or write mode. A Application data stored on external data storage may be accessed by other applications (including malicious ones) under certain conditions and bring risks of data theft, corruption or tampering.

## Example of secure code:

## Example of insecure code:

```
/* Checks if external storage is available for read and write */
                public boolean isExternalStorageWritable() {
                    String state = Environment.getExternalStorageState();
                    if (Environment.MEDIA_MOUNTED.equals(state)) {
                        return true;
                    }
                    return false;
                }
                /* Checks if external storage is available to at least read */
                public boolean isExternalStorageReadable() {
                    String state = Environment.getExternalStorageState();
                    if (Environment.MEDIA_MOUNTED.equals(state) ||
                        Environment.MEDIA_MOUNTED_READ_ONLY.equals(state)) {
                        return true;
                    }
                    return false;
                }
```

There is 'getExternalStoragePublicDirectory()' found in file 'dw/C0220Wl.java':

There is 'getExternalStoragePublicDirectory()' found in file 'com/ahnlab/enginesdk/SDCardUtils.java':

There is 'getExternalStorageState()' found in file 'dw/C0494pz.java':

```
[line 793: try {]
[line 794: str = Environment.getExternalStorageState();]
[line 795: } catch (NullPointerException unused2) {]
```

There is 'getExternalStorageState()' found in file 'com/raonsecure/oms/auth/utility/crypto/oms\_za.java':

There is 'getExternalStorageState()' found in file 'com/raonsecure/oms/auth/utility/crypto/oms\_ta.java':

There is 'getExternalStorageState()' found in file 'com/ahnlab/enginesdk/SDKUtils.java':

There is 'getExternalStorageState()' found in file 'com/intsig/sdk/utils/SDCardUtils.java':

```
[line 22: public static boolean isSDCardEnable() {]
[line 23: return
```

```
Environment.getExternalStorageState().equals("mounted");]
[line 24: }]
```

There is 'getExternalFilesDir()' found in file 'com/ahnlab/enginesdk/SDKContext.java':

There is 'getExternalFilesDir()' found in file 'com/ahnlab/enginesdk/DummyContext.java':

There is 'getExternalStorageDirectory()' found in file 'com/ahnlab/enginesdk/SDKUtils.java':

There is 'getExternalStorageDirectory()' found in file 'com/ahnlab/enginesdk/SDCardUtils.java':

There is 'getExternalStorageDirectory()' found in file 'com/ahnlab/enginesdk/Updater.java':

There is 'getExternalStorageDirectory()' found in file 'com/raon/fido/o/x/oms\_eh.java':

```
[line 28:
                  try {]
                      File file = new
[line 29:
File(Environment.getExternalStorageDirectory() + File.separator + p +
File.separator + str);]
                      File parentFile = file.getParentFile();]
[line 30:
[line 100:
                   try {]
[line 101:
                       File file2 = new
File(Environment.getExternalStorageDirectory() + File.separator + p +
File.separator + str);]
[line 102:
                       File parentFile = file2.getParentFile();]
[line 129:
                   try {]
[line 130:
                       FileInputStream fileInputStream = new FileInputStream(new
File(Environment.getExternalStorageDirectory() + File.separator + p +
File.separator + str));]
[line 131:
                       FileOutputStream fileOutputStream = new
FileOutputStream(file);]
[line 175:
                   try {]
[line 176:
                       File file = new
File(Environment.getExternalStorageDirectory() + File.separator + p +
File.separator + str);]
[line 177:
                       FileInputStream fileInputStream = new
FileInputStream(file);]
[line 206:
                   try {]
                       File file = new
[line 207:
File(Environment.getExternalStorageDirectory() + File.separator + p +
File.separator + str);]
[line 208:
                       File parentFile = file.getParentFile();]
[line 276:
                   try {]
                       bufferedReader = new BufferedReader(new
[line 277:
InputStreamReader(new FileInputStream(new
File(Environment.getExternalStorageDirectory() + File.separator + p +
File.separator + str)), str2));]
                   } catch (IOException unused) {]
[line 278:
[line 364:
                   try {]
[line 365:
                       File file = new
```

File.separator + str2);]

[line 366:

File(Environment.getExternalStorageDirectory() + File.separator + p +

File parentFile = file.getParentFile();]

There is 'getExternalStorageDirectory()' found in file 'com/intsig/sdk/utils/SDCardUtils.java':

There is 'getExternalCacheDir()' found in file 'com/ahnlab/enginesdk/DummyContext.java':

```
[line 212: @Override // android.content.Context]
[line 213: public File getExternalCacheDir() {]
[line 214: return null;]
```

## There is 'getExternalCacheDir()' found in file

'com/bumptech/glide/load/engine/cache/ExternalPreferredCacheDiskCacheFactory.java':

#### There is 'getExternalCacheDir()' found in file

'com/bumptech/glide/load/engine/cache/ExternalCacheDiskCacheFactory.java':

There is 'getExternalCacheDirs()' found in file 'com/ahnlab/enginesdk/DummyContext.java':

```
[line 217: @Override // android.content.Context]
[line 218: public File[] getExternalCacheDirs() {]
[line 219: return new File[0];]
```

There is 'getExternalFilesDirs()' found in file 'com/ahnlab/enginesdk/DummyContext.java':

```
[line 227: @Override // android.content.Context]
[line 228: public File[] getExternalFilesDirs(String str) {]
[line 229: return new File[0];]
```

There is 'getExternalMediaDirs()' found in file 'com/ahnlab/enginesdk/DummyContext.java':

```
[line 232: @Override // android.content.Context]
[line 233: public File[] getExternalMediaDirs() {]
```

```
[line 234: return new File[0];]
```

There is 'getObbDir()' found in file 'com/ahnlab/enginesdk/DummyContext.java':

```
[line 257: @Override // android.content.Context]
[line 258: public File getObbDir() {]
[line 259: return null;]
```

There is 'getObbDirs()' found in file 'com/ahnlab/enginesdk/DummyContext.java':

```
[line 262: @Override // android.content.Context]
[line 263: public File[] getObbDirs()
[line 264: return new File[0];]
```

#### CVSSv3 Base Score:

5.3 (AV:L/AC:L/PR:L/UI:N/S:U/C:L/I:L/A:L)

#### Reference:

• https://developer.android.com/training/basics/data-storage/files.html

# **WEAK ENCRYPTION [SAST] [M5] [CWE-327]**

**MEDIUM** 

### **Description:**

Weak or badly implemented encryption algorithms can endanger data storage and transmission used by the mobile application.

## Example of secure code:

## Example of insecure code:

There is 'RSA/ECB/PKCS1Padding' found in file 'com/raonsecure/oms/bioserver/oms\_o.java':

```
[line 21:    /* renamed from: a reason: collision with root package name */]
[line 22:    private static final String f154a = "RSA/ECB/PKCS1Padding";]
[line 23:    private static final String c =
```

"MIIBIjANBgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKCAQEA0qV4qUXRhiJVu5DBca7UMDuEczvduTM7twGs J5TiAEoERhrGv40LNS7QYQRwQyGklNn9AHm7iIUfgIR7\_6fLahgM4db-fzl6nSR2E06-ONszSUWiGK7scKNJDVT1UKvJNF28buoRs45ewWXyIvK96R3K0JggsQRdcsAYPhv0oPpfxWjStknf6kPLt l\_scLvA5CyMFZfLlwiDWHcjEbffuovyDJ1pdCvYiwQzTW1IfWC5GflR0\_MLPAjA-Xlg\_omGiNqr5UrP0h01r1Qb0LWpqYHfB88Y0kThZpGX7AK\_tWDjep6J-9f-Kg\_SftByB\_ozWl9mBQBCp9aJTAuekV1NiQIDAQAB";]

There is 'RSA/ECB/PKCS1Padding' found in file 'com/ahnlab/enginesdk/EngineLogClient.java':

```
[line 17: static final int REQUEST_TIMEOUT = 60000;]
[line 18: private static final String RSA_PADDING_ALG =
"RSA/ECB/PKCS1Padding";]
[line 19: private static final String SERVER_URL =
"https://enginedev.ahnlab.com/collect.jsp";]
```

#### CVSSv3 Base Score:

4.8 (AV:N/AC:H/PR:N/UI:N/S:U/C:L/I:L/A:N)

#### Reference:

• <a href="https://developer.android.com/reference/javax/crypto/Cipher.html">https://developer.android.com/reference/javax/crypto/Cipher.html</a>

http://find-sec-bugs.github.io/bugs.htm

# JS ENABLED IN A WEBVIEW [SAST] [M10] [CWE-749]

**MEDIUM** 

# **Description:**

The mobile application has enabled JavaScript in WebView. By default, JavaScript is disabled in WebView, if enabled it can bring various JS-related security issues, such as Cross-Site Scripting (XSS) attacks.

## Example of secure code:

```
// Don't enable Javascript in WebView
```

# Example of insecure code:

There is 'setJavaScriptEnabled(true)' found in file 'com/ebay/kr/widget/WebViewEx.java':

```
[line 46: settings.setJavaScriptEnabled(true);]
```

There is 'setJavaScriptEnabled(true)' found in file 'com/ebay/kr/base/ui/CommonWebFragment.java':

```
[line 151: settings.setJavaScriptEnabled(true);]
```

#### CVSSv3 Base Score:

4.8 (AV:N/AC:H/PR:N/UI:N/S:U/C:L/I:L/A:N)

### Reference:

- https://developer.android.com/reference/android/webkit/WebView.html
- https://developer.android.com/reference/android/webkit/WebSettings.html

# HARDCODED DATA [SAST] [M2] [CWE-200]

LOW

### **Description:**

The mobile application contains debugging or potentially sensitive hardcoded data. An attacker with an access to the mobile application can easily extract this data from the application and use it in any further attacks.

https:// with value https://github.com/restlet/restlet-framework-java/issues/778 in following files:

org/restlet/representation/ObjectRepresentation.java:

```
[line 47: throw new IllegalArgumentException("SECURITY WARNING: The usage of ObjectInputStream when deserializing binary representations from unstrusted sources can lead to malicious attacks. As pointed here (https://github.com/restlet/restlet-framework-java/issues/778), the ObjectInputStream class is able to force the JVM to execute unwanted Java code. Thus, the support of such format has been disactivated by default. You can activate this support by turning on the following system property: org.restlet.representation.ObjectRepresentation.VARIANT_OBJECT_BINARY_SUPPORTED.");]
```

https:// with value https://onepassdemo.raonsecure.co.kr:8445 in following files:

com/raonsecure/touchen/onepass/sdk/u/op\_z.java:

```
[line 18: private static String w = "https://onepassdemo.raonsecure.co.kr:8445";]
```

https:// with value https://enginedev.ahnlab.com/collect.jsp in following files:

• com/ahnlab/enginesdk/EngineLogClient.java:

```
[line 18: private static final String SERVER_URL =
"https://enginedev.ahnlab.com/collect.jsp";]
```

https:// with value https://tds.ahnlab.com/sign.jsp in following files:

com/ahnlab/enginesdk/SDKManager.java:

```
[line 77: private static final String SERVER_URL =
  "https://tds.ahnlab.com/sign.jsp";]
```

https:// with value https://api.textin.com/boss/sdk/authorization/apply in following files:

• com/intsig/sdk/key/AppkeySDK.java:

```
[line 195: String sendPost =
ICCardUtil.sendPost("https://api.textin.com/boss/sdk/authorization/apply",
jSONObject.toString());]
```

http:// with value http://blog.diniscruz.com/2013/08/using-xmldecoder-to-execute-server-side.html in following files:

org/restlet/representation/ObjectRepresentation.java:

```
[line 61: throw new IllegalArgumentException("SECURITY WARNING: The usage of XMLDecoder when deserializing XML representations from unstrusted sources can lead to malicious attacks. As pointed here (http://blog.diniscruz.com/2013/08/using-xmldecoder-to-execute-server-side.html), the XMLDecoder class is able to force the JVM to execute unwanted Java code described inside the XML file. Thus, the support of such format has been disactivated by default. You can activate this support by turning on the following system property: org.restlet.representation.ObjectRepresentation.VARIANT_OBJECT_XML_SUPPORTED.");]
```

http:// with value http://www.webdav.org/specs/rfc2518.html in following files:

org/restlet/data/Status.java:

```
[line 8: private static final String BASE_WEBDAV =
"http://www.webdav.org/specs/rfc2518.html";]
[line 605: return "http://www.webdav.org/specs/rfc2518.html#STATUS_507";]
[line 613: return "http://www.webdav.org/specs/rfc2518.html#STATUS_102";]
[line 640: return "http://www.webdav.org/specs/rfc2518.html#STATUS_207";]
[line 698: return "http://www.webdav.org/specs/rfc2518.html#STATUS_422";]
[line 700: return "http://www.webdav.org/specs/rfc2518.html#STATUS_423";]
[line 702: return "http://www.webdav.org/specs/rfc2518.html#STATUS_424";]
```

org/restlet/data/Method.java:

```
[line 13: private static final String BASE_WEBDAV =
"http://www.webdav.org/specs/rfc2518.html";]
[line 23: public static final Method COPY = new Method("COPY", "Creates a
duplicate of the source resource, identified by the Request-URI, in the
destination resource, identified by the URI in the Destination header",
"http://www.webdav.org/specs/rfc2518.html#METHOD_COPY", false, true);]
[line 27: public static final Method LOCK = new Method("LOCK", "Used to take out
a lock of any access type (WebDAV)",
"http://www.webdav.org/specs/rfc2518.html#METHOD_LOCK", true, false);]
[line 28: public static final Method MKCOL = new Method("MKCOL", "Used to create
a new collection (WebDAV)",
"http://www.webdav.org/specs/rfc2518.html#METHOD_MKCOL", false, true);]
[line 29: public static final Method MOVE = new Method("MOVE", "Logical
equivalent of a copy, followed by consistency maintenance processing, followed by
a delete of the source (WebDAV)",
"http://www.webdav.org/specs/rfc2518.html#METHOD_MOVE", false, false);]
[line 33: public static final Method PROPFIND = new Method("PROPFIND", "Retrieves
properties defined on the resource identified by the request URI",
"http://www.webdav.org/specs/rfc2518.html#METHOD_PROPFIND", true, true);]
[line 34: public static final Method PROPPATCH = new Method("PROPPATCH",
"Processes instructions specified in the request body to set and/or remove
properties defined on the resource identified by the request URI",
"http://www.webdav.org/specs/rfc2518.html#METHOD_PROPPATCH", false, true);]
[line 37: public static final Method UNLOCK = new Method("UNLOCK", "Removes the
```

lock identified by the lock token from the request URI, and all other resources included in the lock", "http://www.webdav.org/specs/rfc2518.html#METHOD\_UNLOCK", true, false);]

http:// with value http://www.restlet.org/documentation/2.2/ in following files:

org/restlet/data/Status.java:

```
[line 14: private static final String BASE_RESTLET =
"http://www.restlet.org/documentation/2.2/" +
Edition.CURRENT.getShortName().toLowerCase() + "/api/";]
```

http:// with value http://www.webdav.org/specs/rfc2518.html#STATUS\_507 in following files:

org/restlet/data/Status.java:

```
[line 605: return "http://www.webdav.org/specs/rfc2518.html#STATUS_507";]
```

http:// with value http://www.webdav.org/specs/rfc2518.html#STATUS\_102 in following files:

org/restlet/data/Status.java:

```
[line 613: return "http://www.webdav.org/specs/rfc2518.html#STATUS_102";]
```

http://with value http://www.webdav.org/specs/rfc2518.html#STATUS\_207 in following files:

org/restlet/data/Status.java:

```
[line 640: return "http://www.webdav.org/specs/rfc2518.html#STATUS_207";]
```

http://with value http://www.webdav.org/specs/rfc2518.html#STATUS\_422 in following files:

org/restlet/data/Status.java:

```
[line 698: return "http://www.webdav.org/specs/rfc2518.html#STATUS_422";]
```

http:// with value http://www.webdav.org/specs/rfc2518.html#STATUS\_423 in following files:

org/restlet/data/Status.java:

```
[line 700: return "http://www.webdav.org/specs/rfc2518.html#STATUS_423";]
```

http:// with value http://www.webdav.org/specs/rfc2518.html#STATUS\_424 in following files:

org/restlet/data/Status.java:

```
[line 702: return "http://www.webdav.org/specs/rfc2518.html#STATUS_424";]
```

http://with value http://www.webdav.org/specs/rfc2518.html#METHOD\_COPY in following files:

org/restlet/data/Method.java:

```
[line 23: public static final Method COPY = new Method("COPY", "Creates a duplicate of the source resource, identified by the Request-URI, in the destination resource, identified by the URI in the Destination header", "http://www.webdav.org/specs/rfc2518.html#METHOD_COPY", false, true);]
```

http:// with value http://www.webdav.org/specs/rfc2518.html#METHOD\_LOCK in following files:

org/restlet/data/Method.java:

```
[line 27: public static final Method LOCK = new Method("LOCK", "Used to take out
a lock of any access type (WebDAV)",
"http://www.webdav.org/specs/rfc2518.html#METHOD_LOCK", true, false);]
```

http://with value http://www.webdav.org/specs/rfc2518.html#METHOD\_MKCOL in following files:

org/restlet/data/Method.java:

```
[line 28: public static final Method MKCOL = new Method("MKCOL", "Used to create
a new collection (WebDAV)",
"http://www.webdav.org/specs/rfc2518.html#METHOD_MKCOL", false, true);]
```

http://with value http://www.webdav.org/specs/rfc2518.html#METHOD\_MOVE in following files:

org/restlet/data/Method.java:

```
[line 29: public static final Method MOVE = new Method("MOVE", "Logical equivalent of a copy, followed by consistency maintenance processing, followed by a delete of the source (WebDAV)", "http://www.webdav.org/specs/rfc2518.html#METHOD_MOVE", false, false);]
```

http:// with value http://tools.ietf.org/html/rfc5789 in following files:

org/restlet/data/Method.java:

```
[line 31: public static final Method PATCH = new
Method(HttpClientStack.HttpPatch.METHOD_NAME, "Requests that the origin server
applies partial modifications to the resource identified by the request URI",
"http://tools.ietf.org/html/rfc5789", false, false);]
```

http://with value http://www.webdav.org/specs/rfc2518.html#METHOD\_PROPFIND in following files:

org/restlet/data/Method.java:

```
[line 33: public static final Method PROPFIND = new Method("PROPFIND", "Retrieves properties defined on the resource identified by the request URI", "http://www.webdav.org/specs/rfc2518.html#METHOD_PROPFIND", true, true);]
```

http://with value http://www.webdav.org/specs/rfc2518.html#METHOD\_PROPPATCH in following files:

• org/restlet/data/Method.java:

```
[line 34: public static final Method PROPPATCH = new Method("PROPPATCH",
"Processes instructions specified in the request body to set and/or remove
properties defined on the resource identified by the request URI",
"http://www.webdav.org/specs/rfc2518.html#METHOD_PROPPATCH", false, true);]
```

http://with value http://www.webdav.org/specs/rfc2518.html#METHOD\_UNLOCK in following files:

org/restlet/data/Method.java:

```
[line 37: public static final Method UNLOCK = new Method("UNLOCK", "Removes the lock identified by the lock token from the request URI, and all other resources included in the lock", "http://www.webdav.org/specs/rfc2518.html#METHOD_UNLOCK", true, false);]
```

#### CVSSv3 Base Score:

3.3 (AV:L/AC:L/PR:L/UI:N/S:U/C:L/I:N/A:N)

# **INFORMATION EXPOSURE [SAST] [M10] [CWE-200]**

LOW

### **Description:**

The application contains potential information exposure of URIs that should not be present inside the application, such as a development endpoint. Often, developers include hidden backdoor functionality or other internal

development security controls that are not intended to be released into a production environment. An example is a password as a comment in a hybrid app or a code segment that disables 2-factor authentication during testing. The defining characteristic of this risk is leaving functionality enabled in the app that was not intended to be released.

https:// with value https://enginedev.ahnlab.com/collect.jsp in following files:

• com/ahnlab/enginesdk/EngineLogClient.java:

```
[line 18: private static final String SERVER_URL =
"https://enginedev.ahnlab.com/collect.jsp";]
```

## CVSSv3 Base Score:

3.3 (AV:L/AC:L/PR:L/UI:N/S:U/C:L/I:N/A:N)

# MISSING TAPJACKING PROTECTION [SAST] [M1] [CWE-451]

LOW

## **Description:**

By default on Android 6.0 and lower, Android allows applications to overlaydraw over some portions of the phone screen and permits touch events to be sent to underlying activities. This can be used by an attacker to trick application users into performing some sensitive actions in a legitimate application (e.g. send a payment) that they do not otherwise intend doing.

# Example of secure code:

```
public class MyActivity extends Activity {
                    protected void onCreate(Bundle bundle) {
                        super.onCreate(bundle);
                        final Button myButton =
(Button)findViewById(R.id.button_id);
                        myButton.setFilterTouchesWhenObscured(true);
                        myButton.setOnClickListener(new View.OnClickListener() {
                            // Perform action on click
                        }
                    }
                }
                <Button
                    android:layout_height="wrap_content"
                    android:layout_width="wrap_content"
                    android:text="@string/self_destruct"
                    android:onClick="selfDestruct"
                    android:filterTouchesWhenObscured="true" />
```

There is android:filterTouchesWhenObscured="true" missing in files:

- android/res/layout-watch/abc\_alert\_dialog\_button\_bar\_material.xml
- android/res/layout-watch/abc\_alert\_dialog\_title\_material.xml
- android/res/layout-land/material\_clock\_period\_toggle\_land.xml
- android/res/layout-land/mtrl\_picker\_header\_dialog.xml
- android/res/layout-land/material\_timepicker.xml
- android/res/layout-land/activity\_smilepay\_offline\_barcode\_bigger.xml
- android/res/layout/worm\_dot\_layout.xml
- android/res/layout/text\_view\_with\_theme\_line\_height.xml
- android/res/layout/mtrl\_picker\_text\_input\_date.xml
- android/res/layout/op\_row.xml
- android/res/layout/fragment\_payment\_result.xml
- android/res/layout/op\_default\_progressbar.xml
- android/res/layout/mtrl\_alert\_dialog\_actions.xml
- android/res/layout/abc\_list\_menu\_item\_checkbox.xml
- android/res/layout/abd\_auth\_activity\_transactionconfirmation\_main.xml
- android/res/layout/design\_layout\_snackbar\_include.xml
- android/res/layout/abd\_clt\_authenticator\_selection.xml
- android/res/layout/design\_text\_input\_start\_icon.xml
- android/res/layout/material\_clock\_period\_toggle.xml
- android/res/layout/op\_auth\_dialog\_asm\_display\_tc\_png.xml
- android/res/layout/abc\_alert\_dialog\_button\_bar\_material.xml
- android/res/layout/mtrl\_picker\_header\_fullscreen.xml
- android/res/layout/offline\_barcode\_widget.xml
- android/res/layout/op\_auth\_dialog\_asm\_display\_tc.xml
- android/res/layout/abc\_activity\_chooser\_view\_list\_item.xml
- android/res/layout/op\_amslist\_item.xml
- android/res/layout/notification\_template\_big\_media.xml
- android/res/layout/text\_view\_with\_line\_height\_from\_layout.xml
- android/res/layout/design\_layout\_tab\_icon.xml
- android/res/layout/abc\_screen\_content\_include.xml
- android/res/layout/item\_charge\_payment.xml
- android/res/layout/mtrl\_picker\_dialog.xml
- android/res/layout/abc\_activity\_chooser\_view.xml
- android/res/layout/abc\_select\_dialog\_material.xml
- android/res/layout/op\_activity\_asmlist\_landscape.xml

- android/res/layout/test\_toolbar\_elevation.xml
- android/res/layout/abc\_action\_bar\_title\_item.xml
- android/res/layout/mtrl\_calendar\_year.xml
- android/res/layout/mtrl\_alert\_dialog\_title.xml
- android/res/layout/test\_toolbar.xml
- android/res/layout/biometric\_container.xml
- android/res/layout/op\_discoveryrow.xml
- android/res/layout/abc\_screen\_toolbar.xml
- android/res/layout/samsungpass\_iris\_dialog.xml
- android/res/layout/text\_view\_with\_line\_height\_from\_appearance.xml
- android/res/layout/material\_timepicker\_textinput\_display.xml
- android/res/layout/dialog\_has\_more\_info.xml
- android/res/layout/material\_time\_input.xml
- android/res/layout/abc\_dialog\_title\_material.xml
- android/res/layout/mtrl\_picker\_header\_dialog.xml
- android/res/layout/abc\_search\_view.xml
- android/res/layout/op\_translucent\_layot.xml
- android/res/layout/abc\_search\_dropdown\_item\_icons\_2line.xml
- android/res/layout/abc\_action\_menu\_item\_layout.xml
- android/res/layout/design\_bottom\_sheet\_dialog.xml
- android/res/layout/material\_chip\_input\_combo.xml
- android/res/layout/material\_clock\_display.xml
- android/res/layout/mtrl\_calendar\_months.xml
- android/res/layout/abd\_asm\_list\_user\_selector.xml
- android/res/layout/design\_bottom\_navigation\_item.xml
- android/res/layout/abd\_auth\_activity\_base\_main.xml
- android/res/layout/abc\_action\_bar\_up\_container.xml
- android/res/layout/notification\_template\_icon\_group.xml
- android/res/layout/abc\_list\_menu\_item\_layout.xml
- android/res/layout/design\_text\_input\_end\_icon.xml
- android/res/layout/fragment\_setting\_charge\_way.xml
- android/res/layout/header\_title.xml
- android/res/layout/material\_timepicker\_dialog.xml
- android/res/layout/spassmanager\_activity.xml
- android/res/layout/design\_navigation\_item\_separator.xml

- android/res/layout/mtrl\_calendar\_day\_of\_week.xml
- android/res/layout/material\_clockface\_textview.xml
- android/res/layout/authentication\_pass\_iris\_layout.xml
- android/res/layout/mtrl\_picker\_header\_toggle.xml
- android/res/layout/mtrl\_calendar\_month\_navigation.xml
- android/res/layout/op\_asmitem.xml
- android/res/layout/test\_reflow\_chipgroup.xml
- android/res/layout/notification\_media\_cancel\_action.xml
- android/res/layout/material\_radial\_view\_group.xml
- android/res/layout/mtrl\_calendar\_month.xml
- android/res/layout/notification\_action\_tombstone.xml
- android/res/layout/common\_custom\_alert\_dialog.xml
- android/res/layout/fragment\_offline\_pay\_info.xml
- android/res/layout/op\_waiting.xml
- android/res/layout/op\_activity\_pushalert.xml
- android/res/layout/abc\_action\_menu\_layout.xml
- android/res/layout/authentication\_pass\_finger\_layout.xml
- android/res/layout/pin\_custom\_ctrlview.xml
- android/res/layout/layout\_complete\_payment\_with\_single\_method.xml
- android/res/layout/layout\_fail\_payment.xml
- android/res/layout/op\_activity\_transparent.xml
- android/res/layout/notification\_template\_part\_time.xml
- android/res/layout/activity\_fido\_web.xml
- android/res/layout/notification\_action.xml
- android/res/layout/bankcard\_scan\_layout.xml
- android/res/layout/abc\_list\_menu\_item\_radio.xml
- android/res/layout/mtrl\_layout\_snackbar\_include.xml
- android/res/layout/custom\_dialog.xml
- android/res/layout/samsungpass\_finger\_dialog\_dumy.xml
- android/res/layout/mtrl\_calendar\_horizontal.xml
- android/res/layout/activity\_splash.xml
- android/res/layout/webview\_fragment.xml
- android/res/layout/fragment\_smile\_cash\_info.xml
- android/res/layout/abd\_auth\_activity\_pincode\_main.xml
- android/res/layout/fingerprint\_dialog\_container\_dumy.xml

- android/res/layout/activity\_smilepay\_offline.xml
- android/res/layout/material\_clock\_display\_divider.xml
- android/res/layout/mtrl\_alert\_select\_dialog\_multichoice.xml
- android/res/layout/spring\_dot\_layout.xml
- android/res/layout/test\_toolbar\_custom\_background.xml
- android/res/layout/dot\_layout.xml
- android/res/layout/activity\_common\_web.xml
- android/res/layout/registration\_finger\_layout.xml
- android/res/layout/abc\_screen\_simple\_overlay\_action\_mode.xml
- android/res/layout/toast\_msg\_layout.xml
- android/res/layout/mtrl\_calendar\_vertical.xml
- android/res/layout/abc\_popup\_menu\_item\_layout.xml
- android/res/layout/mtrl\_picker\_header\_title\_text.xml
- android/res/layout/mtrl\_picker\_fullscreen.xml
- android/res/layout/design\_menu\_item\_action\_area.xml
- android/res/layout/select\_dialog\_singlechoice\_material.xml
- android/res/layout/browser\_actions\_context\_menu\_page.xml
- android/res/layout/paymethod\_item.xml
- android/res/layout/activity\_offline\_barcode.xml
- android/res/layout/select\_dialog\_item\_material.xml
- android/res/layout/browser\_actions\_context\_menu\_row.xml
- android/res/layout/op\_asmlist\_header.xml
- android/res/layout/abd\_auth\_activity\_pincode\_main\_with\_softkeybar.xml
- android/res/layout/design\_navigation\_menu.xml
- android/res/layout/activity\_deeplinks.xml
- android/res/layout/layout\_complete\_payment\_with\_multi\_method.xml
- android/res/layout/mtrl\_picker\_header\_selection\_text.xml
- android/res/layout/test\_action\_chip.xml
- android/res/layout/test\_chip\_zero\_corner\_radius.xml
- android/res/layout/op\_activity\_discovery.xml
- android/res/layout/test\_navigation\_bar\_item\_layout.xml
- android/res/layout/iris\_print.xml
- android/res/layout/abd\_clt\_list\_authenticator\_selection.xml
- android/res/layout/material\_timepicker.xml
- android/res/layout/support\_simple\_spinner\_dropdown\_item.xml

- android/res/layout/notification\_media\_action.xml
- android/res/layout/material\_time\_chip.xml
- android/res/layout/notification\_template\_media.xml
- android/res/layout/spassmanager\_activity\_irisprint.xml
- android/res/layout/abc\_alert\_dialog\_material.xml
- android/res/layout/mtrl\_alert\_select\_dialog\_item.xml
- android/res/layout/pin\_user\_editbox.xml
- android/res/layout/registration\_finger\_fail\_over\_layout.xml
- android/res/layout/activity\_error.xml
- android/res/layout/design\_navigation\_item.xml
- android/res/layout/authentication\_finger\_layout.xml
- android/res/layout/abc\_tooltip.xml
- android/res/layout/abc\_action\_mode\_bar.xml
- android/res/layout/item\_offline\_barcode\_card.xml
- android/res/layout/op\_activity\_uafclient.xml
- android/res/layout/op\_custom\_dialog\_layout.xml
- android/res/layout/design\_navigation\_item\_header.xml
- android/res/layout/test\_design\_checkbox.xml
- android/res/layout/mtrl\_picker\_text\_input\_date\_range.xml
- android/res/layout/notification\_template\_lines\_media.xml
- android/res/layout/fragment\_offline\_barcode.xml
- android/res/layout/test\_design\_radiobutton.xml
- android/res/layout/design\_layout\_snackbar.xml
- android/res/layout/notification\_template\_big\_media\_narrow\_custom.xml
- android/res/layout/mtrl\_calendar\_month\_labeled.xml
- android/res/layout/abc\_action\_mode\_close\_item\_material.xml
- android/res/layout/abd\_auth\_popup\_layout.xml
- android/res/layout/test\_toolbar\_surface.xml
- android/res/layout/finger\_activity\_main.xml
- android/res/layout/design\_navigation\_item\_subheader.xml
- android/res/layout/smile\_delivery\_dawn\_tooltip.xml
- android/res/layout/abc\_list\_menu\_item\_icon.xml
- android/res/layout/op\_activity\_asmlist.xml
- android/res/layout/item\_smile\_cash\_info.xml
- android/res/layout/activity\_smilepay\_offline\_barcode\_bigger.xml

- android/res/layout/abd\_auth\_buttonview.xml
- android/res/layout/abd\_asm\_user\_selector.xml
- android/res/layout/pin\_customview.xml
- android/res/layout/button\_layout.xml
- android/res/layout/material\_textinput\_timepicker.xml
- android/res/layout/zxing\_capture.xml
- android/res/layout/op\_activity\_main.xml
- android/res/layout/abc\_expanded\_menu\_layout.xml
- android/res/layout/op\_activity\_plainview.xml
- android/res/layout/notification\_template\_media\_custom.xml
- android/res/layout/abc\_cascading\_menu\_item\_layout.xml
- android/res/layout/activity\_main.xml
- android/res/layout/layout\_zeropay\_custom\_barcode\_scanner.xml
- android/res/layout/mtrl\_navigation\_rail\_item.xml
- android/res/layout/op\_discoveryheader.xml
- android/res/layout/fingerprint\_dialog\_container.xml
- android/res/layout/oms\_pin\_item.xml
- android/res/layout/mtrl\_calendar\_days\_of\_week.xml
- android/res/layout/text\_view\_without\_line\_height.xml
- android/res/layout/material\_clockface\_view.xml
- android/res/layout/mtrl\_calendar\_day.xml
- android/res/layout/samsungpass\_finger\_dialog.xml
- android/res/layout/header\_icon.xml
- android/res/layout/activity\_setting.xml
- android/res/layout/zxing\_barcode\_scanner.xml
- android/res/layout/mtrl\_layout\_snackbar.xml
- android/res/layout/design\_navigation\_menu\_item.xml
- android/res/layout/notification\_template\_custom\_big.xml
- android/res/layout/text\_view\_with\_line\_height\_from\_style.xml
- android/res/layout/spassmanager\_activity\_fingerprint.xml
- android/res/layout/fingerprint\_dialog\_layout.xml
- android/res/layout/mtrl\_alert\_select\_dialog\_singlechoice.xml
- android/res/layout/abc\_popup\_menu\_header\_item\_layout.xml
- android/res/layout/abc\_alert\_dialog\_title\_material.xml
- android/res/layout/notification\_template\_big\_media\_custom.xml

- android/res/layout/notification\_template\_big\_media\_narrow.xml
- android/res/layout/notification\_template\_part\_chronometer.xml
- android/res/layout/mtrl\_alert\_dialog.xml
- android/res/layout/mtrl\_picker\_actions.xml
- android/res/layout/abd\_auth\_activity\_contoller.xml
- android/res/layout/cell\_empty.xml
- android/res/layout/abc\_screen\_simple.xml
- android/res/layout/select\_dialog\_multichoice\_material.xml
- android/res/layout/design\_layout\_tab\_text.xml
- android/res/layout-ldrtl/material\_textinput\_timepicker.xml
- android/res/layout-sw600dp/design\_layout\_snackbar.xml
- android/res/layout-sw600dp/mtrl\_layout\_snackbar.xml
- android/res/layout-v26/abc\_screen\_toolbar.xml
- android/res/layout-v26/mtrl\_calendar\_month.xml

#### Details:

There is 'extends HorizontalScrollView' found in file 'dw/Vh.java':

```
[line 12: /* loaded from: classes.dex */]
[line 13: public class Vh extends HorizontalScrollView implements
ViewPager.OnPageChangeListener {]
[line 14: public final LinearLayout Eb;]
```

There is 'extends HorizontalScrollView' found in file 'dw/C0542rg.java':

```
[line 8: /* loaded from: classes.dex */]
[line 9: public class C0542rq extends HorizontalScrollView {]
[line 10: public float Vf;]
```

## Details:

There is 'extends ViewPager' found in file 'dw/XG.java':

```
[line 8: /* loaded from: classes.dex */]
[line 9: public class XG extends ViewPager {]
[line 10: public C0529qp hj;]
```

There is 'extends ViewPager' found in file 'dw/Xt.java':

```
[line 11: /* loaded from: classes.dex */]
[line 12: public final class Xt extends ViewPager {]
```

```
[line 13: public ZK QJ;]
```

There is 'extends ViewPager' found in file 'dw/C0336gK.java':

```
[line 10: /* loaded from: classes.dex */]
[line 11: public class C0336gK extends ViewPager {]
[line 12: public float QA;]
```

There is 'extends ViewPager' found in file 'dw/C0263Zj.java':

```
[line 11: /* loaded from: classes.dex */]
[line 12: public class C0263Zj extends ViewPager {]
[line 13: private static final boolean oD = false;]
```

#### Details:

There is 'extends ListView' found in file 'dw/C0134Kp.java':

```
[line 13: /* loaded from: classes.dex */]
[line 14: public class C0134Kp extends ListView {]
[line 15: public AbstractC0702ym Kr;]
```

#### Details:

There is 'extends ImageView' found in file 'dw/Qn.java':

```
[line 10: /* loaded from: classes.dex */]
[line 11: public class Qn extends ImageView {]
[line 12: private static final float Mz = 0.0f;]
```

There is 'extends ImageView' found in file 'dw/OA.java':

```
[line 7: /* loaded from: classes.dex */]
[line 8: public class OA extends ImageView {]
[line 9: public boolean XG;]
```

There is 'extends ImageView' found in file 'dw/C0664xm.java':

```
[line 8: /* loaded from: classes.dex */]
[line 9: public class C0664xm extends ImageView {]
[line 10: public boolean Jt;]
```

There is 'extends ImageView' found in file 'com/intsig/sdk/views/MyZoomImageView.java':

```
[line 14: /* loaded from: classes2.dex */]
[line 15: public class MyZoomImageView extends ImageView {]
```

```
[line 16: private PointF firstPointF;]
```

#### Details:

There is 'extends ViewGroup' found in file 'dw/Qd.java':

```
[line 15: /* loaded from: classes.dex */]
[line 16: public class Qd extends ViewGroup {]
[line 17: public static EnumC0399jf Cx = null;]
```

There is 'extends ViewGroup' found in file 'dw/Xc.java':

```
[line 19: /* loaded from: classes.dex */]
[line 20: public class Xc extends ViewGroup {]
[line 21: private static final int Iw = 40;]
```

There is 'extends ViewGroup' found in file 'dw/C0652xY.java':

```
[line 26: /* loaded from: classes.dex */]
[line 27: public class C0652xY extends ViewGroup {]
[line 28: private static final float Ao = 0.5f;]
```

There is 'extends ViewGroup' found in file 'com/journeyapps/barcodescanner/CameraPreview.java':

```
[line 32: /* loaded from: classes2.dex */]
[line 33: public class CameraPreview extends ViewGroup {]
[line 34: private static final int ROTATION_LISTENER_DELAY_MS = 250;]
```

#### Details:

There is 'extends FrameLayout' found in file 'dw/C0301cy.java':

```
[line 19: /* loaded from: classes.dex */]
[line 20: public class C0301cy extends FrameLayout {]
[line 21: private static final int Hg = 5;]
```

There is 'extends FrameLayout' found in file 'dw/AbstractC0473oW.java':

```
[line 12: /* loaded from: classes.dex */]
[line 13: public abstract class AbstractC0473oW<T> extends FrameLayout
[line 14: public int TZ;]
```

There is 'extends FrameLayout' found in file 'dw/AbstractC0321eo.java':

```
[line 16: /* loaded from: classes.dex */]
[line 17: public abstract class AbstractC0321eo<T> extends FrameLayout {]
```

```
[line 18: public WeakReference<AbstractC0206Vl<T>> hX;]
```

There is 'extends FrameLayout' found in file 'com/tbuonomo/viewpagerdotsindicator/BaseDotsIndicator.java':

There is 'extends FrameLayout' found in file 'com/journeyapps/barcodescanner/DecoratedBarcodeView.java':

```
[line 23: /* loaded from: classes2.dex */]
[line 24: public class DecoratedBarcodeView extends FrameLayout {]
[line 25:    private BarcodeView barcodeView;]
```

#### Details:

There is 'extends TextView' found in file 'dw/C0452lr.java':

```
[line 7: /* loaded from: classes.dex */]
[line 8: public class C0452lr extends TextView {]
[line 9: public int KT;]
```

#### Details:

There is 'extends RelativeLayout' found in file 'dw/C0099Gy.java':

```
[line 7: /* loaded from: classes.dex */]
[line 8: public class C0099Gy extends RelativeLayout
[line 9: public Animation.AnimationListener uu;]
```

There is 'extends RelativeLayout' found in file

'com/raonsecure/oms/asm/api/dialog/ui/pin/NewPinCustomView.java':

```
[line 73: /* loaded from: classes2.dex */]
[line 74: public class NewPinCustomView extends RelativeLayout implements
View.OnClickListener, View.OnTouchListener, ITransKeyActionListener,
ITransKeyActionListenerEx, IOnePassPinValidateResultCallback,
IOPAuthnrCancelCallback {]
[line 75: public static final String BIO_DATA = "bioData";]
```

There is 'extends RelativeLayout' found in file 'com/raonsecure/touchen/onepass/sdk/OPTopMenu.java':

```
[line 18: /* loaded from: classes2.dex */]
[line 19: public class OPTopMenu extends RelativeLayout implements
View.OnClickListener {]
[line 20: private static final String s = "OPTopMenu";]
```

## Details:

There is 'extends ProgressBar' found in file 'dw/C0190Ua.java':

```
[line 13: /* loaded from: classes.dex */]
[line 14: public class C0190Ua extends ProgressBar {]
[line 15:         public View zm;]
```

#### Details:

There is 'extends View' found in file 'com/raonsecure/common/view/OPAuthnrCustomView.java':

```
[line 6: /* loaded from: classes2.dex */]
[line 7: public class OPAuthnrCustomView extends View {]
[line 8: public OPAuthnrCustomView(Context context) {]
```

There is 'extends View' found in file 'com/journeyapps/barcodescanner/ViewfinderView.java':

```
[line 17: /* loaded from: classes2.dex */]
[line 18: public class ViewfinderView extends View {]
[line 19: protected static final long ANIMATION_DELAY = 80;]
```

There is 'extends View' found in file 'com/intsig/sdk/activitys/SdkPreviewActivity.java':

## Details:

There is 'extends LinearLayout' found in file 'com/raonsecure/touchen/onepass/sdk/OPWaiting.java':

```
[line 17: /* loaded from: classes2.dex */]
[line 18: public class OPWaiting extends LinearLayout {]
[line 19: private static final String u = "OPWaiting";]
```

## Details:

There is 'extends RecyclerView' found in file 'com/ebay/kr/widget/RecyclerViewCompat.java':

```
[line 21: /* loaded from: classes.dex */]
[line 22: public class RecyclerViewCompat extends RecyclerView {]
[line 23: public YF Qj;]
```

#### Details:

There is 'extends WebView' found in file 'com/ebay/kr/widget/WebViewEx.java':

```
[line 24: /* loaded from: classes.dex */]
[line 25: public class WebViewEx extends WebView implements AbstractC0485pW {]
[line 26: public AbstractC0619wD onScrollChangedListener = null;]
```

## Details:

There is 'extends AppCompatTextView' found in file 'com/ebay/kr/mage/ui/smilepay/view/ActivateTextView.java':

```
[line 19: /* loaded from: classes.dex */]
[line 20: public final class ActivateTextView extends AppCompatTextView {]
[line 21:         public static final C0259Ze ij = new C0259Ze(null);]
```

## Details:

There is 'extends AppCompatImageView' found in file 'com/ebay/kr/mage/ui/smilepay/view/CardFrameImageView.java':

```
[line 29: /* loaded from: classes.dex */]
[line 30: public final class CardFrameImageView extends AppCompatImageView {]
[line 31: public static final VX qr = new VX(null);]
```

## CVSSv3 Base Score:

3.3 (AV:L/AC:H/PR:L/UI:R/S:U/C:L/I:L/A:N)

## Reference:

- https://developer.android.com/guide/topics/ui/declaring-layout.html
- https://developer.android.com/guide/topics/resources/layout-resource.html
- https://blog.lookout.com/blog/2010/12/09/android-touch-event-hijacking/

# **EXPORTED ACTIVITIES [SAST] [M1] [CWE-926]**

LOW

## **Description:**

The mobile application contains exported activities that can be invoked by other applications residing on the mobile device, including malicious ones, to trigger a legitimate application activity in order to perform potentially sensitive actions.

## Example of secure code:

## Example of insecure code:

```
<activity
    android:name=".SomeActivity"
    ....
    android:exported="true" />
```

There is 'MainWebActivity' found in file 'android/AndroidManifest.xml':

There is 'SettingActivity' found in file 'android/AndroidManifest.xml':

## CVSSv3 Base Score:

3.6 (AV:L/AC:H/PR:L/UI:N/S:U/C:L/I:L/A:N)

## Reference:

- <a href="https://developer.android.com/reference/android/app/Activity.html">https://developer.android.com/reference/android/app/Activity.html</a>
- https://developer.android.com/guide/topics/manifest/activity-element.html

# **EXPORTED BROADCAST RECEIVERS** [SAST] [M1] [CWE-925]

LOW

# Description:

The mobile application contains an exported receiver enabling other applications, including malicious ones, to send intents without restrictions.

By default, Broadcast Receivers is exported in Android, as the result any application will be able to send an intent to the Broadcast Receiver of the application.

To define which applications can send intents to mobile application's Broadcast Receiver set relevant permissions in the Android Manifest file.

## Example of secure code:

## Example of insecure code:

There is 'ConnectivityChangeReceiver' found in file 'android/AndroidManifest.xml':

#### CVSSv3 Base Score:

3.6 (AV:L/AC:H/PR:L/UI:N/S:U/C:L/I:L/A:N)

## Reference:

- <a href="https://developer.android.com/guide/topics/manifest/receiver-element.html">https://developer.android.com/guide/topics/manifest/receiver-element.html</a>
- <a href="https://developer.android.com/reference/android/content/BroadcastReceiver.html">https://developer.android.com/reference/android/content/BroadcastReceiver.html</a>

## **TEMPORARY FILE CREATION** [SAST]

WARNING

## **Description:**

The mobile application creates temporary files. Despite that cache files are usually private by default, it is recommended to make sure that temporary files are securely deleted when they are not required by the application anymore.

There is 'createTempFile()' found in file 'org/restlet/engine/local/ZipClientHelper.java':

```
[line 188:
                       try {]
[line 189:
                           File createTempFile =
File.createTempFile("restlet_zip_", "zip");]
[line 190:
                           ZipFile zipFile3 = new ZipFile(file);]
```

There is 'createTempFile()' found in file 'kotlin/io/FilesKt\_UtilsKt.java':

```
[line 36:
                  Intrinsics.checkNotNullParameter(prefix, "prefix");]
                  File dir = File.createTempFile(prefix, str, file);]
[line 37:
[line 38:
                  dir.delete();]
[line 55:
                  }]
[line 56:
                  return FilesKt.createTempFile(str, str2, file);]
[line 57:
              }]
              @Deprecated(message = "Avoid creating temporary files in the
[line 59:
default temp location with this function due to too wide permissions on the newly
created file. Use kotlin.io.path.createTempFile instead or resort to
java.io.File.createTempFile.")]
[line 60:
              public static final File createTempFile(String prefix, String str,
File file) {]
[line 61:
                  Intrinsics.checkNotNullParameter(prefix, "prefix");]
```

File createTempFile = File.createTempFile(prefix, str, file);]

Intrinsics.checkNotNullExpressionValue(createTempFile,

[line 64: return createTempFile;]

There is 'createTempFile()' found in file 'kotlin/io/path/PathsKt\_PathUtilsKt.java':

"createTempFile(prefix, suffix, directory)");]

[line 62:

[line 63:

```
[line 553:
                   Intrinsics.checkNotNullParameter(attributes, "attributes");]
[line 554:
                   Path createTempFile = Files.createTempFile(str, str2,
(FileAttribute[]) Arrays.copyOf(attributes, attributes.length));]
[line 555:
                   Intrinsics.checkNotNullExpressionValue(createTempFile,
"createTempFile(prefix, suffix, *attributes)");]
[line 556:
                   return createTempFile;]
```

```
[line 558: ]
[line 559:
               private static final Path createTempFile(String str, String str2,
FileAttribute<?>... attributes) throws IOException {]
                   Intrinsics.checkNotNullParameter(attributes, "attributes");]
[line 560:
[line 561:
                   Path createTempFile = Files.createTempFile(str, str2,
(FileAttribute[]) Arrays.copyOf(attributes, attributes.length));]
                   Intrinsics.checkNotNullExpressionValue(createTempFile,
[line 562:
"createTempFile(prefix, suffix, *attributes)");]
[line 563:
                   return createTempFile;]
```

```
[line 572:
                   }]
[line 573:
                   return PathsKt.createTempFile(path, str, str2,
fileAttributeArr);]
[line 574:
               }]
[line 575: ]
[line 576:
               public static final Path createTempFile(Path path, String str,
String str2, FileAttribute<?>... attributes) throws IOException {]
                   Intrinsics.checkNotNullParameter(attributes, "attributes");]
[line 577:
[line 578:
                   if (path != null) {]
[line 579:
                       Path createTempFile = Files.createTempFile(path, str,
str2, (FileAttribute[]) Arrays.copyOf(attributes, attributes.length));]
[line 580:
                       Intrinsics.checkNotNullExpressionValue(createTempFile,
"createTempFile(directory...fix, suffix, *attributes)");]
[line 581:
                       return createTempFile;]
[line 582:
                   }]
                   Path createTempFile2 = Files.createTempFile(str, str2,
[line 583:
(FileAttribute[]) Arrays.copyOf(attributes, attributes.length));]
[line 584:
                   Intrinsics.checkNotNullExpressionValue(createTempFile2,
"createTempFile(prefix, suffix, *attributes)");]
[line 585:
                   return createTempFile2;]
```

There is 'createTempFile()' found in file 'com/journeyapps/barcodescanner/CaptureManager.java':

## Reference:

https://developer.android.com/training/basics/data-storage/files.html

# OBJECT DESERIALIZATION FOUND [SAST] [M7] [CWE-502]

WARNING

# **Description:**

Object deserialization performed on an untrusted resource (e.g. user-supplied input or external storage), can be dangerous if the data for deserialization is tampered with by an attacker.

## Example of secure code:

```
// Use only serialization when you have the control over data
```

## Example of insecure code:

There is 'implements Serializable' found in file 'kotlin/Pair.java':

```
[line 8: /* loaded from: classes2.dex */]
[line 9: public final class Pair<A, B> implements Serializable {]
[line 10: private final A first;]
```

There is 'implements Serializable' found in file 'kotlin/Triple.java':

```
[line 8: /* loaded from: classes2.dex */]
[line 9: public final class Triple<A, B, C> implements Serializable {]
[line 10: private final A first;]
```

There is 'implements Serializable' found in file 'kotlin/Result.java':

```
[line 12: /* loaded from: classes2.dex */]
[line 13: public final class Result<T> implements Serializable {]
[line 14:         public static final Companion Companion = new Companion(null);]
```

There is 'implements Serializable' found in file

'kotlin/reflect/jvm/internal/impl/incremental/components/Position.java':

```
[line 6: /* loaded from: classes2.dex */]
[line 7: public final class Position implements Serializable {]
[line 8: public static final Companion Companion = new Companion(null);]
```

There is 'implements Serializable' found in file

'kotlin/reflect/jvm/internal/impl/protobuf/GeneratedMessageLite.java':

```
[line 17: /* loaded from: classes4.dex */]
[line 18: public abstract class GeneratedMessageLite extends AbstractMessageLite
implements Serializable {]
[line 19:]
```

There is 'implements Serializable' found in file 'kotlin/reflect/jvm/internal/pcollections/MapEntry.java':

```
[line 5: /* loaded from: classes3.dex */]
[line 6: final class MapEntry<K, V> implements Serializable {]
[line 7: public final K key;]
```

There is 'implements Serializable' found in file 'kotlin/jvm/internal/Ref.java':

```
/* loaded from: classes2.dex */]
[line 9:
              public static final class ObjectRef<T> implements Serializable {]
[line 10:
[line 11:
                  public T element;]
              /* loaded from: classes2.dex */]
[line 18:
              public static final class ByteRef implements Serializable {]
[line 19:
[line 20:
                  public byte element;]
              /* loaded from: classes2.dex */]
[line 27:
[line 28:
              public static final class ShortRef implements Serializable {]
                  public short element;]
[line 29:
[line 36:
              /* loaded from: classes2.dex */]
[line 37:
              public static final class IntRef implements Serializable {]
[line 38:
                  public int element;]
              /* loaded from: classes2.dex */]
[line 45:
              public static final class LongRef implements Serializable { ]
[line 46:
[line 47:
                  public long element;]
              /* loaded from: classes2.dex */]
[line 54:
              public static final class FloatRef implements Serializable {]
[line 55:
[line 56:
                  public float element;]
              /* loaded from: classes2.dex */]
[line 63:
[line 64:
              public static final class DoubleRef implements Serializable {]
[line 65:
                  public double element;]
[line 72:
              /* loaded from: classes2.dex */]
              public static final class CharRef implements Serializable { ]
[line 73:
[line 74:
                  public char element;]
              /* loaded from: classes2.dex */]
[line 81:
              public static final class BooleanRef implements Serializable {]
[line 82:
[line 83:
                  public boolean element;]
```

There is 'implements Serializable' found in file 'kotlin/jvm/internal/CallableReference.java':

There is 'implements Serializable' found in file 'kotlin/coroutines/CombinedContext.java':

There is 'implements Serializable' found in file 'kotlin/text/Regex.java':

There is 'implements Serializable' found in file 'kotlin/random/XorWowRandom.java':

```
[line 8: /* loaded from: classes2.dex */]
[line 9: public final class XorWowRandom extends Random implements Serializable
{]
[line 10: private static final Companion Companion = new Companion(null);]
```

There is 'implements Serializable' found in file 'kotlin/random/Random.java':

There is 'implements Serializable' found in file 'kotlin/random/PlatformRandom.java':

```
[line 10: /* loaded from: classes2.dex */]
[line 11: final class PlatformRandom extends AbstractPlatformRandom implements
Serializable {]
[line 12: private static final Companion Companion = new Companion(null);]
```

There is 'implements Serializable' found in file 'defpackage/aq.java':

```
[line 5: /* loaded from: classes2.dex */]
[line 6: public final class aq implements Serializable {]
[line 7:]
```

There is 'implements Serializable' found in file 'smurf/seal/common/crypto/SealCrypto.java':

```
[line 14: /* loaded from: classes3.dex */]
[line 15: public class SealCrypto implements Serializable {]
[line 16:]
```

There is 'implements Serializable' found in file 'com/raon/gson/internal/LinkedTreeMap.java':

```
[line 16: /* loaded from: classes2.dex */]
[line 17: public final class LinkedTreeMap<K, V> extends AbstractMap<K, V>
implements Serializable {]
[line 18: static final /* synthetic */ boolean $assertionsDisabled = false;]
```

There is 'implements Serializable' found in file 'com/raon/gson/internal/LinkedHashTreeMap.java':

```
[line 17: /* loaded from: classes2.dex */]
[line 18: public final class LinkedHashTreeMap<K, V> extends AbstractMap<K, V>
implements Serializable
[line 19: static final /* synthetic */ boolean $assertionsDisabled = false;]
```

There is 'getSerializable()' found in file 'dw/HandlerC0280ax.java':

There is 'getSerializable()' found in file 'com/raonsecure/touchen/onepass/sdk/op\_ac.java':

```
[line 392: bundle2.putSerializable("p7SignedDataList",
bundle.getSerializable("p7SignedDataList"));]
[line 393: }]
```

There is 'getSerializableExtra()' found in file 'com/raonsecure/touchen/onepass/sdk/op\_ac.java':

There is 'getSerializableExtra()' found in file 'com/ebay/kr/common/permission/PermissionActivity.java':

## Reference:

• <a href="https://developer.android.com/reference/android/os/Bundle.html">https://developer.android.com/reference/android/os/Bundle.html</a>

# FRAGMENT INJECTION [SAST]

WARNING

## **Description:**

The mobile application contains exported activities(s) that extend the PreferenceActivity class and does not make use of isValidFragment. This can result in a malicious application on the same device using the vulnerable activity

to reach components that may otherwise not be accessible, and perform unauthorized actions.

There is 'PreferenceActivity' found in file 'de/greenrobot/event/util/ErrorDialogManager.java':

## Reference:

https://www.synopsys.com/blogs/software-security/fragment-injection/

# DYNAMIC LOAD OF CODE [SAST] [M7] [CWE-94]

WARNING

## **Description:**

The mobile application uses dynamic load of executable code. Under certain circumstances, dynamic load of code can be dangerous. For example, if the code is located on an external storage (e.g. SD card), this can lead to code injection vulnerability if the external storage is world readable and/or writable and an attacker can access it.

## Example of secure code:

## Example of insecure code:

```
Object test = loader.loadClass("Test", true).newInstance();
```

There is 'ClassLoader' found in file 'org/restlet/representation/ObjectRepresentation.java':

```
[line 19:
              public ObjectRepresentation(Representation representation) throws
IOException, ClassNotFoundException, IllegalArgumentException {]
                  this(representation, (ClassLoader) null);]
[line 20:
[line 21:
              }]
[line 22: ]
[line 23:
              public ObjectRepresentation(Representation representation,
ClassLoader ClassLoader) throws IOException, ClassNotFoundException,
IllegalArgumentException {]
                  this(representation, ClassLoader,
[line 24:
VARIANT_OBJECT_BINARY_SUPPORTED, VARIANT_OBJECT_XML_SUPPORTED);]
[line 25:
              }]
[line 26: ]
[line 27:
              public ObjectRepresentation(Representation representation, final
```

```
ClassLoader ClassLoader, boolean z, boolean z2) throws IOException, ClassNotFoundException, IllegalArgumentException {] [line 28: super(MediaType.APPLICATION_JAVA_OBJECT);]
```

There is 'ClassLoader' found in file 'org/restlet/service/TaskService.java':

There is 'ClassLoader' found in file 'org/restlet/resource/ClientResource.java':

There is 'ClassLoader' found in file 'org/restlet/engine/Engine.java':

```
[line 45: import org.restlet.engine.security.SmtpPlainHelper;]
[line 46: import org.restlet.engine.util.EngineClassLoader;]
[line 47: import org.restlet.routing.VirtualHost;]
```

```
[line 66:
                                        private static volatile Engine instance;]
[line 67:
                                        private volatile ClassLoader ClassLoader; ]
                                        private LoggerFacade loggerFacade;]
[line 68:
[line 73:
                                        private final List<ConnectorHelper<Server>> registeredServers;]
                                        private volatile ClassLoader userClassLoader;;]
[line 74:
[line 75:]
[line 145:
                                           public static URL getResource(String str) {]
[line 146:
                                                      return getInstance().getClassLoader().getResource(str);]
[line 147:
                                           }]
[line 149:
                                           public static Class<?> loadClass(String str) throws
ClassNotFoundException {]
[line 150:
                                                      return getInstance().getClassLoader().loadClass(str);]
[line 151:
                                           }]
[line 178:
                                                      } else {]
[line 179:
                                                                 this.classLoader = createClassLoader();]
                                                                 this.userClassLoader = null;]
[line 180:
[line 181:
                                                                 try {]
                                                                             this.loggerFacade = (LoggerFacade)
[line 182:
\texttt{get} \textcolor{red}{\textbf{ClassLoader}} (\ ). \textbf{loadClass} (\textbf{System.getProperty} (\ "org.restlet.engine.loggerFacadeClast)) and \textbf{ClassLoader} (\ ). \textbf{loadClass} (\textbf{System.getProperty}) (\ "org.restlet.engine.loggerFacadeClast) (\ ). \textbf{loadClass} (\textbf{System.getProperty}) (\ "org.restlet.engine.loggerFacadeClast) (\ ). \textbf{loadClass} (\textbf{System.getProperty}) (\ "org.restlet.engine.loggerFacadeClast) (\ ). \textbf{loadClass} (\
ss", "org.restlet.engine.log.LoggerFacade")).newInstance();]
[line 183:
                                                                 } catch (Exception e) {]
[line 205: ]
[line 206:
                                           protected ClassLoader createClassLoader() {]
[line 207:
                                                      return new EngineClassLoader(this);]
[line 208:
                                          }]
[line 308: ]
[line 309:
                                          public ClassLoader getClassLoader() {]
[line 310:
                                                      return this. ClassLoader; ]
[line 311:
                                          }]
[line 344: ]
[line 345:
                                           public ClassLoader getUserClassLoader() {]
                                                      return this.userClassLoader;]
[line 346:
[line 347:
                                           }]
[line 374: ]
[line 375:
                                          public void registerHelper(ClassLoader ClassLoader, String str,
List list, Class cls) {]
```

```
[line 431:
               public void registerHelpers(String str, List<?> list, Class<?>
cls) throws IOException {]
                   ClassLoader classLoader = getClassLoader();]
[line 432:
[line 433:
                   Enumeration<URL> resources = ClassLoader.getResources(str);]
[line 434:
                   if (resources != null) {]
[line 435:
                       while (resources.hasMoreElements()) {]
[line 436:
                           registerHelpers(ClassLoader, resources.nextElement(),
list, cls);]
[line 437:
                       }]
```

There is 'ClassLoader' found in file 'org/restlet/engine/util/EngineClassLoader.java':

```
[line 20:
              /* JADX WARN: Removed duplicated region for block: B:19:0x0022
A[EXC_TOP_SPLITTER, SYNTHETIC] */]
              @Override // java.lang.ClassLoader]
[line 21:
[line 22:
[line 29:
                      org.restlet.engine.Engine r0 = r2.getEngine()]
                      java.lang.ClassLoader r0 = r0.getUserClassLoader()]
[line 30:
                      if (r0 == 0) goto L_0x000f]
[line 31:
                      java.lang.Thread r0 = java.lang.Thread.currentThread()]
[line 38:
                      java.lang.ClassLoader r0 = r0.getContextClassLoader()]
[line 39:
[line 40:
                      if (r0 == 0) goto L_0x0020]
[line 52:
                  */]
[line 53:
                  throw new UnsupportedOperationException("Method not decompiled:
org.restlet.engine.util.Engine<mark>ClassLoader</mark>.findClass(java.lang.String):java.lang.C
lass");]
[line 54:
              }]
[line 55: ]
              @Override // java.lang.ClassLoader]
[line 56:
[line 57:
              protected URL findResource(String str) {]
[line 58:
                  ClassLoader contextClassLoader;
                  ClassLoader userClassLoader =
[line 59:
getEngine().getUserClassLoader();]
[line 60:
                  URL resource = userClassLoader != null ?
userClassLoader.getResource(str) : null;]
                  return (resource != null || (contextClassLoader =
[line 61:
Thread.currentThread().getContextClassLoader()) == null) ? resource :
contextClassLoader.getResource(str);]
[line 62:
              }]
[line 63: ]
[line 64:
              @Override // java.lang.ClassLoader
[line 65:
              protected Enumeration<URL> findResources(String str) throws
IOException {]
[line 66:
                  ClassLoader contextClassLoader; ]
[line 67:
                  ClassLoader userClassLoader =
getEngine().getUserClassLoader();]
[line 68:
                  Enumeration<URL> resources = userClassLoader != null ?
userClassLoader.getResources(str) : null;]
[line 69:
                  return (resources != null || (contextClassLoader =
Thread.currentThread().getContextClassLoader()) == null) ? resources :
contextClassLoader.getResources(str);]
[line 70:
              }]
```

```
[line 75: ]
[line 76: @Override // java.lang.ClassLoader]
```

```
[line 77: public Enumeration<URL> getResources(String str) throws IOException
{]
```

There is 'ClassLoader' found in file 'org/restlet/engine/util/ContextualRunnable.java':

```
[line 3: public abstract class ContextualRunnable implements Runnable {]
             private ClassLoader contextClassLoader =
[line 4:
Thread.currentThread().getContextClassLoader();]
[line 5: ]
             public ClassLoader getContextClassLoader() {]
[line 6:
[line 7:
                 return this.contextClassLoader; ]
[line 8:
             }]
[line 9: ]
[line 10:
              public void setContextClassLoader(ClassLoader ClassLoader) {]
[line 11:
                  this.contextClassLoader = ClassLoader; ]
[line 12:
              }]
```

There is 'ClassLoader' found in file 'org/restlet/engine/local/ClapClientHelper.java':

```
LocalReference localReference = new
[line 83:
LocalReference(request.getResourceRef());]
                      ClassLoader ClassLoader = null;
[line 84:
                      if (localReference.getClapAuthorityType() == 1 ||
[line 85:
localReference.getClapAuthorityType() == 0) {]
                          Object obj =
[line 86:
request.getAttributes().get("org.restlet.clap.ClassLoader");]
                          if (obj != null) {]
[line 87:
                              classLoader = (ClassLoader) obj;]
[line 88:
[line 89:
                          } else {]
[line 90:
                              classLoader = getClass().getClassLoader();]
[line 91:
                          }]
[line 92:
                      } else if (localReference.getClapAuthorityType() == 2) {]
[line 93:
                          classLoader = ClassLoader.getSystemClassLoader();]
                      } else if (localReference.getClapAuthorityType() == 3) {]
[line 94:
[line 95:
                          classLoader =
```

```
Thread.currentThread().getContextClassLoader();]
[line 96: }]
[line 97: handleClassLoader(request, response, ClassLoader);]
[line 98: return;]
```

There is 'ClassLoader' found in file 'kotlin/reflect/jvm/internal/UtilKt.java':

```
[line 74: /* compiled from: util.kt */]
[line 75: "defaultPrimitiveValue", "", "type", "Ljava/lang/reflect/Type;",
"deserializeToDescriptor", "D", "M",
"Lkotlin/reflect/jvm/internal/impl/protobuf/MessageLite;", "moduleAnchor",
"Ljava/lang/Class;", "proto", "nameResolver",
"Lkotlin/reflect/jvm/internal/impl/metadata/deserialization/NameResolver;",
"typeTable",
"Lkotlin/reflect/jvm/internal/impl/metadata/deserialization/TypeTable;",
"metadataVersion",
"Lkotlin/reflect/jvm/internal/impl/metadata/deserialization/BinaryVersion;",
"createDescriptor", "Lkotlin/Function2;",
"Lkotlin/reflect/jvm/internal/impl/serialization/deserialization/MemberDeserializ
er;", "Lkotlin/ExtensionFunctionType;", "
(Ljava/lang/Class;Lorg/jetbrains/kotlin/protobuf/MessageLite;Lorg/jetbrains/kotli
n/metadata/deserialization/NameResolver;Lorg/jetbrains/kotlin/metadata/deserializ
ation/TypeTable;Lorg/jetbrains/kotlin/metadata/deserialization/BinaryVersion;Lkot
lin/jvm/functions/Function2;)Lorg/jetbrains/kotlin/descriptors/CallableDescriptor
;", "loadClass", "ClassLoader"[CUTTED]]
[line 76: /* loaded from: classes2.dex */]
```

```
[line 140:
                   return loadClass(ClassLoader, asString, asString2, i);]
[line 141:
               }]
[line 142: ]
[line 143:
               private static final Class<?> loadClass(ClassLoader ClassLoader,
String str, String str2, int i) {]
                   if (Intrinsics.areEqual(str, "kotlin")) {]
[line 144:
[line 196:
                   }]
                   return ReflectJavaClassFinderKt.tryLoadClass(ClassLoader,
[line 197:
str3);]
[line 198:
               }]
[line 291:
                       Name name = (Name) entry.getKey();]
[line 292:
                       ClassLoader classLoader = javaClass.getClassLoader();]
                       Intrinsics.checkNotNullExpressionValue(classLoader,
[line 293:
"annotationClass.ClassLoader");]
[line 294:
                       Object runtimeValue = toRuntimeValue((ConstantValue)
entry.getValue(), ClassLoader);]
[line 295:
                       Pair pair = runtimeValue == null ? null :
TuplesKt.to(name.asString(), runtimeValue);]
[line 302: ]
[line 303:
               private static final Object toRuntimeValue(ConstantValue<?>
constantValue, ClassLoader ClassLoader) {]
                   if (constantValue instanceof AnnotationValue) {]
[line 304:
[line 307:
                   if (constantValue instanceof ArrayValue) {]
[line 308:
                       return arrayToRuntimeValue((ArrayValue) constantValue,
ClassLoader(); ]
[line 309:
                   }]
[line 312:
                       Name name = (Name) value.component2();]
                       Class loadClass$default = loadClass$default(ClassLoader,
[line 313:
(ClassId) value.component1(), 0, 4, null);]
[line 314:
                       if (loadClass$default == null) {]
                           KClassValue.Value.NormalClass normalClass =
[line 321:
(KClassValue.Value.NormalClass) value2;]
                           return loadClass(ClassLoader,
normalClass.getClassId(), normalClass.getArrayDimensions());]
[line 323:
                       } else if (value2 instanceof KClassValue.Value.LocalClass)
{]
[line 355:
               */]
[line 356:
               private static final java.lang.Object
arrayToRuntimeValue(kotlin.reflect.jvm.internal.impl.resolve.constants.ArrayValue
```

```
r6, java.lang.<mark>ClassLoader</mark> r7) {]
[line 357: /*]
```

#### There is 'ClassLoader' found in file

'kotlin/reflect/jvm/internal/KDeclarationContainerImpl\$Data\$moduleData\$2.java':

There is 'ClassLoader' found in file 'kotlin/reflect/jvm/internal/ModuleByClassLoaderKt.java':

```
[line 9: import
kotlin.reflect.jvm.internal.impl.descriptors.runtime.structure.ReflectClassUtilKt
;]
[line 10: /* compiled from: moduleByClassLoader.kt */]
[line 11: @Metadata(d1 = {"\setminus u0000}
\n\u0000\n\u0002\u0018\u0002\n\u0002\u0018\u0002\n\u0002\u0018\u0002\n\u0002\u001
8\u0002\n\u0000\n\u0002\u0010\u0002\n\u0000\n\u00002\u0018\u00002\n\u0000\u001a\b\u
0010\u0005\u001a\u00020\u0006H\u0000\u001a\u0010\u0010\u0007\u001a\u00020\u0004*\
u0006\u0012\u0002\b\u00030\bH\u0000\"
\u0010\u0000\u001a\u0014\u0012\u0004\u0012\u00020\u0002\u0012\n\u0012\b\u0012\u00
04\u0012\u00020\u00040\u00030\u0001X\u0082\u0004¢\u0006\u0002\n\u0000"\u0006\t"},
d2 = {"moduleByClassLoader", "Ljava/util/concurrent/ConcurrentMap;",
"Lkotlin/reflect/jvm/internal/WeakClassLoaderBox;",
"Ljava/lang/ref/WeakReference;",
"Lkotlin/reflect/jvm/internal/impl/descriptors/runtime/components/RuntimeModuleDa
ta;", "clearModuleBy<mark>ClassLoader</mark>Cache", "", "getOrCreateModule",
"Ljava/lang/Class;", "kotlin-reflection"}, k = 2, mv = \{1, 6, 0\}, xi = 48)]
[line 12: /* loaded from: classes2.dex */]
[line 13: public final class ModuleByClassLoaderKt {]
              private static final ConcurrentMap<WeakClassLoaderBox,</pre>
```

```
WeakReference<RuntimeModuleData>> moduleByClassLoader = new ConcurrentHashMap();]
[line 15:]
```

```
Intrinsics.checkNotNullParameter(cls, "<this>");]
[line 17:
[line 18:
                  ClassLoader safeClassLoader =
ReflectClassUtilKt.getSafeClassLoader(cls);]
                  WeakClassLoaderBox weakClassLoaderBox = new
[line 19:
WeakClassLoaderBox(safeClassLoader);]
[line 20:
                  ConcurrentMap<WeakClassLoaderBox,
WeakReference<RuntimeModuleData>> concurrentMap = moduleByClassLoader;]
[line 21:
                  WeakReference<RuntimeModuleData> weakReference =
concurrentMap.get(weakClassLoaderBox);]
                  if (weakReference != null) {]
[line 22:
```

```
[line 26:
[line 27:
                       concurrentMap.remove(weakClassLoaderBox, weakReference);]
[line 28:
                   }]
                   RuntimeModuleData create =
[line 29:
RuntimeModuleData.Companion.create(safeClassLoader);
[line 30:
                   while (true) {]
[line 31:
                       try {]
[line 32:
                           ConcurrentMap<WeakClassLoaderBox,
WeakReference<RuntimeModuleData>> concurrentMap2 = moduleByClassLoader;]
                           WeakReference<RuntimeModuleData> putIfAbsent =
[line 33:
concurrentMap2.putIfAbsent(weak<mark>ClassLoader</mark>Box, new WeakReference<>(create));]
                           if (putIfAbsent == null) {]
[line 34:
```

There is 'ClassLoader' found in file 'kotlin/reflect/jvm/internal/ReflectionFactoryImpl.java':

```
[line 158: KClassCacheKt.clearKClassCache();]
[line 159: ModuleByClassLoaderKt.clearModuleByClassLoaderCache();]
[line 160: }]
```

There is 'ClassLoader' found in file 'kotlin/reflect/jvm/internal/KPackageImpl\$Data\$multifileFacade\$2.java':

There is 'ClassLoader' found in file 'kotlin/reflect/jvm/internal/WeakClassLoaderBox.java':

```
[line 5: import kotlin.jvm.internal.Intrinsics;]
[line 6: /* compiled from: moduleByClassLoader.kt */]
[line 7: @Metadata(d1 =
{"\u00000\n\u0002\u0018\u0002\n\u0002\u0010\u0000\n\u0000\n\u0002\u0018\u0002\n\u
0002\b\u0002\n\u0002\u0010\b\n\u0002\b\u0003\n\u0002\u0018\u0002\n\u0002\b\u0007\
n\u0002\u0010\u000b\n\u0002\b\u0003\n\u0002\u0010\u000e\n\u0000\b\u0002\u0018\u00
002\u00020\u0001B\r\u0012\u0006\u0010\u0002\u001a\u00020\u0003¢
\u0006\u0002\u0010\u0004J\u0013\u0010\u0011\u001a\u00020\u00122\b\u0010\u0013\u00
1a\u0004\u0018\u00010\u0001H\u0096\u0002J\b\u0010\u0014\u001a\u00020\u0006H\u0016
\verb|J\b\u0010\u0015\u001a\u00020\u0016H\u0011\u0010\u0005\u0001a\u00020\u0006\\
\u0006\b\n\u0000\u001a\u0004\b\u0007\u0010\bR\u0017\u0010\t\u001a\b\u0012\u0004\u
0012\u00020\u00030\n¢
\u0006\b\n\u0000\u001a\u0004\b\u000b\u0010\fR\u001c\u0010\r\u001a\u0004\u0018\u00
010\u0003X\u0086\u000e¢
\u0006\u000e\n\u0000\u001a\u0004\b\u000e\u0010\u000f\"\u0004\b\u0010\u0010\u0004"
\u0006\u0017"}, d2 = {"Lkotlin/reflect/jvm/internal/WeakClassLoaderBox;", "",
"classLoader", "Ljava/lang/ClassLoader;", "(Ljava/lang/ClassLoader;)V",
"identityHashCode", "", "getIdentityHashCode", "()I", "ref",
"Ljava/lang/ref/WeakReference;", "getRef", "()Ljava/lang/ref/WeakReference;",
"temporaryStrongRef", "getTemporaryStrongRef", "()Ljava/lang/ClassLoader;",
"setTemporaryStrongRef", "equals", "", "other", "hashCode", "toString", "",
"kotlin-reflection"}, k = 1, mv = \{1, 6, 0\}, xi = 48)]
[line 8: /* loaded from: classes2.dex */]
[line 9: final class WeakClassLoaderBox {]
              private final int identityHashCode;]
[line 10:
[line 11:
              private final WeakReference<ClassLoader> ref;]
[line 12:
              private ClassLoader temporaryStrongRef;]
[line 13: ]
[line 14:
              public WeakClassLoaderBox(ClassLoader ClassLoader) {]
[line 15:
                  Intrinsics.checkNotNullParameter(classLoader, "ClassLoader");]
                  this.ref = new WeakReference<>(ClassLoader);]
[line 16:
                  this.identityHashCode = System.identityHashCode(ClassLoader);]
[line 17:
                  this.temporaryStrongRef = <a href="ClassLoader">ClassLoader</a>;]
[line 18:
[line 19:
              }]
[line 20: ]
[line 21:
              public final void setTemporaryStrongRef(ClassLoader ClassLoader) {]
[line 22:
                  this.temporaryStrongRef = ClassLoader; ]
[line 23:
              }]
```

There is 'ClassLoader' found in file 'kotlin/reflect/jvm/internal/KDeclarationContainerImpl.java':

```
if (charAt == 'L') {]
[line 436:
[line 437:
                        ClassLoader safeClassLoader =
ReflectClassUtilKt.getSafeClassLoader(getJClass());]
[line 438:
                        String substring = str.substring(i + 1, i2 - 1);]
[line 439:
                        Intrinsics.checkNotNullExpressionValue(substring, "this as
java.lang.String...ing(startIndex, endIndex)");]
[line 440:
                        Class<?> loadClass =
safeClassLoader.loadClass(StringsKt.replace$default(substring, '/', (char)
ClassUtils.PACKAGE_SEPARATOR_CHAR, false, 4, (Object) null));]
                        Intrinsics.checkNotNullExpressionValue(loadClass,
[line 441:
"jClass.safe<mark>ClassLoader</mark>.l...d - 1).replace('/', '.'))");]
[line 442:
                        return loadClass;]
```

There is 'ClassLoader' found in file 'kotlin/reflect/jvm/internal/calls/AnnotationConstructorCallerKt.java':

There is 'ClassLoader' found in file 'kotlin/reflect/jvm/internal/impl/resolve/OverridingUtil.java':

```
[line 57: private static final KotlinTypeChecker.TypeConstructorEquality
DEFAULT_TYPE_CONSTRUCTOR_EQUALITY;]
[line 58: private static final List<ExternalOverridabilityCondition>
EXTERNAL_CONDITIONS =
CollectionsKt.toList(ServiceLoader.load(ExternalOverridabilityCondition.class,
ExternalOverridabilityCondition.class.getClassLoader()));]
[line 59: private final KotlinTypeChecker.TypeConstructorEquality
equalityAxioms;]
```

#### There is 'ClassLoader' found in file

'kotlin/reflect/jvm/internal/impl/serialization/deserialization/builtins/BuiltInsResourceLoader.java':

#### There is 'ClassLoader' found in file

'kotlin/reflect/jvm/internal/impl/builtins/BuiltInsLoader\$Companion\$Instance\$2.java':

There is 'ClassLoader' found in file 'kotlin/reflect/jvm/internal/impl/descriptors/DescriptorVisibilities.java':

#### There is 'ClassLoader' found in file

'kotlin/reflect/jvm/internal/impl/descriptors/runtime/components/ReflectJavaClassFinderKt.java':

```
[line 11: return Class.forName(fqName, false, ClassLoader);]
[line 12: } catch (ClassNotFoundException unused) {]
```

## There is 'ClassLoader' found in file

'kotlin/reflect/jvm/internal/impl/descriptors/runtime/components/ReflectJavaClassFinder.java':

```
[line 16: public final class ReflectJavaClassFinder implements JavaClassFinder {]
[line 17: private final ClassLoader ClassLoader;]
[line 18:]
```

#### There is 'ClassLoader' found in file

'kotlin/reflect/jvm/internal/impl/descriptors/runtime/components/RuntimeModuleData.java':

```
[line 46: ]
[line 47:
                   public final RuntimeModuleData create(ClassLoader ClassLoader)
{]
                       Intrinsics.checkNotNullParameter(classLoader,
[line 48:
"ClassLoader");]
[line 49:
                       ReflectKotlinClassFinder reflectKotlinClassFinder = new
ReflectKotlinClassFinder(ClassLoader);]
[line 50:
                       ClassLoader classLoader2 = Unit.class.getClassLoader();]
[line 51:
                       Intrinsics.checkNotNullExpressionValue(classLoader2,
"Unit::class.java.<mark>ClassLoader</mark>");]
                       DeserializationComponentsForJava.Companion.ModuleData
[line 52:
createModuleData =
Deserialization Components For Java. Companion. create Module Data (reflect Kotlin Class Finches Laboration Components For Java.) \\
der, new ReflectKotlinClassFinder(classLoader2), new
ReflectJavaClassFinder(classLoader), Intrinsics.stringPlus("runtime module for ",
ClassLoader), RuntimeErrorReporter.INSTANCE,
RuntimeSourceElementFactory.INSTANCE);]
[line 53:
                       return new
RuntimeModuleData(createModuleData.getDeserializationComponentsForJava().getCompo
nents(), new
PackagePartScopeCache(createModuleData.getDeserializedDescriptorResolver(),
reflectKotlinClassFinder), null);]
```

#### There is 'ClassLoader' found in file

'kotlin/reflect/jvm/internal/impl/descriptors/runtime/components/ReflectKotlinClassFinder.java':

```
[line 24: ReflectKotlinClass create;]
[line 25: Class<?> tryLoadClass =
ReflectJavaClassFinderKt.tryLoadClass(this.ClassLoader, str);]
[line 26: KotlinClassFinder.Result.KotlinClass kotlinClass = null;]
```

## There is 'ClassLoader' found in file

'kotlin/reflect/ivm/internal/impl/descriptors/runtime/structure/ReflectClassUtilKt.java':

```
[line 57: ]
[line 58:
               public static final ClassLoader getSafeClassLoader(Class<?> cls) {]
[line 59:
                   Intrinsics.checkNotNullParameter(cls, "<this>");]
[line 60:
                   ClassLoader classLoader = cls.getClassLoader();]
[line 61:
                   if (ClassLoader != null) {]
[line 62:
                       return <a href="ClassLoader">ClassLoader</a>; ]
[line 63:
                   }]
[line 64:
                   ClassLoader systemClassLoader =
ClassLoader.getSystemClassLoader();]
[line 65:
                   Intrinsics.checkNotNullExpressionValue(systemClassLoader,
"getSystemClassLoader()");]
[line 66:
                   return systemClassLoader;]
[line 67:
               }]
```

#### There is 'ClassLoader' found in file

'kotlin/reflect/jvm/internal/impl/descriptors/runtime/structure/Java8ParameterNamesLoader.java':

There is 'ClassLoader' found in file 'kotlin/internal/PlatformImplementationsKt.java':

```
[line 89: } catch (ClassCastException e) {]
[line 90: ClassLoader classLoader = obj.getClass().getClassLoader();]
```

There is 'ClassLoader' found in file 'kotlin/concurrent/ThreadsKt.java':

```
[line 9: /* compiled from: Thread.kt */]
[line 10: @Metadata(d1 =
{"\u0000:\n\u0000\n\u0002\u0018\u0002\n\u0000\n\u0002\u0010\u000b\n\u0002\b\u0002
\n\u0002\u0018\u0002\n\u0000\n\u0002\u0010\u000e\n\u0000\n\u0002\u0010\b\n\u0000\
n\u0002\u0018\u0002\n\u0002\u0010\u0002\n\u0002\b\u0002\n\u0002\u0010\u0000\n\u00
02\u0018\u0002\n\u0002\b\u0003\u001aJ\u0010\u0000\u001a\u00020\u00012\b\b\u0002\u
0010\u0002\u001a\u00020\u00032\b\b\u0002\u0010\u0004\u001a\u00020\u00032\n\b\u000
2\u0010\u0005\u0001a\u0004\u00018\u00010\u00062\n\b\u00002\u0010\u0007\u0001a\u0004\u
0018\u00010\b2\b\b\u0002\u0010\t\u001a\u00020\n2\f\u0010\u000b\u001a\b\u0012\u000
4\u0012\u00020\r0\f\u001a3\u0010\u000e\u001a\u0002H\u000f\"\b\b\u0000\u0010\u000f
*\u00020\u0010*\b\u0012\u0004\u0012\u0002H\u000f0\u00112\f\u0010\u0012\u001a\b\u0
012\u0004\u0012\u0002H\u000f0\fH\u0087\bø\u0001\u0000¢
\u0006\u0002\u0010\u0013\u0082\u0002\u0007\n\u0005\b\u009920\u0001"\u0006\u0014"}
, d2 = {"thread", "Ljava/lang/Thread;", "start", "", "isDaemon",
"contextClassLoader", "Ljava/lang/ClassLoader;",
AppMeasurementSdk.ConditionalUserProperty.NAME, "",
Constants.FirelogAnalytics.PARAM_PRIORITY, "", "block", "Lkotlin/Function0;", "",
"getOrSet", ExifInterface.GPS_DIRECTION_TRUE, "", "Ljava/lang/ThreadLocal;",
"default", "
(Ljava/lang/ThreadLocal; Lkotlin/jvm/functions/Function0; )Ljava/lang/Object; ",
"kotlin-stdlib"}, k = 2, mv = \{1, 6, 0\}, xi = 48)]
[line 11: /* loaded from: classes2.dex */]
[line 12: public final class ThreadsKt {]
              public static /* synthetic */ Thread thread$default(boolean z,
boolean z2, ClassLoader ClassLoader, String str, int i, Function0 function0, int
i2, Object obj) {]
[line 14:
                  int i3 = i;1
                  ClassLoader classLoader2 = ClassLoader;]
[line 15:
[line 16:
                  boolean z3 = z2;
[line 25:
                  if ((i2 & 4) != 0) {]
[line 26:
                      ClassLoader2 = null;]
[line 27:
                  }]
[line 33:
                  }]
```

return thread(z4, z3, ClassLoader2, str2, i3, function0);]

[line 34:

[line 35:

}]

```
[line 42: */]
[line 43: public static final java.lang.Thread thread(boolean r2, boolean r3,
java.lang.ClassLoader r4, java.lang.String r5, int r6, final
kotlin.jvm.functions.Function0<kotlin.Unit> r7) {]
[line 44: /*]
```

```
[line 59: if (r4 == 0) goto L_0x001f]

[line 60: r1.setContextClassLoader(r4)]

[line 61: L_0x001f:]
```

There is 'ClassLoader' found in file 'kotlin/coroutines/jvm/internal/ModuleNameRetriever.java':

There is 'ClassLoader' found in file 'retrofit2/Retrofit.java':

```
[line 48: validateServiceInterface(cls);]
[line 49: return (T) Proxy.newProxyInstance(cls.getClassLoader(), new
Class[]{cls}, new InvocationHandler() { // from class: retrofit2.Retrofit.1]
[line 50: private final Platform platform = Platform.get();]
```

There is 'ClassLoader' found in file 'dw/AbstractC0744zo.java':

```
[line 236: Bundle bundle2 = (Bundle) parcelable;]
[line 237: bundle2.setClassLoader(ClassLoader);]
[line 238: short Zj3 = (short) (C0694yd.Zj() ^ 26161);]
```

```
[line 383: @Override // androidx.viewpager.widget.PagerAdapter]
[line 384: public void restoreState(Parcelable parcelable, ClassLoader
ClassLoader) {]
[line 385: qKW(302708, parcelable, ClassLoader);]
[line 386: }]
```

There is 'ClassLoader' found in file 'dw/C0585uq.java':

```
[line 487: */]
[line 488: public static void zE(dalvik.system.PathClassLoader r11,
java.io.File r12, java.util.List<java.io.File> r13) throws java.lang.Exception {]
[line 489: /*]
```

```
[line 492: */]
[line 493: throw new UnsupportedOperationException("Method not
decompiled: dw.C0585uq.zE(dalvik.system.PathClassLoader, java.io.File,
java.util.List):void");]
[line 494: }]
```

There is 'ClassLoader' found in file 'dw/Fq.java':

```
[line 21: import kotlin.text.StringsKt__StringsJVMKt;]
[line 22: yList;", "Lcom/ebay/kr/widget/FragmentTabPagerItem;",
"getAllPagerItemList", "()Ljava/util/ArrayList;", "setAllPagerItemList", "
(Ljava/util/ArrayList;)V", "loopingItemCount", "", "getLoopingItemCount", "()I",
"mContextWrap", "Ljava/lang/ref/WeakReference;", "mCurTransaction",
"Landroidx/fragment/app/FragmentTransaction;", "mCurrentPrimaryItem",
"Landroidx/fragment/app/Fragment;", "mCurrentPrimaryItemIndex", "mFragments",
"Ljava/util/HashMap;", "Lkotlin/collections/HashMap;", "mSavedState",
"Landroidx/fragment/app/Fragment$SavedState;", "pagerItemList",
"getPagerItemList", "setPagerItemList", "clearCachedFragments", "",
"createFragment", "position", "destroyItem", "container",
"Landroid/view/ViewGroup;", "object", "", "finishUpdate", "getCount",
"getCurrentItem", "getItem", "getItemPosition", "instantiateItem",
"isViewFromObject", "", "view", "Landroid/view/View;", "notifyDataSetChanged",
"onDestroy", "restoreState", "state", "Landroid/os/Parcelable;", "loader",
"Ljava/lang/ClassLoader; [CUTTED]]
[line 23: /* loaded from: classes.dex */]
```

```
[line 405: Bundle bundle2 = (Bundle) parcelable;]
[line 406: bundle2.setClassLoader(ClassLoader);]
[line 407: short bF8 = (short) (C0157Py.bF() ^ (-27781));]
```

There is 'ClassLoader' found in file 'dw/C0506g0.java':

There is 'ClassLoader' found in file 'dw/C0677yD.java':

```
[line 6: import com.raonsecure.oms.auth.utility.crypto.oms_ka;]
[line 7: import dalvik.system.PathClassLoader;]
[line 8: import java.io.File;]
```

```
[line 1373: bWW.Zh(Vq.yy);]
[line 1374: C0585uq.zE(pathClassLoader, file2, uA);]
[line 1375: eWW.jh(Vq.yy);]
```

There is 'ClassLoader' found in file 'dw/C0409jx.java':

There is 'ClassLoader' found in file 'com/interezen/mobile/android/app/II3GService.java':

There is 'ClassLoader' found in file 'com/ahnlab/enginesdk/SDKVerify.java':

There is 'ClassLoader' found in file 'com/ahnlab/enginesdk/DummyContext.java':

```
[line 182: @Override // android.content.Context]
[line 183: public ClassLoader getClassLoader() {]
[line 184: return null;]
```

## Reference:

- <a href="https://developer.android.com/reference/java/lang/ClassLoader.html">https://developer.android.com/reference/java/lang/ClassLoader.html</a>
- <a href="https://developer.android.com/reference/dalvik/system/DexClassLoader.html">https://developer.android.com/reference/dalvik/system/DexClassLoader.html</a>
- <a href="https://developer.android.com/reference/java/security/SecureClassLoader.html">https://developer.android.com/reference/java/security/SecureClassLoader.html</a>
- <a href="https://developer.android.com/reference/java/net/URLClassLoader.html">https://developer.android.com/reference/java/net/URLClassLoader.html</a>

# **MISSING ANTI-EMULATION [SAST]**

WARNING

## **Description:**

The mobile application does not use any anti-emulation or anti-debugger techniques (e.g. detecting rooted devices or checking if contacts are authentic).

This can significantly facilitate application debugging and reverse-engineering processes.

#### Reference:

<a href="https://github.com/strazzere/anti-emulator">https://github.com/strazzere/anti-emulator</a>

# USAGE OF IMPLICIT INTENT [SAST] [M1] [CWE-927]

WARNING

## **Description:**

The mobile application uses implicit intent that may be insecure under certain conditions.

Intents enable mobile applications to communicate with each other by requesting to perform different actions for which they are better suited. An implicit intent, however, does not specify to which particular application it sends a request to perform an action. If a malicious application is installed on victim's device, it may also receive the implicit intent, respond to it and perform some action instead, or in addition to, a legitimate application.

# Example of secure code:

```
Intent downloadIntent = new Intent(this, DownloadService.class);
```

# Example of insecure code:

```
Intent sendIntent = new Intent();
```

There is 'new Intent()' found in file 'defpackage/aj.java':

There is 'new Intent()' found in file 'dw/Qz.java':

There is 'new Intent()' found in file 'dw/ActivityC0422kU.java':

There is 'new Intent()' found in file 'dw/C0514qZ.java':

There is 'new Intent()' found in file 'dw/DialogInterface\$OnClickListenerC0537gz.java':

There is 'new Intent()' found in file 'com/chuckerteam/chucker/api/Chucker.java':

There is 'new Intent()' found in file 'com/raonsecure/oms/asm/api/proc\_dialog/ASMOpenSettingsHandler.java':

There is 'new Intent()' found in file 'com/raonsecure/oms/asm/api/proc\_dialog/ASMAuthenticateHandler.java':

There is 'new Intent()' found in file 'com/raonsecure/oms/asm/api/proc\_dialog/ASMDeregisterHandler.java':

There is 'new Intent()' found in file 'com/raonsecure/oms/asm/api/proc\_dialog/ASMGetInfoHandler.java':

## There is 'new Intent()' found in file

'com/raonsecure/oms/asm/api/proc\_dialog/ASMGetRegistrationsHandler.java':

## There is 'new Intent()' found in file

'com/raonsecure/oms/asm/api/dialog/samsungpass/SPassManagerActivitry.java':

```
[line 426:
                       dismissLodingView();]
[line 427:
                       Intent intent = new Intent();]
[line 428:
                       Bundle bundle = new Bundle();]
[line 736:
                                SPassManagerActivitry.this.AUTH_TOKEN =
authenticateResult.getSvcAuthToken();]
[line 737:
                                Intent intent = new Intent();]
[line 738:
                                Bundle bundle = new Bundle();]
                                SPassManagerActivitry.this.AUTH_TOKEN =
[line 969:
authenticateResult.getSvcAuthToken();]
[line 970:
                                Intent intent = new Intent();]
[line 971:
                                Bundle bundle = new Bundle();]
[line 1162:
                                 SPassManagerActivitry.this.AUTH_TOKEN =
authenticateResult.getSvcAuthToken();]
                                 Intent intent = new Intent();]
[line 1163:
                                 Bundle bundle = new Bundle();]
[line 1164:
[line 1612:
                                 }]
[line 1613:
                                 Intent intent = new Intent();]
[line 1614:
                                 Bundle bundle = new Bundle();]
[line 1785:
                    this.mResultText += oms_jj.J("TP@W\u0007JRZD\\TJ-");]
[line 1786:
                    Intent intent = new Intent();]
[line 1787:
                    Bundle bundle = new Bundle();]
[line 1902:
                             } else if
(SPassManagerActivitry.this.mPassService.deleteCertificate(SPassManagerActivitry.
this.convertToX509Certificate(certificate),
SPassManagerActivitry.this.MAGIC_CODE)) {]
[line 1903:
                                 Intent intent = new Intent();]
[line 1904:
                                 Bundle bundle = new Bundle();]
[line 2030:
                                 }]
[line 2031:
                                 Intent intent = new Intent();]
[line 2032:
                                 Bundle bundle = new Bundle();]
[line 2068:
                    dismissLodingView();]
[line 2069:
                    Intent intent = new Intent();]
[line 2070:
                    Bundle bundle = new Bundle();]
[line 2085:
                    dismissLodingView();]
                    Intent intent = new Intent();]
[line 2086:
```

[line 2087:

[line 374:

[line 375:

```
[line 2102: dismissLodingView();]
[line 2103: Intent intent = new Intent();]
[line 2104: Bundle bundle = new Bundle();]

There is 'new Intent()' found in file 'com/raonsecure/oms/asm/api/dialog/ui/mfinger/FingerMainActivity.java':

[line 373: OnePassLogger.d("FingerMainActivity", oms_ym.J("#&\u0003#"), oms_q.J("Ly^\u007fK"));]
```

Bundle bundle = new Bundle();]

Intent intent = new Intent();]

Bundle bundle = new Bundle();]

There is 'new Intent()' found in file

'com/raonsecure/oms/asm/api/dialog/ui/mfinger/tee/FingerMainActivityKeyChainSign.java':

#### There is 'new Intent()' found in file

'com/raonsecure/oms/asm/api/dialog/ui/mfinger/tee/BiometricPromptMainActivityKeyChainSign.java':

#### There is 'new Intent()' found in file

'com/raonsecure/oms/asm/api/dialog/ui/mfinger/biometric/BiometricPromptMainAcitivity.java':

```
[line 484:          OnePassLogger.d(CLASS_NAME,
oms_md.J("\u0014G\u0002E(P\u001ap\u0011G\fG"), oms_pj.J("v/d)q"));]
[line 485:          Intent intent = new Intent();]
[line 486:          Bundle bundle = new Bundle();]
```

There is 'new Intent()' found in file 'com/raonsecure/touchen/onepass/sdk/OPClientListActivity.java':

There is 'new Intent()' found in file 'com/ebay/kr/common/permission/PermissionActivity.java':

There is 'new Intent()' found in file 'com/raon/fido/sw/asm/api/ASMProcessorActivity.java':

```
[line 375:
                   String d = aSMResponse.d();]
[line 376:
                   new Intent().putExtra("message", d);]
                   Bundle bundle = new Bundle();]
[line 377:
[line 391:
                   String d = aSMResponse.d();]
[line 392:
                   new Intent().putExtra("message", d);]
                   Bundle bundle = new Bundle();]
[line 393:
[line 403:
                   String d = aSMResponse.d();1
[line 404:
                   new Intent().putExtra("message", d);]
[line 405:
                   Bundle bundle = new Bundle();]
[line 423:
                   String d = aSMResponse.d();]
[line 424:
                   new Intent().putExtra("message", d);]
                   Bundle bundle = new Bundle();]
[line 425:
```

There is 'new Intent()' found in file 'com/raon/fido/client/asm/ui/AsmListContext.java':

There is 'new Intent()' found in file 'com/raon/fido/client/asm/process/ASMResponder.java':

```
[line 268: intent2.putExtra("UAFIntentType",
"UAF_OPERATION_RESULT");]
```

There is 'new Intent()' found in file 'com/raon/fido/client/process/UAFClientActivity.java':

```
[line 88:
                      UAFProcessor.m48G();]
[line 89:
                      Intent intent = new Intent();]
[line 90:
                      intent.putExtra("UAFIntentType", this.uafType);]
[line 100:
                       UAFProcessor.m48G();]
[line 101:
                       Intent intent2 = new Intent();]
[line 102:
                       intent2.putExtra("UAFIntentType", this.uafType);]
[line 150:
                           UAFProcessor.m48G();]
[line 151:
                           Intent intent2 = new Intent();]
                           intent2.putExtra("UAFIntentType", this.uafType);]
[line 152:
[line 164:
                           UAFProcessor.m48G();]
[line 165:
                           Intent intent3 = new Intent();]
                           intent3.putExtra("UAFIntentType", this.uafType);]
[line 166:
[line 182:
                           UAFProcessor.m48G();]
[line 183:
                           Intent intent4 = new Intent();]
[line 184:
                           intent4.putExtra("UAFIntentType",
"UAF_OPERATION_RESULT");]
[line 236:
                   UAFProcessor.m48G();]
[line 237:
                   Intent intent = new Intent();]
```

There is 'new Intent()' found in file 'com/raon/fido/client/process/UAFProcessor.java':

[line 238:

intent.putExtra("UAFIntentType", this.uafType);]

```
[line 326:
                                               UAFProcessor.m48G();]
 [line 327:
                                               Intent intent2 = new Intent();]
 [line 328:
                                               intent2.putExtra("UAFIntentType",
 "UAF_OPERATION_RESULT");]
 [line 341:
                                          UAFProcessor.m48G();]
 [line 342:
                                          Intent intent3 = new Intent();]
                                          intent3.putExtra("UAFIntentType",
 [line 343:
 "UAF_OPERATION_RESULT");]
 [line 398:
                     m48G();]
 [line 399:
                     Intent intent = new Intent();]
 [line 400:
                     intent.putExtra("UAFIntentType", "CHECK_POLICY_RESULT");]
There is 'new Intent()' found in file 'com/raon/fido/client/process/UAFClient.java':
 [line 56:
                             try {]
                                 Intent intent = new Intent();]
 [line 57:
 [line 58:
                                 intent.putExtras(message.getData());]
 [line 66:
                                 UAFProcessor.m48G();]
 [line 67:
                                 Intent intent2 = new Intent();]
                                 intent2.putExtra("UAFIntentType",
 [line 68:
 UAFClient.this.uafType);]
 [line 82:
                                 UAFProcessor.m48G();]
                                 Intent intent3 = new Intent();]
 [line 83:
 [line 84:
                                 intent3.putExtra("UAFIntentType",
 UAFClient.this.uafType);]
 [line 93:
                                 UAFProcessor.m48G();]
 fline 94:
                                 Intent intent4 = new Intent();]
 [line 95:
                                 intent4.putExtra("UAFIntentType",
 "UAF_OPERATION_RESULT");]
 [line 123:
                              UAFProcessor.m48G();]
                              Intent intent = new Intent();]
 [line 124:
                              intent.putExtra("UAFIntentType",
 [line 125:
 UAFClient.this.uafType);]
 [line 294:
                         UAFProcessor.m48G();]
 [line 295:
                         Intent intent2 = new Intent();]
 [line 296:
                         intent2.putExtra("UAFIntentType", this.uafType);]
```

```
[line 305: UAFProcessor.m48G();]
[line 306: Intent intent3 = new Intent();]
[line 307: intent3.putExtra("UAFIntentType", this.uafType);]
[line 325: UAFProcessor m48G():]
```

```
[line 325: UAFProcessor.m48G();]
[line 326: Intent intent2 = new Intent();]
[line 327: intent2.putExtra("UAFIntentType", this.uafType);]
```

```
[line 338: UAFProcessor.m48G();]
[line 339: Intent intent3 = new Intent();]
[line 340: intent3.putExtra("UAFIntentType", this.uafType);]
```

There is 'new Intent()' found in file 'com/intsig/sdk/utils/AppUtils.java':

There is 'new Intent()' found in file 'com/intsig/sdk/activitys/SdkPreviewActivity.java':

#### Reference:

- <a href="https://developer.android.com/guide/components/intents-filters.html">https://developer.android.com/guide/components/intents-filters.html</a>
- https://developer.android.com/training/articles/security-tips.html

## USAGE OF INTENT FILTER [SAST] [M1] [CWE-927]

WARNING

#### Description:

The mobile application uses an intent filter.

Intent filters should not be used for security purposes because they place no restrictions on explicit intents sent to the component, and can allow other applications on the same device to directly interact with them. Intent filters are defined in the Android Manifest file, they let developers choose which type of intents their application components are supposed to receive and handle.

### Example of secure code:

```
// When you use intent-filter, you have to perform input validation in your code.
```

### Example of insecure code:

There is '<intent-filter>' found in file 'android/AndroidManifest.xml':

[line 91: <intent-filter>]

[line 92: <action android:name="com.mysmilepay.app.ui.Setting"/>]

[line 101: <intent-filter>]
[line 102: <action

android:name="com.google.firebase.MESSAGING\_EVENT"/>]

[line 106: <receiver android:exported="true"</pre>

android:name="com.google.firebase.iid.FirebaseInstanceIdReceiver"
android:permission="com.google.android.c2dm.permission.SEND">]

android:name="com.google.android.c2dm.intent.RECEIVE"/>]

[line 128: <service android:enabled="true" android:exported="false"</pre>

android:name="com.samsung.sds.fido.uaf.asm.AsmExternalService">]

android:name="com.samsung.sds.fido.asm.AsmExternalService"/>]

[line 133: <activity android:exported="false"

android:name="com.samsung.sds.fido.uaf.asm.AsmLibActivity"

android:theme="@style/ASMBackgroundTransparent">]

[line 134: <intent-filter>]

[line 135: <data

android:mimeType="application/fido.uaf\_asm+json"/>]

[line 143: <activity android:exported="false"

android:name="com.samsung.sds.fido.uaf.authenticator.AuthenticatorActivity"

android:theme="@style/BackgroundTransparent">]

[line 144: <intent-filter>]
[line 145: <action

android:name="org.fidoalliance.intent.AUTHENTICATOR\_OPERATION"/>]

[line 150: <activity android:exported="false"

android:name="com.samsung.sds.fido.uaf.authenticator.authenticatorcontrol.FidoMan

agerConnectorActivity" android:theme="@style/BackgroundTransparent">]

android:name="org.fidoalliance.intent.BIOMETRICS\_AUTHENTICATOR"/>]

[line 156: <activity android:exported="false"

android:name="com.samsung.sds.fido.uaf.authenticator.authenticatorcontrol.Transac

tionConfirmationActivity" android:screenOrientation="portrait"

#### Reference:

- https://developer.android.com/guide/components/intents-filters.html
- <a href="https://developer.android.com/training/articles/security-tips.html">https://developer.android.com/training/articles/security-tips.html</a>

## **ACTIVITY MISSING SECURE FLAG [SAST]**

WARNING

#### **Description:**

An Activity is missing the secure flag LayoutParams.FLAG\_SECURE. As a result, any sensitive information on the screen will be saved in screenshots which can then be viewed by a malicious application on the same device, or by an attacker with physical access.

There is 'setContentView(' found in file 'dw/DialogC0479oj.java':

There is 'setContentView(' found in file 'dw/C0678yF.java':

There is 'setContentView(' found in file 'com/mysmilepay/app/ui/SettingActivity.java':

There is 'setContentView(' found in file 'com/mysmilepay/app/ui/SmilePayOfflineBarcodeBiggerActivity,java':

```
[line 436: this.Jh = inflate;]
[line 437: setContentView(inflate == null ? null : inflate.getRoot());]
[line 438: ((BarcodeTimerViewModel) IXW(158860, new
Object[0])).getTimerEvent().observe(this, new C0357hW(this, new
SmilePayOfflineBarcodeBiggerActivity$onCreate$1(this)));]
```

There is 'setContentView(' found in file 'com/mysmilepay/app/ui/SplashActivity.java':

There is 'setContentView(' found in file 'com/mysmilepay/app/ui/DeepLinksActivity.java':

There is 'setContentView(' found in file 'com/mysmilepay/app/ui/SmilePayOfflineActivity.java':

```
[line 463: inflate.setClickListener(this);]
[line 464: setContentView(inflate.getRoot());]
[line 465: this.Ke = inflate;]
```

There is 'setContentView(' found in file 'com/mysmilepay/app/ui/CommonWebActivity.java':

```
[line 92: this.onePassViewModel = (OnePassViewModel) new
ViewModelProvider(this).get(OnePassViewModel.class);]
[line 93: setContentView(R.layout.activity_common_web);]
[line 94: CommonWebFragment commonWebFragment = (CommonWebFragment)
getSupportFragmentManager().findFragmentById(R.id.webview_fragment);]
```

There is 'setContentView(' found in file 'com/mysmilepay/app/ui/ErrorActivity, java':

There is 'setContentView(' found in file

'com/raonsecure/oms/asm/api/dialog/samsungpass/SPassProgressbarDialog.java':

#### There is 'setContentView(' found in file

'com/raonsecure/oms/asm/api/dialog/samsungpass/SPassIrisDialog.java':

#### There is 'setContentView(' found in file

'com/raonsecure/oms/asm/api/dialog/samsungpass/SPassManagerActivitry.java':

#### There is 'setContentView(' found in file

'com/raonsecure/oms/asm/api/dialog/samsungpass/SPassFingerDialog.java':

There is 'setContentView(' found in file 'com/raonsecure/oms/asm/api/dialog/ui/pin/NewPinActivity.java':

There is 'setContentView(' found in file 'com/raonsecure/oms/asm/api/dialog/ui/pin/NewPinCustomView.java':

```
[line 1636: ]
[line 1637: private /* synthetic */ void setContentView(int i) {]
[line 1638: OnePassLogger.i("NewPinCustomView", Extension.m360J("+
,\u00067+, 61\u0000e,=2"), oms_gc.J("WkEmP"));]
```

There is 'setContentView(' found in file

'com/raonsecure/oms/asm/api/dialog/ui/mfinger/FingerMainActivity.java':

There is 'setContentView(' found in file

'com/raonsecure/oms/asm/api/dialog/ui/mfinger/tee/FingerMainActivityKeyChainSign.java':

```
[line 133: this.currentRequest =
getIntent().getIntExtra(NewPinActivity.PIN_INTENT_KEY_REQ, -1);]
```

#### There is 'setContentView(' found in file

'com/raonsecure/oms/asm/api/dialog/ui/mfinger/tee/BiometricPromptMainActivityKeyChainSign.java':

### There is 'setContentView(' found in file

'com/raonsecure/oms/asm/api/dialog/ui/mfinger/biometric/BiometricPromptMainAcitivity.java':

There is 'setContentView(' found in file 'com/raonsecure/touchen/onepass/sdk/OPBackgroundActivity.java':

There is 'setContentView(' found in file 'com/raonsecure/touchen/onepass/sdk/OPPlainViewActivity.java':

There is 'setContentView(' found in file 'com/raon/fido/sw/asm/api/ASMProcessorActivity.java':

There is 'setContentView(' found in file 'com/raon/fido/client/asm/ui/AsmListActivity.java':

There is 'setContentView(' found in file 'com/raon/fido/client/process/UAFClientActivity.java':

There is 'setContentView(' found in file 'com/journeyapps/barcodescanner/CaptureActivity.java':

```
[line 22: protected DecoratedBarcodeView initializeContent() {]
[line 23: setContentView(R.layout.zxing_capture);]
[line 24: return (DecoratedBarcodeView)
findViewById(R.id.zxing_barcode_scanner);]
```

There is 'setContentView(' found in file 'com/intsig/sdk/activitys/SdkPreviewActivity.java':

```
[line 127: relativeLayout.addView(this.mPreview, new
RelativeLayout.LayoutParams(-1, -1));]
[line 128: setContentView(relativeLayout);]
[line 129: this.rootView = relativeLayout;]
```

# **External Communications and Outgoing Traffic**

# **Mobile Application Outgoing Traffic**

The following HTTP/S requests were sent by mobile application without interaction with user:

## ● POST https://www.googleapis.com HTTP/1.1

**Date/Time:** Jan 1st, 1970 00:00:00 GMT+0

Requested URL: https://www.googleapis.com:443/androidantiabuse/v1/x/create?alt=PROTO&key=AlzaSyB

ofcZsgLSS7BOnBjZPEkk4rYwzOIz-ITI

#### **Requested HTTP Headers:**

**Content-Type:** application/x-protobuf **User-Agent:** DroidGuard/202414022

Content-Length: 831 Host: www.googleapis.com Connection: Keep-Alive Accept-Encoding: gzip

#### **Response HTTP Headers:**

**Content-Type:** application/x-protobuf **Content-Disposition:** attachment

Vary: Origin Vary: X-Origin Vary: Referer

Date: Thu, 22 Jun 2023 06:33:05 GMT

Server: ESF

**Cache-Control:** private **X-XSS-Protection:** 0

**X-Frame-Options:** SAMEORIGIN **X-Content-Type-Options:** nosniff

Alt-Svc: h3=":443"; ma=2592000,h3-29=":443"; ma=2592000

Transfer-Encoding: chunked

## ■ POST https://www.googleapis.com HTTP/1.1

**Date/Time:** Jan 1st, 1970 00:00:00 GMT+0

Requested URL: https://www.googleapis.com:443/androidantiabuse/v1/x/create?alt=PROTO&key=AlzaSyB

ofcZsgLSS7BOnBjZPEkk4rYwzOIz-ITI

#### **Requested HTTP Headers:**

**Content-Type:** application/x-protobuf **User-Agent:** DroidGuard/202414022

Content-Length: 833 Host: www.googleapis.com Connection: Keep-Alive Accept-Encoding: gzip

**Response HTTP Headers:** 

**Content-Type:** application/x-protobuf **Content-Disposition:** attachment

Vary: Origin Vary: X-Origin Vary: Referer

Date: Thu, 22 Jun 2023 06:33:05 GMT

Server: ESF

**Cache-Control:** private **X-XSS-Protection:** 0

**X-Frame-Options:** SAMEORIGIN **X-Content-Type-Options:** nosniff

**Alt-Svc:** h3=":443"; ma=2592000,h3-29=":443"; ma=2592000

Transfer-Encoding: chunked

### ■ POST https://www.googleapis.com HTTP/1.1

**Date/Time:** Jan 1st, 1970 00:00:00 GMT+0

**Requested URL:** https://www.googleapis.com:443/androidantiabuse/v1/x/create?alt=PROTO&key=AlzaSyBofcZsgLSS7BOnBjZPEkk4rYwzOlz-ITI

#### **Requested HTTP Headers:**

**Content-Type:** application/x-protobuf **User-Agent:** DroidGuard/202414022

Content-Length: 12541 Host: www.googleapis.com Connection: Keep-Alive Accept-Encoding: gzip

#### **Response HTTP Headers:**

**Content-Type:** application/x-protobuf **Content-Disposition:** attachment

Vary: Origin Vary: X-Origin Vary: Referer

Date: Thu, 22 Jun 2023 06:33:07 GMT

Server: ESF

**Cache-Control:** private **X-XSS-Protection:** 0

**X-Frame-Options:** SAMEORIGIN **X-Content-Type-Options:** nosniff

**Alt-Svc:** h3=":443"; ma=2592000,h3-29=":443"; ma=2592000

Transfer-Encoding: chunked

## ● POST https://www.googleapis.com HTTP/1.1

**Date/Time:** Jan 1st, 1970 00:00:00 GMT+0

**Requested URL:** https://www.googleapis.com:443/androidcheck/v1/attestations/adAttest?key=AlzaSyDaepk5bynjTA7ZhzF\_0fzIHIXAkZlz3dA

#### **Requested HTTP Headers:**

Content-Type: application/x-protobuf

Accept-Encoding: gzip

User-Agent: GmsCore/202414022 (generic\_x86\_arm PSR1.180720.122); gzip

**content-length:** 12157 **Host:** www.googleapis.com **Connection:** Keep-Alive

#### **Response HTTP Headers:**

**Content-Type:** application/x-protobuf **Content-Disposition:** attachment

Vary: Origin Vary: X-Origin Vary: Referer

Date: Thu, 22 Jun 2023 06:33:07 GMT

Server: ESF

**Cache-Control:** private **X-XSS-Protection:** 0

**X-Frame-Options:** SAMEORIGIN **X-Content-Type-Options:** nosniff

**Alt-Svc:** h3=":443"; ma=2592000,h3-29=":443"; ma=2592000

Transfer-Encoding: chunked

## GET https://www.googleapis.com HTTP/1.1

**Date/Time:** Jan 1st, 1970 00:00:00 GMT+0

**Requested URL:** https://www.googleapis.com:443/android\_video/v1/config?make=Google&model=AOSP% 20on%20IA%20Emulator&product=sdk\_gphone\_x86\_arm&device=generic\_x86\_arm&devid=&apptype=1&dev type=2&fs=f

#### **Requested HTTP Headers:**

User-Agent: com.google.android.videos/3.28.15(Linux; U; Android 9; en\_US; AOSP on IA Emulator Build/

PSR1.180720.122) gzip
Host: www.googleapis.com
Connection: Keep-Alive
Accept-Encoding: gzip
content-length: 0

#### **Response HTTP Headers:**

**Content-Type:** application/x-protobuf **Content-Disposition:** attachment

Vary: Origin
Vary: X-Origin
Vary: Referer

Date: Thu, 22 Jun 2023 06:33:07 GMT

Server: ESF

**Cache-Control:** private **X-XSS-Protection:** 0

X-Frame-Options: SAMEORIGIN

X-Content-Type-Options: nosniff

**Alt-Svc:** h3=":443"; ma=2592000,h3-29=":443"; ma=2592000

Transfer-Encoding: chunked

## ■ POST https://www.googleapis.com HTTP/1.1

**Date/Time:** Jan 1st, 1970 00:00:00 GMT+0

Requested URL: https://www.googleapis.com:443/androidantiabuse/v1/x/create?alt=PROTO&key=AlzaSyB

ofcZsgLSS7BOnBjZPEkk4rYwzOIz-ITI

#### **Requested HTTP Headers:**

**Content-Type:** application/x-protobuf **User-Agent:** DroidGuard/202414022

Content-Length: 851
Host: www.googleapis.com
Connection: Keep-Alive
Accept-Encoding: gzip

#### **Response HTTP Headers:**

**Content-Type:** application/x-protobuf **Content-Disposition:** attachment

Vary: Origin Vary: X-Origin Vary: Referer

Date: Thu, 22 Jun 2023 06:33:07 GMT

Server: ESF

**Cache-Control:** private **X-XSS-Protection:** 0

**X-Frame-Options:** SAMEORIGIN **X-Content-Type-Options:** nosniff

**Alt-Svc:** h3=":443"; ma=2592000,h3-29=":443"; ma=2592000

Transfer-Encoding: chunked

## ● POST https://www.googleapis.com HTTP/1.1

**Date/Time:** Jan 1st. 1970 00:00:00 GMT+0

**Requested URL:** https://www.googleapis.com:443/androidantiabuse/v1/x/create?alt=PROTO&key=AlzaSyBofcZsgLSS7BOnBjZPEkk4rYwzOlz-ITI

**Requested HTTP Headers:** 

**Content-Type:** application/x-protobuf **User-Agent:** DroidGuard/202414022

Content-Length: 843
Host: www.googleapis.com
Connection: Keep-Alive
Accept-Encoding: gzip

**Response HTTP Headers:** 

**Content-Type:** application/x-protobuf **Content-Disposition:** attachment

Vary: Origin

Vary: X-Origin Vary: Referer

Date: Thu, 22 Jun 2023 06:33:07 GMT

Server: ESF

**Cache-Control:** private **X-XSS-Protection:** 0

**X-Frame-Options:** SAMEORIGIN **X-Content-Type-Options:** nosniff

Alt-Svc: h3=":443"; ma=2592000,h3-29=":443"; ma=2592000

Transfer-Encoding: chunked

## GET https://www.googleadservices.com HTTP/1.1

**Date/Time:** Jan 1st, 1970 00:00:00 GMT+0

**Requested URL:** https://www.googleadservices.com:443/pagead/conversion/1001680686/?bundleid=com. google.android.youtube&appversion=14.19.57&osversion=9&sdkversion=ct-sdk-a-v2.2.4&gms=1&lat=0&rdid=99de9630-88f5-4114-b674-f7ef8a657168&timestamp=1687415553.922&remarketing\_only=1&usage\_tracking\_enabled=0&data.screen\_name=%3CAndroid\_YT\_Open\_App%3E

#### **Requested HTTP Headers:**

User-Agent: Dalvik/2.1.0 (Linux; U; Android 9; AOSP on IA Emulator Build/PSR1.180720.122)

Host: www.googleadservices.com

Connection: Keep-Alive Accept-Encoding: gzip content-length: 0

#### **Response HTTP Headers:**

P3P: policyref="https://www.googleadservices.com/pagead/p3p.xml", CP="NOI DEV PSA PSD IVA IVD O

TP OUR OTR IND OTC"

Timing-Allow-Origin: \*

**Cross-Origin-Resource-Policy:** cross-origin **Content-Type:** text/html; charset=ISO-8859-1

X-Content-Type-Options: nosniff Date: Thu, 22 Jun 2023 06:33:08 GMT

Server: cafe Content-Length: 0 X-XSS-Protection: 0

**Alt-Svc:** h3=":443"; ma=2592000,h3-29=":443"; ma=2592000

## ♠ HEAD https://youtubei.googleapis.com HTTP/1.1

**Date/Time:** Jan 1st, 1970 00:00:00 GMT+0

Requested URL: https://youtubei.googleapis.com:443/generate\_204

#### **Requested HTTP Headers:**

Host: youtubei.googleapis.com

Connection: keep-alive

User-Agent: com.google.android.youtube/1419573700 (Linux; U; Android 9; en\_US; AOSP on IA Emulato

r; Build/PSR1.180720.122; Cronet/75.0.3770.16)

Accept-Encoding: gzip, deflate

content-length: 0

### **Response HTTP Headers:** Content-Length: 0

Cross-Origin-Resource-Policy: cross-origin Date: Thu, 22 Jun 2023 06:33:08 GMT

**Alt-Svc:** h3=":443"; ma=2592000,h3-29=":443"; ma=2592000



#### GET https://www.youtube.com HTTP/1.1

Date/Time: Jan 1st, 1970 00:00:00 GMT+0

Requested URL: https://www.youtube.com:443/csi\_204?v=3&s=youtube\_android&action=process&yt\_lt=col d&yt\_fi=0&mod\_li=0&conn=3&it=ndps.267,app\_l.488,f\_proc.736&cplatform=tablet&cbr=com.google.androi d.youtube&c=android&cmodel=AOSP%20on%20IA%20Emulator&cos=Android&csdk=28&cbrver=14.19.57&c ver=14.19.57&cosver=9&cbrand=Google&proc=2

#### **Requested HTTP Headers:**

Host: www.youtube.com Connection: keep-alive

User-Agent: com.google.android.youtube/14.19.57(Linux; U; Android 9; en\_US; AOSP on IA Emulator Buil

d/PSR1.180720.122) gzip Accept-Encoding: gzip, deflate

content-length: 0

#### **Response HTTP Headers:**

Content-Type: text/html; charset=UTF-8 Date: Thu, 22 Jun 2023 06:33:09 GMT

Pragma: no-cache

Expires: Fri, 01 Jan 1990 00:00:00 GMT Cache-Control: no-cache, must-revalidate

X-Content-Type-Options: nosniff Server: Video Stats Server

Content-Length: 0 X-XSS-Protection: 0

X-Frame-Options: SAMEORIGIN

**Alt-Svc:** h3=":443"; ma=2592000,h3-29=":443"; ma=2592000

# **Software Composition Analysis**

The mobile application uses the following external and native libraries:

### External

- org.jsoup
- org.restlet
- kotlinx.parcelize
- kotlinx.android
- kotlinx.coroutines
- defpackage
- de.greenrobot
- setting
- hilt\_aggregated\_deps
- smurf.seal
- com.tbuonomo
- com.chuckerteam
- com.raonsecure
- com.ebay
- com.interezen
- com.samsungsds
- com.ahnlab
- com.raon
- com.journeyapps
- com.bumptech
- com.intsig

## **Android Native**

- androidx.transition
- androidx.asynclayoutinflater

- androidx.tracing
- androidx.collection
- androidx.exifinterface
- androidx.core
- androidx.drawerlayout
- androidx.interpolator
- androidx.versionedparcelable
- androidx.activity
- androidx.viewpager
- androidx.vectordrawable
- androidx.lifecycle
- androidx.legacy
- androidx.documentfile
- androidx.annotation
- androidx.print
- androidx.localbroadcastmanager
- androidx.cursoradapter
- androidx.multidex
- androidx.browser
- androidx.dynamicanimation
- androidx.biometric
- androidx.swiperefreshlayout
- androidx.fragment
- androidx.loader

androidx.recyclerview

- androidx.arch
- androidx.appcompat
- androidx.viewpager2
- androidx.customview
- androidx.databinding
- androidx.slidingpanelayout
- androidx.coordinatorlayout
- androidx.savedstate
- androidx.cardview
- androidx.viewbinding
- androidx.constraintlayout
- androidx.media
- dagger
- kotlin
- retrofit2
- javax.inject
- javax.annotation
- android.support
- com.android

# The End of Report

Upgrade from Free Community Edition to <a href="mailto:lmmuniWeb@Al Platform">lmmuniWeb@Al Platform</a>

