

# ANDROID STATIC ANALYSIS REPORT



## DigiLocker (6.4.2)

File Name: com.digilocker.apk

Package Name: com.digilocker.android

Average CVSS Score: 6.6

App Security Score: 10/100 (CRITICAL RISK)

Trackers Detection: 3/335

Scan Date: Jan. 20, 2021, 12:53 p.m.

File Name: com.digilocker.apk

Size: 54.75MB

**MD5**: 19766c8659b29e1d9594ae45586b9966

**SHA1:** cd5b517521f8b9e92a2be514b6b2cf340cd24940

SHA256: 923f5f00b673a8b077304d819928c00526f21be1a1b4053106222768e224676c

#### **i** APP INFORMATION

App Name: DigiLocker

Package Name: com.digilocker.android

Main Activity: com.digilocker.android.ui.activity.dashboard.activity.MainDashboardActivity

Target SDK: 30 Min SDK: 21 Max SDK:

Android Version Name: 6.4.2

Android Version Code: 531

#### **APP COMPONENTS**

Activities: 101 Services: 26 Receivers: 11 Providers: 7 Exported Activities: 3 Exported Services: 1 Exported Providers: 0

### **\*** CERTIFICATE INFORMATION

APK is signed v1 signature: True v2 signature: True v3 signature: True Found 1 unique certificates Subject: CN=Digi locker

Signature Algorithm: rsassa\_pkcs1v15 Valid From: 2015-10-16 04:35:15+00:00 Valid To: 2114-09-22 04:35:15+00:00

Issuer: CN=Digi locker Serial Number: 0x466cbec1 Hash Algorithm: sha256

md5: ba370cd1de7f3ad7c35380bf2cc225c6

sha1: c3331c515e871a1d7f248a212388ea0eba1fd39d

sha256: 5cb0d90e404df479494ff46a3550a93d71f370c4e49cad659ec7a6f009d6d9f0

PublicKey Algorithm: rsa

Bit Size: 2048

Fingerprint: 9cc3c8d0e1d14ede8b20be4dc191a7fd4fab7f3df828589fb89a4bc8d881f914

| STATUS  | DESCRIPTION   |
|---------|---|
| secure  | Application is signed with a code signing certificate   |
| warning | Application is signed with v1 signature scheme, making it vulnerable to Janus vulnerability on Android <7.0 |

#### **⋮** APPLICATION PERMISSIONS

| PERMISSION          | STATUS  | INFO                  | DESCRIPTION                               |
|---------------------|---------|-----------------------|---|
| android.permission. | unknown | Unknown<br>permission | Unknown permission from android reference |

| PERMISSION  | STATUS    | INFO  | DESCRIPTION   |
|---|-----------|---|---|
| android.permission.GET_ACCOUNTS                         | dangerous | list accounts   | Allows access to the list of accounts in the Accounts Service.  |
| android.permission.READ_PROFILE                         | dangerous | read the user's<br>personal profile<br>data               | Allows an application to read the user's personal profile data.   |
| android.permission.USE_CREDENTIALS                      | dangerous | use the<br>authentication<br>credentials of an<br>account | Allows an application to request authentication tokens.   |
| android.permission.MANAGE_ACCOUNTS                      | dangerous | manage the accounts list                                  | Allows an application to perform operations like adding and removing accounts and deleting their password.  |
| android.permission.AUTHENTICATE_ACCOUNTS                | dangerous | act as an account<br>authenticator                        | Allows an application to use the account authenticator capabilities of the Account Manager, including creating accounts as well as obtaining and setting their passwords.                                     |
| android.permission.INTERNET                             | normal    | full Internet access                                      | Allows an application to create network sockets.  |
| com.google.android.apps.photos.permission.GOOGLE_PHOTOS | unknown   | Unknown<br>permission                                     | Unknown permission from android reference   |
| android.permission.WRITE_SETTINGS                       | dangerous | modify global<br>system settings                          | Allows an application to modify the system's settings data. Malicious applications can corrupt your system's configuration.   |
| android.permission.READ_SYNC_STATS                      | normal    | read sync statistics                                      | Allows an application to read the sync stats; e.g. the history of syncs that have occurred.   |
| android.permission.READ_SYNC_SETTINGS                   | normal    | read sync settings  | Allows an application to read the sync settings, such as whether sync is enabled for Contacts.  |
| android.permission.WRITE_SYNC_SETTINGS                  | normal    | write sync settings                                       | Allows an application to modify the sync settings, such as whether sync is enabled for Contacts.  |
| android.permission.BROADCAST_STICKY                     | normal    | send sticky<br>broadcast                                  | Allows an application to send sticky broadcasts, which remain after the broadcast ends. Malicious applications can make the phone slow or unstable by causing it to use too much memory.                      |
| android.permission.ACCESS_NETWORK_STATE                 | normal    | view network<br>status                                    | Allows an application to view the status of all networks.   |
| android.permission.RECEIVE_BOOT_COMPLETED               | normal    | automatically start<br>at boot                            | Allows an application to start itself as soon as the system has finished booting. This can make it take longer to start the phone and allow the application to slow down the overall phone by always running. |
| android.permission.WAKE_LOCK                            | normal    | prevent phone<br>from sleeping                            | Allows an application to prevent the phone from going to sleep.   |
| android.permission.CAMERA                               | dangerous | take pictures and videos                                  | 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.  |
| android.permission.FOREGROUND_SERVICE                   | normal    |   | Allows a regular application to use<br>Service.startForeground  |
| android.permission.WRITE_EXTERNAL_STORAGE               | dangerous | read/modify/delete<br>external storage<br>contents        | Allows an application to write to external storage.   |

| PERMISSION   | STATUS    | INFO                           | DESCRIPTION  |
|--|-----------|--------------------------------|--|
| android.permission.READ_EXTERNAL_STORAGE                               | dangerous | read external storage contents | Allows an application to read from external storage. |
| android.permission.WRITE_INTERNAL_STORAGE                              | unknown   | Unknown<br>permission          | Unknown permission from android reference            |
| com.google.android.c2dm.permission.RECEIVE                             | signature | C2DM permissions               | Permission for cloud to device messaging.            |
| com.google.android.finsky.permission.BIND_GET_INSTALL_REFERRER_SERVICE | unknown   | Unknown<br>permission          | Unknown permission from android reference            |

## **APKID ANALYSIS**

| FILE        | DETAILS         |  |  |  |  |
|-------------|-----------------|--|--|--|--|
|             | FINDINGS        | DETAILS  |  |  |  |
| classes.dex | Anti-VM Code    | Build.FINGERPRINT check Build.MODEL check Build.MANUFACTURER check Build.BRAND check Build.DEVICE check Build.PRODUCT check Build.TAGS check SIM operator check possible ro.secure check |  |  |  |
|             | Anti Debug Code | Debug.isDebuggerConnected() check  |  |  |  |
|             | Compiler        | r8   |  |  |  |

### BROWSABLE ACTIVITIES

| ACTIVITY   | INTENT  |
|--|---|
| com.google.firebase.auth.internal.GenericldpActivity | Schemes: genericidp://,<br>Hosts: firebase.auth,<br>Paths: /, |
| com.google.firebase.auth.internal.RecaptchaActivity  | Schemes: recaptcha://,<br>Hosts: firebase.auth,<br>Paths: /,  |

## **△** NETWORK SECURITY

| NO | SCOPE | SEVERITY | DESCRIPTION   |
|----|-------|----------|---|
| 1  | *     | high     | Base config is insecurely configured to permit clear text traffic to all domains. |

# **Q** MANIFEST ANALYSIS

| NO | ISSUE   | SEVERITY | DESCRIPTION  |
|----|---|----------|--|
| 1  | Clear text traffic is Enabled For App<br>[android:usesCleartextTraffic=true]  | high     | The app intends to use cleartext network traffic, such as cleartext HTTP, FTP stacks, DownloadManager, and MediaPlayer. The default value for apps that target API level 27 or lower is "true". Apps that target API level 28 or higher default to "false". The key reason for avoiding cleartext traffic is the lack of confidentiality, authenticity, and protections against tampering; a network attacker can eavesdrop on transmitted data and also modify it without being detected.   |
| 2  | App has a Network Security Configuration [android:networkSecurityConfig=@xml/network_security_config]   | info     | The Network Security Configuration feature lets apps customize their network security settings in a safe, declarative configuration file without modifying app code. These settings can be configured for specific domains and for a specific app.   |
| 3  | Activity (com.digilocker.android.ui.activity.Uploader) is not<br>Protected.<br>An intent-filter exists.   | high     | An Activity is found to be shared with other apps on the device therefore leaving it accessible to any other application on the device. The presence of intent-filter indicates that the Activity is explicitly exported.  |
| 4  | Broadcast Receiver (com.google.firebase.iid.FirebaseInstanceIdReceiver) is Protected by a permission, but the protection level of the permission should be checked. Permission: com.google.android.c2dm.permission.SEND [android:exported=true] | high     | A Broadcast Receiver is found to be shared with other apps on the device therefore leaving it accessible to any other application on the device. It is protected by a permission which is not defined in the analysed application. As a result, the protection level of the permission should be checked where it is defined. If it is set to normal or dangerous, a malicious application can request and obtain the permission and interact with the component. If it is set to signature, only applications signed with the same certificate can obtain the permission. |
| 5  | Service (androidx.work.impl.background.systemjob.SystemJobService) is Protected by a permission, but the protection level of the permission should be checked. Permission: android.permission.BIND_JOB_SERVICE [android:exported=true]          | high     | A Service is found to be shared with other apps on the device therefore leaving it accessible to any other application on the device. It is protected by a permission which is not defined in the analysed application. As a result, the protection level of the permission should be checked where it is defined. If it is set to normal or dangerous, a malicious application can request and obtain the permission and interact with the component. If it is set to signature, only applications signed with the same certificate can obtain the permission.            |
| 6  | Activity (com.google.firebase.auth.internal.GenericIdpActivity) is not Protected. [android:exported=true]   | high     | An Activity is found to be shared with other apps on the device therefore leaving it accessible to any other application on the device.  |
| 7  | Activity (com.google.firebase.auth.internal.RecaptchaActivity) is not Protected. [android:exported=true]  | high     | An Activity is found to be shared with other apps on the device therefore leaving it accessible to any other application on the device.  |

# </> CODE ANALYSIS

| NO | ISSUE | SEVERITY | STANDARDS | FILES |
|----|-------|----------|-----------|-------|
|----|-------|----------|-----------|-------|

| NO | ISSUE   | SEVERITY | STANDARDS  | FILES  |
|----|---|----------|--|--|
| 1  | The App logs information. Sensitive information should never be logged. | info     | CVSS V2: 7.5 None (high) CWE: CWE-532 Insertion of Sensitive Information into Log File OWASP MASVS: MSTG-STORAGE-3 | defpackage/zf1.java defpackage/zf1.java defpackage/yz1.java defpackage/wz1.java defpackage/wz1.java defpackage/wg1.java defpackage/wg1.java defpackage/my2.java defpackage/my2.java defpackage/og1.java defpackage/og1.java defpackage/og1.java defpackage/sp1.java defpackage/sp2.java defpackage/sp2.java defpackage/sp2.java defpackage/xx.java defpackage/xx.java defpackage/xx.java defpackage/my2.java defpackage/sp2.java defpackage/yg2.java defpackage/yg2.java defpackage/yg2.java defpackage/my2.java defpackage/my2.java defpackage/sp2.java defpackage/sp2.java defpackage/sp2.java defpackage/my2.java defpackage/sp2.java defpackag |

| NO | ISSUE                 | SEVERITY | STANDARDS   | FILES   |
|----|-----------------------|----------|---|---|
| 2  | IP Address disclosure | warning  | CVSS V2: 4.3 None (medium) CWE: CWE-200 Information Exposure OWASP MASVS: MSTG-CODE-2 | defpackage/n04.java defpackage/sv3.java defpackage/tv3.java defpackage/tv3.java defpackage/tv3.java defpackage/mx3.java defpackage/mx3.java defpackage/my3.java defpackage/my3.java defpackage/ry3.java defpackage/ry3.java defpackage/ry3.java defpackage/ry3.java defpackage/ry3.java defpackage/sv3.java defpackage/sv3.java defpackage/sv3.java defpackage/sv3.java defpackage/ev3.java defpackage/wy3.java defpackage/wy3.java defpackage/wy3.java defpackage/wy3.java defpackage/my3.java defpackage/sy3.java defpackage/sy3.java defpackage/sy3.java defpackage/sy3.java defpackage/sy3.java defpackage/sy3.java defpackage/sy3.java defpackage/sy3.java defpackage/my3.java |

| NO | ISSUE  | SEVERITY | STANDARDS  | FILES  |
|----|--|----------|--|--|
| 3  | The App uses an insecure Random<br>Number Generator.   | high     | CVSS V2: 7.5 None (high) CWE: CWE:330 Use of Insufficiently Random Values OWASP Top 10: M5: Insufficient Cryptography OWASP MASVS: MSTG-CRYPTO-6 | defpackage/zl0.java defpackage/ol1.java defpackage/d81.java defpackage/f81.java defpackage/f81.java defpackage/f81.java defpackage/f81.java defpackage/j81.java defpackage/j81.java defpackage/j81.java defpackage/g0.java defpackage/y60.java defpackage/y61.java defpackage/y61.java defpackage/y61.java defpackage/j61.java defpackage/j61.java defpackage/j61.java defpackage/j61.java defpackage/j61.java defpackage/j61.java defpackage/j62.java defpackage/j62.java defpackage/j62.java defpackage/j62.java defpackage/d1.java defpackage/d1.java defpackage/d1.java defpackage/d1.java defpackage/f21.java defpackage/j62.java defpackage/j62.java defpackage/j63.java defpackage/m63.java |
| 4  | App can read/write to External Storage.<br>Any App can read data written to<br>External Storage. | high     | CVSS V2: 5.5 None (medium) CWE: CWE-276 Incorrect Default Permissions OWASP Top 10: M2: Insecure Data Storage OWASP MASVS: MSTG-STORAGE-2        | com/digilocker/android/ui/activity/UploadFile sActivity.java com/digilocker/android/ui/fragment/LocalFile ListFragment.java defpackage/or.java defpackage/xy.java com/digilocker/android/utils/UriUtils.java com/digilocker/android/ui/activity/uploadedo nactivity/ActivityUpload.java  |

| NO | ISSUE  | SEVERITY | STANDARDS   | FILES  |
|----|--|----------|---|--|
| 5  | Files may contain hardcoded sensitive informations like usernames, passwords, keys etc.  | high     | CVSS V2: 7.4 None (high) CWE: CWE-312 Cleartext Storage of Sensitive Information OWASP Top 10: M9: Reverse Engineering OWASP MASVS: MSTG-STORAGE-14               | com/stripe/android/networking/AnalyticsDat aFactory.java com/stripe/android/model/parsers/SetupInte ntJsonParser.java com/stripe/android/model/parsers/SourceJso nParser.java com/stripe/android/model/SourceParams.jav a com/stripe/android/model/SourceParams.jav a com/stripe/android/model/parsers/Ephemer alKeyJsonParser.java com/stripe/android/model/Stripe3ds2AuthPa rams.java com/stripe/android/model/ConfirmStripeInte ntParams.java com/stripe/android/model/ConfirmStripeInte ntParams.java com/stripe/android/view/Stripe3ds2Completi onActivity.java com/stripe/android/model/parsers/PaymentI ntentJsonParser.java com/stripe/android/view/PaymentAuthWebVi ew.java com/stripe/android/PaymentConfiguration.ja va |
| 6  | App creates temp file. Sensitive information should never be written into a temp file.   | high     | CVSS V2: 5.5 None (medium) CWE: CWE-276 Incorrect Default Permissions OWASP Top 10: M2: Insecure Data Storage OWASP MASVS: MSTG-STORAGE-2                         | defpackage/tj.java<br>defpackage/j03.java  |
| 7  | This App uses an SSL Pinning Library (org.thoughtcrime.ssl.pinning) to prevent MITM attacks in secure communication channel.   | secure   | CVSS V2: 0 None (info) OWASP MASVS: MSTG-NETWORK-4  | defpackage/c73.java<br>defpackage/ea3.java<br>defpackage/vn3.java<br>defpackage/fz.java  |
| 8  | App uses SQLite Database and execute raw SQL query. Untrusted user input in raw SQL queries can cause SQL Injection. Also sensitive information should be encrypted and written to the database. | high     | CVSS V2: 5.9 None (medium) CWE: CWE-89 Improper Neutralization of Special Elements used in an SQL Command ('SQL Injection') OWASP Top 10: M7: Client Code Quality | defpackage/vk.java com/digilocker/android/db/DBProvider.java defpackage/291.java defpackage/v93.java defpackage/n82.java com/digilocker/android/providers/FileConten tProvider.java defpackage/wr.java defpackage/wr.java defpackage/r72.java defpackage/li.java defpackage/li.java defpackage/li.java defpackage/n30.java defpackage/v12.java defpackage/n30.java defpackage/n30.java defpackage/v12.java defpackage/v12.java defpackage/v13.java defpackage/y30.java defpackage/aa1.java defpackage/a30.java defpackage/p30.java defpackage/m82.java defpackage/m82.java defpackage/o30.java   |
| 9  | SHA-1 is a weak hash known to have hash collisions.  | high     | CVSS V2: 5.9 None (medium) CWE: CWE-327 Use of a Broken or Risky Cryptographic Algorithm OWASP Top 10: M5: Insufficient Cryptography OWASP MASVS: MSTG-CRYPTO-4   | defpackage/vr2.java<br>defpackage/i03.java<br>defpackage/yy2.java  |
| 10 | This App may have root detection capabilities.   | secure   | CVSS V2: 0 None (info) OWASP MASVS: MSTG-RESILIENCE-1   | defpackage/vr2.java<br>defpackage/yf1.java<br>com/digilocker/android/ui/activity/dashboard<br>/activity/MainDashboardActivity.java   |

| NO | ISSUE   | SEVERITY | STANDARDS   | FILES  |
|----|---|----------|---|--|
| 11 | Insecure WebView Implementation.<br>Execution of user controlled code in<br>WebView is a critical Security Hole.                  | warning  | CVSS V2: 8.8 None (high) CWE: CWE-749 Exposed Dangerous Method or Function OWASP Top 10: M1: Improper Platform Usage OWASP MASVS: MSTG-PLATFORM-7             | com/digilocker/android/ui/webtemplate/Activ<br>ityProfileTemplate.java |
| 12 | This App copies data to clipboard.<br>Sensitive data should not be copied to<br>clipboard as other applications can<br>access it. | info     | CVSS V2: 0 None (info) OWASP MASVS: MSTG-STORAGE-10   | com/digilocker/android/ui/activity/CopyToCli<br>pboardActivity.java    |
| 13 | This App may request root (Super User) privileges.  | high     | CVSS V2: 0 None (info) CWE: CWE-250 Execution with Unnecessary Privileges OWASP MASVS: MSTG-RESILIENCE-1  | defpackage/ft.java   |
| 14 | MD5 is a weak hash known to have hash collisions.   | high     | CVSS V2: 7.4 None (high) CWE: CWE-327 Use of a Broken or Risky Cryptographic Algorithm OWASP Top 10: M5: Insufficient Cryptography OWASP MASVS: MSTG-CRYPTO-4 | defpackage/g91.java<br>defpackage/d82.java                             |

# MISHARED LIBRARY BINARY ANALYSIS

| NO | SHARED OBJECT                         | NX   | PIE  | STACK<br>CANARY  | RELRO   | RPATH   | RUNPATH   | FORTIFY  | SYMBOLS<br>STRIPPED             |
|----|---------------------------------------|--|--|--|---|---|---|--|---------------------------------|
| 1  | lib/armeabi-<br>v7a/libtoolChecker.so | True info The shared object has NX bit set. This marks a memory page non- executable making attacker injected shellcode non- executable. | False high The shared object is built without Position Independent Code flag. In order to prevent an attacker from reliably jumping to, for example, a particular exploited function in memory, Address space layout randomization (ASLR) randomly arranges the address space positions of key data areas of a process, including the base of the executable and the positions of the stack,heap and libraries. Use compiler option -fPIC to enable Position Independent Code. | True info This shared object has a stack canary value added to the stack so that it will be overwritten by a stack buffer that overflows the return address. This allows detection of overflows by verifying the integrity of the canary before function return. | Full RELRO high This shared object does not have RELRO enabled. The entire GOT (.got and .got.plt both) are writable. Without this compiler flag, buffer overflows on a global variable can overwrite GOT entries. Use the option - z,relro,- z,now to enable full RELRO and only -z,relro to enable partial RELRO. | False info The shared object does not have run-time search path or RPATH set. | False info The shared object does not have RUNPATH set. | False warning The shared object does not have any fortified functions. Fortified functions provides buffer overflow checks against glibc's commons insecure functions like strcpy, gets etc. Use the compiler option - D_FORTIFY_SOURCE=2 to fority functions. | True info Symbols are stripped. |

| NO | SHARED OBJECT                           | NX   | PIE  | STACK<br>CANARY  | RELRO   | RPATH   | RUNPATH   | FORTIFY  | SYMBOLS<br>STRIPPED             |
|----|---|--|--|--|---|---|---|--|---------------------------------|
| 2  | lib/armeabi-v7a/libnative-<br>lib-DL.so | True info The shared object has NX bit set. This marks a memory page non- executable making attacker injected shellcode non- executable. | False high The shared object is built without Position Independent Code flag. In order to prevent an attacker from reliably jumping to, for example, a particular exploited function in memory, Address space layout randomization (ASLR) randomly arranges the address space positions of key data areas of a process, including the base of the executable and the positions of the stack,heap and libraries. Use compiler option -fPIC to enable Position Independent Code. | True info This shared object has a stack canary value added to the stack so that it will be overwritten by a stack buffer that overflows the return address. This allows detection of overflows by verifying the integrity of the canary before function return. | Full RELRO high This shared object does not have RELRO enabled. The entire GOT (.got and .got.plt both) are writable. Without this compiler flag, buffer overflows on a global variable can overwrite GOT entries. Use the option - z,relro,- z,now to enable full RELRO and only -z,relro to enable partial RELRO. | False info The shared object does not have run-time search path or RPATH set. | False info The shared object does not have RUNPATH set. | False warning The shared object does not have any fortified functions. Fortified functions provides buffer overflow checks against glibc's commons insecure functions like strcpy, gets etc. Use the compiler option - D_FORTIFY_SOURCE=2 to fority functions. | True info Symbols are stripped. |

| NO | SHARED OBJECT                | NX   | PIE  | STACK<br>CANARY  | RELRO   | RPATH   | RUNPATH   | FORTIFY  | SYMBOLS<br>STRIPPED             |
|----|------------------------------|--|--|--|---|---|---|--|---------------------------------|
| 3  | lib/x86_64/libtoolChecker.so | True info The shared object has NX bit set. This marks a memory page non- executable making attacker injected shellcode non- executable. | False high The shared object is built without Position Independent Code flag. In order to prevent an attacker from reliably jumping to, for example, a particular exploited function in memory, Address space layout randomization (ASLR) randomly arranges the address space positions of key data areas of a process, including the base of the executable and the positions of the stack,heap and libraries. Use compiler option -fPIC to enable Position Independent Code. | False high This shared object does not have a stack canary value added to the stack. Stack canraies are used to detect and prevent exploits from overwriting return address. Use the option - fstack- protector- all to enable stack canaries. | Full RELRO high This shared object does not have RELRO enabled. The entire GOT (.got and .got.plt both) are writable. Without this compiler flag, buffer overflows on a global variable can overwrite GOT entries. Use the option - z,relro,- z,now to enable full RELRO and only -z,relro to enable partial RELRO. | False info The shared object does not have run-time search path or RPATH set. | False info The shared object does not have RUNPATH set. | False warning The shared object does not have any fortified functions. Fortified functions provides buffer overflow checks against glibc's commons insecure functions like strcpy, gets etc. Use the compiler option - D_FORTIFY_SOURCE=2 to fority functions. | True info Symbols are stripped. |

| NO | SHARED OBJECT                      | NX   | PIE  | STACK<br>CANARY  | RELRO   | RPATH   | RUNPATH   | FORTIFY  | SYMBOLS<br>STRIPPED             |
|----|------------------------------------|--|--|--|---|---|---|--|---------------------------------|
| 4  | lib/x86_64/libnative-lib-<br>DL.so | True info The shared object has NX bit set. This marks a memory page non-executable making attacker injected shellcode non-executable. | False high The shared object is built without Position Independent Code flag. In order to prevent an attacker from reliably jumping to, for example, a particular exploited function in memory, Address space layout randomization (ASLR) randomly arranges the address space positions of key data areas of a process, including the base of the executable and the positions of the stack,heap and libraries. Use compiler option -fPIC to enable Position Independent Code. | False high This shared object does not have a stack canary value added to the stack. Stack canraies are used to detect and prevent exploits from overwriting return address. Use the option - fstack- protector- all to enable stack canaries. | Full RELRO high This shared object does not have RELRO enabled. The entire GOT (.got and .got.plt both) are writable. Without this compiler flag, buffer overflows on a global variable can overwrite GOT entries. Use the option - z,relro,- z,now to enable full RELRO and only -z,relro to enable partial RELRO. | False info The shared object does not have run-time search path or RPATH set. | False info The shared object does not have RUNPATH set. | False warning The shared object does not have any fortified functions. Fortified functions provides buffer overflow checks against glibc's commons insecure functions like strcpy, gets etc. Use the compiler option - D_FORTIFY_SOURCE=2 to fority functions. | True info Symbols are stripped. |

| NO | SHARED OBJECT             | NX   | PIE  | STACK<br>CANARY  | RELRO   | RPATH   | RUNPATH   | FORTIFY  | SYMBOLS<br>STRIPPED             |
|----|---------------------------|--|--|--|---|---|---|--|---------------------------------|
| 5  | lib/x86/libtoolChecker.so | True info The shared object has NX bit set. This marks a memory page non- executable making attacker injected shellcode non- executable. | False high The shared object is built without Position Independent Code flag. In order to prevent an attacker from reliably jumping to, for example, a particular exploited function in memory, Address space layout randomization (ASLR) randomly arranges the address space positions of key data areas of a process, including the base of the executable and the positions of the stack,heap and libraries. Use compiler option -fPIC to enable Position Independent Code. | True info This shared object has a stack canary value added to the stack so that it will be overwritten by a stack buffer that overflows the return address. This allows detection of overflows by verifying the integrity of the canary before function return. | Full RELRO high This shared object does not have RELRO enabled. The entire GOT (.got and .got.plt both) are writable. Without this compiler flag, buffer overflows on a global variable can overwrite GOT entries. Use the option - z,relro,- z,now to enable full RELRO and only -z,relro to enable partial RELRO. | False info The shared object does not have run-time search path or RPATH set. | False info The shared object does not have RUNPATH set. | False warning The shared object does not have any fortified functions. Fortified functions provides buffer overflow checks against glibc's commons insecure functions like strcpy, gets etc. Use the compiler option - D_FORTIFY_SOURCE=2 to fority functions. | True info Symbols are stripped. |

| NO | SHARED OBJECT               | NX   | PIE  | STACK<br>CANARY  | RELRO   | RPATH   | RUNPATH   | FORTIFY  | SYMBOLS<br>STRIPPED             |
|----|-----------------------------|--|--|--|---|---|---|--|---------------------------------|
| 6  | lib/x86/libnative-lib-DL.so | True info The shared object has NX bit set. This marks a memory page non- executable making attacker injected shellcode non- executable. | False high The shared object is built without Position Independent Code flag. In order to prevent an attacker from reliably jumping to, for example, a particular exploited function in memory, Address space layout randomization (ASLR) randomly arranges the address space positions of key data areas of a process, including the base of the executable and the positions of the stack,heap and libraries. Use compiler option -fPIC to enable Position Independent Code. | True info This shared object has a stack canary value added to the stack so that it will be overwritten by a stack buffer that overflows the return address. This allows detection of overflows by verifying the integrity of the canary before function return. | Full RELRO high This shared object does not have RELRO enabled. The entire GOT (.got and .got.plt both) are writable. Without this compiler flag, buffer overflows on a global variable can overwrite GOT entries. Use the option - z,relro,- z,now to enable full RELRO and only -z,relro to enable partial RELRO. | False info The shared object does not have run-time search path or RPATH set. | False info The shared object does not have RUNPATH set. | False warning The shared object does not have any fortified functions. Fortified functions provides buffer overflow checks against glibc's commons insecure functions like strcpy, gets etc. Use the compiler option - D_FORTIFY_SOURCE=2 to fority functions. | True info Symbols are stripped. |

| NO | SHARED OBJECT                       | NX   | PIE  | STACK<br>CANARY  | RELRO   | RPATH   | RUNPATH   | FORTIFY  | SYMBOLS<br>STRIPPED             |
|----|-------------------------------------|--|--|--|---|---|---|--|---------------------------------|
| 7  | lib/arm64-<br>v8a/libtoolChecker.so | True info The shared object has NX bit set. This marks a memory page non-executable making attacker injected shellcode non-executable. | False high The shared object is built without Position Independent Code flag. In order to prevent an attacker from reliably jumping to, for example, a particular exploited function in memory, Address space layout randomization (ASLR) randomly arranges the address space positions of key data areas of a process, including the base of the executable and the positions of the stack,heap and libraries. Use compiler option -fPIC to enable Position Independent Code. | False high This shared object does not have a stack canary value added to the stack. Stack canraies are used to detect and prevent exploits from overwriting return address. Use the option - fstack- protector- all to enable stack canaries. | Full RELRO high This shared object does not have RELRO enabled. The entire GOT (.got and .got.plt both) are writable. Without this compiler flag, buffer overflows on a global variable can overwrite GOT entries. Use the option - z,relro,- z,now to enable full RELRO and only -z,relro to enable partial RELRO. | False info The shared object does not have run-time search path or RPATH set. | False info The shared object does not have RUNPATH set. | False warning The shared object does not have any fortified functions. Fortified functions provides buffer overflow checks against glibc's commons insecure functions like strcpy, gets etc. Use the compiler option - D_FORTIFY_SOURCE=2 to fority functions. | True info Symbols are stripped. |

| NO | SHARED OBJECT                         | NX   | PIE  | STACK<br>CANARY  | RELRO   | RPATH   | RUNPATH   | FORTIFY  | SYMBOLS<br>STRIPPED             |
|----|---------------------------------------|--|--|--|---|---|---|--|---------------------------------|
| 8  | lib/arm64-v8a/libnative-lib-<br>DL.so | True info The shared object has NX bit set. This marks a memory page non- executable making attacker injected shellcode non- executable. | False high The shared object is built without Position Independent Code flag. In order to prevent an attacker from reliably jumping to, for example, a particular exploited function in memory, Address space layout randomization (ASLR) randomly arranges the address space positions of key data areas of a process, including the base of the executable and the positions of the stack,heap and libraries. Use compiler option -fPIC to enable Position Independent Code. | False high This shared object does not have a stack canary value added to the stack. Stack canraies are used to detect and prevent exploits from overwriting return address. Use the option - fstack- protector- all to enable stack canaries. | Full RELRO high This shared object does not have RELRO enabled. The entire GOT (.got and .got.plt both) are writable. Without this compiler flag, buffer overflows on a global variable can overwrite GOT entries. Use the option - z,relro,- z,now to enable full RELRO and only -z,relro to enable partial RELRO. | False info The shared object does not have run-time search path or RPATH set. | False info The shared object does not have RUNPATH set. | False warning The shared object does not have any fortified functions. Fortified functions provides buffer overflow checks against glibc's commons insecure functions like strcpy, gets etc. Use the compiler option - D_FORTIFY_SOURCE=2 to fority functions. | True info Symbols are stripped. |

# ■ NIAP ANALYSIS v1.3

| NO | IDENTIFIER      | REQUIREMENT                         | FEATURE                                  | DESCRIPTION  |
|----|-----------------|-------------------------------------|--|--|
| 1  | FCS_RBG_EXT.1.1 | Security Functional<br>Requirements | Random Bit<br>Generation Services        | The application implement DRBG functionality for its cryptographic operations. |
| 2  | FCS_STO_EXT.1.1 | Security Functional<br>Requirements | Storage of Credentials                   | The application does not store any credentials to non-volatile memory.         |
| 3  | FCS_CKM_EXT.1.1 | Security Functional<br>Requirements | Cryptographic Key<br>Generation Services | The application implement asymmetric key generation.                           |
| 4  | FDP_DEC_EXT.1.1 | Security Functional<br>Requirements | Access to Platform<br>Resources          | The application has access to ['camera', 'network connectivity'].              |
| 5  | FDP_DEC_EXT.1.2 | Security Functional<br>Requirements | Access to Platform<br>Resources          | The application has access to no sensitive information repositories.           |
| 6  | FDP_NET_EXT.1.1 | Security Functional<br>Requirements | Network<br>Communications                | The application has user/application initiated network communications.         |

| NO | IDENTIFIER                      | REQUIREMENT  | FEATURE   | DESCRIPTION   |
|----|---------------------------------|--|---|---|
| 7  | FDP_DAR_EXT.1.1                 | Security Functional<br>Requirements                    | Encryption Of<br>Sensitive Application<br>Data                        | The application implement functionality to encrypt sensitive data in non-volatile memory.   |
| 8  | FMT_MEC_EXT.1.1                 | Security Functional<br>Requirements                    | Supported<br>Configuration<br>Mechanism                               | The application invoke the mechanisms recommended by the platform vendor for storing and setting configuration options.   |
| 9  | FTP_DIT_EXT.1.1                 | Security Functional<br>Requirements                    | Protection of Data in<br>Transit                                      | The application does encrypt some transmitted data with HTTPS/TLS/SSH between itself and another trusted IT product.  |
| 10 | FCS_RBG_EXT.2.1,FCS_RBG_EXT.2.2 | Selection-Based<br>Security Functional<br>Requirements | Random Bit<br>Generation from<br>Application                          | The application perform all deterministic random bit generation (DRBG) services in accordance with NIST Special Publication 800-90A using Hash_DRBG. The deterministic RBG is seeded by an entropy source that accumulates entropy from a platform-based DRBG and a software-based noise source, with a minimum of 256 bits of entropy at least equal to the greatest security strength (according to NIST SP 800-57) of the keys and hashes that it will generate.   |
| 11 | FCS_CKM.1.1(1)                  | Selection-Based<br>Security Functional<br>Requirements | Cryptographic<br>Asymmetric Key<br>Generation                         | The application generate asymmetric cryptographic keys not in accordance with FCS_CKM.1.1(1) using key generation algorithm RSA schemes and cryptographic key sizes of 1024-bit or lower.   |
| 12 | FCS_CKM.1.1(3),FCS_CKM.1.2(3)   | Selection-Based<br>Security Functional<br>Requirements | Password<br>Conditioning  | A password/passphrase shall perform [Password-based Key Derivation Functions] in accordance with a specified cryptographic algorithm  |
| 13 | FCS_COP.1.1(1)                  | Selection-Based<br>Security Functional<br>Requirements | Cryptographic<br>Operation -<br>Encryption/Decryption                 | The application perform encryption/decryption in accordance with a specified cryptographic algorithm AES-CBC (as defined in NIST SP 800-38A) mode or AES-GCM (as defined in NIST SP 800-38D) and cryptographic key sizes 256-bit/128-bit.   |
| 14 | FCS_COP.1.1(2)                  | Selection-Based<br>Security Functional<br>Requirements | Cryptographic<br>Operation - Hashing                                  | The application perform cryptographic hashing services not in accordance with FCS_COP.1.1(2) and uses the cryptographic algorithm RC2/RC4/MD4/MD5.  |
| 15 | FCS_COP.1.1(4)                  | Selection-Based<br>Security Functional<br>Requirements | Cryptographic<br>Operation - Keyed-<br>Hash Message<br>Authentication | The application perform keyed-hash message authentication with cryptographic algorithm ['HMAC-SHA-256'].  |
| 16 | FCS_HTTPS_EXT.1.1               | Selection-Based<br>Security Functional<br>Requirements | HTTPS Protocol  | The application implement the HTTPS protocol that complies with RFC 2818.   |
| 17 | FCS_HTTPS_EXT.1.2               | Selection-Based<br>Security Functional<br>Requirements | HTTPS Protocol  | The application implement HTTPS using TLS.  |
| 18 | FCS_HTTPS_EXT.1.3               | Selection-Based<br>Security Functional<br>Requirements | HTTPS Protocol  | The application notify the user and not establish the connection or request application authorization to establish the connection if the peer certificate is deemed invalid.  |
| 19 | FIA_X509_EXT.1.1                | Selection-Based<br>Security Functional<br>Requirements | X.509 Certificate<br>Validation                                       | The application invoked platform-provided functionality to validate certificates in accordance with the following rules: ['The certificate path must terminate with a trusted CA certificate', 'The application validate a certificate path by ensuring the presence of the basicConstraints extension and that the CA flag is set to TRUE for all CA certificates', 'RFC 5280 certificate validation and certificate path validation', 'The application validate the revocation status of the certificate using the Online Certificate Status Protocol (OCSP) as specified in RFC 2560 or a Certificate Revocation List (CRL) as specified in RFC 5759 or an OCSP TLS Status Request Extension (i.e., OCSP stapling) as specified in RFC 6066']. |
| 20 | FIA_X509_EXT.1.2                | Selection-Based<br>Security Functional<br>Requirements | X.509 Certificate<br>Validation                                       | The application treat a certificate as a CA certificate only if the basicConstraints extension is present and the CA flag is set to TRUE.   |

| NO | IDENTIFIER       | REQUIREMENT  | FEATURE                                      | DESCRIPTION   |
|----|------------------|--|--|---|
| 21 | FIA_X509_EXT.2.1 | Selection-Based<br>Security Functional<br>Requirements | X.509 Certificate<br>Authentication          | The application use X.509v3 certificates as defined by RFC 5280 to support authentication for HTTPS , TLS.  |
| 22 | FIA_X509_EXT.2.2 | Selection-Based<br>Security Functional<br>Requirements | X.509 Certificate<br>Authentication          | When the application cannot establish a connection to determine the validity of a certificate, the application allow the administrator to choose whether to accept the certificate in these cases or accept the certificate, or not accept the certificate. |
| 23 | FPT_TUD_EXT.2.1  | Selection-Based<br>Security Functional<br>Requirements | Integrity for<br>Installation and<br>Update  | The application shall be distributed using the format of the platform-<br>supported package manager.  |
| 24 | FCS_CKM.1.1(2)   | Optional Security<br>Functional<br>Requirements        | Cryptographic<br>Symmetric Key<br>Generation | The application shall generate symmetric cryptographic keys using a Random Bit Generator as specified in FCS_RBG_EXT.1 and specified cryptographic key sizes 128 bit or 256 bit.  |

# ♥ DOMAIN MALWARE CHECK

| DOMAIN                          | STATUS | GEOLOCATION  |
|---------------------------------|--------|--|
| google.com                      | good   | IP: 142.250.67.174 Country: United States of America Region: California City: Mountain View Latitude: 37.405991 Longitude: -122.078514 View: Google Map  |
| ssl.google-analytics.com        | good   | IP: 142.250.182.200 Country: United States of America Region: California City: Mountain View Latitude: 37.405991 Longitude: -122.078514 View: Google Map |
| q.stripe.com                    | good   | IP: 54,187.159.182 Country: United States of America Region: Oregon City: Portland Latitude: 45.523449 Longitude: -122.676208 View: Google Map           |
| oauth2.authorization.server.org | good   | IP: 91.195.241.137 Country: Germany Region: Nordrhein-Westfalen City: Koeln Latitude: 50.933331 Longitude: 6.95 View: Google Map                         |
| elibom.digitallocker.gov.in     | good   | IP: 164.100.161.225 Country: India Region: Delhi City: Delhi Latitude: 28.66667 Longitude: 77.216667 View: Google Map                                    |

| DOMAIN                   | STATUS | GEOLOCATION   |
|--------------------------|--------|---|
| files.stripe.com         | good   | IP: 54.187.159.182 Country: United States of America Region: Oregon City: Portland Latitude: 45.523449 Longitude: -122.676208 View: Google Map            |
| firebase.google.com      | good   | IP: 142.250.182.238  Country: United States of America Region: California City: Mountain View Latitude: 37.405991 Longitude: -122.078514 View: Google Map |
| m.stripe.com             | good   | IP: 34.211.99.245 Country: United States of America Region: Oregon City: Portland Latitude: 45.523449 Longitude: -122.676208 View: Google Map             |
| developers.facebook.com  | good   | IP: 31.13.79.18 Country: India Region: Maharashtra City: Mumbai Latitude: 19.01441 Longitude: 72.847939 View: Google Map                                  |
| plus.google.com          | good   | IP: 142.250.67.238  Country: United States of America Region: California City: Mountain View Latitude: 37.405991 Longitude: -122.078514 View: Google Map  |
| www.google-analytics.com | good   | IP: 142.250.67.174  Country: United States of America Region: California City: Mountain View Latitude: 37.405991 Longitude: -122.078514 View: Google Map  |
| digilocker.gov.in        | good   | IP: 164.100.161.225 Country: India Region: Delhi City: Delhi Latitude: 28.66667 Longitude: 77.216667 View: Google Map                                     |
| twitter.com              | good   | IP: 104.244.42.65 Country: United States of America Region: California City: San Francisco Latitude: 37.773968 Longitude: -122.410446 View: Google Map    |
| reports.crashlytics.com  | good   | No Geolocation information available.   |

| DOMAIN              | STATUS | GEOLOCATION  |
|---------------------|--------|--|
| errors.stripe.com   | good   | IP: 54.187.119.242 Country: United States of America Region: Oregon City: Portland Latitude: 45.523449 Longitude: -122.676208 View: Google Map           |
| stripe.com          | good   | IP: 54.187.159.182 Country: United States of America Region: Oregon City: Portland Latitude: 45.523449 Longitude: -122.676208 View: Google Map           |
| www.apache.org      | good   | IP: 95.216.24.32 Country: Finland Region: Uusimaa City: Helsinki Latitude: 60.169521 Longitude: 24.93545 View: Google Map                                |
| owncloud.org        | good   | IP: 78.46.146.179 Country: Germany Region: Sachsen City: Falkenstein Latitude: 50.477879 Longitude: 12.37129 View: Google Map                            |
| owncloud.com        | good   | IP: 78.46.146.179 Country: Germany Region: Sachsen City: Falkenstein Latitude: 50.477879 Longitude: 12.37129 View: Google Map                            |
| www.googleapis.com  | good   | IP: 142.250.182.202 Country: United States of America Region: California City: Mountain View Latitude: 37.405991 Longitude: -122.078514 View: Google Map |
| hooks.stripe.com    | good   | IP: 13.228.224.121 Country: Singapore Region: Singapore City: Singapore Latitude: 1.28967 Longitude: 103.850067 View: Google Map                         |
| fake.url            | good   | No Geolocation information available.  |
| schemas.android.com | good   | No Geolocation information available.  |
| play.google.com     | good   | IP: 172.217.27.206 Country: United States of America Region: California City: Mountain View Latitude: 37.405991 Longitude: -122.078514 View: Google Map  |

| DOMAIN                            | STATUS | GEOLOCATION   |
|-----------------------------------|--------|---|
| pagead2.googlesyndication.com     | good   | IP: 142.250.67.194 Country: United States of America Region: California City: Mountain View Latitude: 37.405991 Longitude: -122.078514 View: Google Map   |
| app-measurement.com               | good   | IP: 142.250.182.206 Country: United States of America Region: California City: Mountain View Latitude: 37.405991 Longitude: -122.078514 View: Google Map  |
| www.slf4j.org                     | good   | IP: 83.166.144.67 Country: Switzerland Region: Geneve City: Carouge Latitude: 46.180962 Longitude: 6.13921 View: Google Map                               |
| firebase-settings.crashlytics.com | good   | IP: 172.217.167.163  Country: United States of America Region: California City: Mountain View Latitude: 37.405991 Longitude: -122.078514 View: Google Map |
| www.googleadservices.com          | good   | IP: 172.217.174.226 Country: United States of America Region: California City: Mountain View Latitude: 37.405991 Longitude: -122.078514 View: Google Map  |
| update.crashlytics.com            | good   | IP: 172.217.167.163 Country: United States of America Region: California City: Mountain View Latitude: 37.405991 Longitude: -122.078514 View: Google Map  |
| goo.gl                            | good   | IP: 216.58.196.78 Country: United States of America Region: California City: Mountain View Latitude: 37.405991 Longitude: -122.078514 View: Google Map    |
| img1.digitallocker.gov.in         | good   | IP: 23.48.225.11 Country: India Region: Maharashtra City: Pune Latitude: 18.519569 Longitude: 73.855347 View: Google Map                                  |

| DOMAIN                         | STATUS | GEOLOCATION   |
|--------------------------------|--------|---|
| xmlpull.org                    | good   | IP: 74.50.62.60 Country: United States of America Region: Texas City: Dallas Latitude: 32.814899 Longitude: -96.879204 View: Google Map                 |
| utils.digitallocker.gov.in     | good   | IP: 164.100.161.225 Country: India Region: Delhi City: Delhi Latitude: 28.66667 Longitude: 77.216667 View: Google Map                                   |
| www.google.com                 | good   | IP: 142.250.183.4 Country: United States of America Region: California City: Mountain View Latitude: 37.405991 Longitude: -122.078514 View: Google Map  |
| api.stripe.com                 | good   | IP: 13.228.224.121 Country: Singapore Region: Singapore City: Singapore Latitude: 1.28967 Longitude: 103.850067 View: Google Map                        |
| digilocker-1032.firebaseio.com | good   | IP: 35.201.97.85  Country: United States of America Region: Missouri City: Kansas City Latitude: 39.099731 Longitude: -94.578568 View: Google Map       |
| source.android.com             | good   | IP: 142.250.183.14 Country: United States of America Region: California City: Mountain View Latitude: 37.405991 Longitude: -122.078514 View: Google Map |

# **URLS**

| URL   | FILE   |
|---|--|
| https://stripe.com/docs/mobile/android/basic                        | com/stripe/android/EphemeralKeyManager.java            |
| https://stripe.com/docs/keys  | com/stripe/android/ApiKeyValidator.java                |
| https://q.stripe.com  | com/stripe/android/networking/AnalyticsRequest.java    |
| https://m.stripe.com/6  | com/stripe/android/networking/FingerprintRequest.java  |
| https://api.stripe.com/edge-internal/<br>https://api.stripe.com/v1/ | com/stripe/android/networking/StripeApiRepository.java |

| URL  | FILE   |
|--|--|
| https://api.stripe.com   | com/stripe/android/networking/ApiRequest.java  |
| https://files.stripe.com/v1/files  | com/stripe/android/networking/FileUploadRequest.java                                 |
| https://hooks.stripe.com/three_d_secure/authenticate https://hooks.stripe.com/redirect/complete/src_ https://hooks.stripe.com/3d_secure/complete/tdsrc_  | com/stripe/android/view/PaymentAuthWebView.java                                      |
| https://twitter.com/stripestatus,  | com/stripe/android/exception/APIConnectionException.java                             |
| https://play.google.com/store/apps/details?id=com.digilocker.android<br>https://img1.digitallocker.gov.in/assets/img/banner/   | com/digilocker/android/MainApp.java  |
| file:///   | com/digilocker/android/ui/webtemplate/ActivityProfileTemplate.j<br>ava               |
| https://img1.digitallocker.gov.in/public/assets/logo/issuers/002292.png<br>https://img1.digitallocker.gov.in/public/assets/logo/issuers/000027.png   | com/digilocker/android/ui/activity/NotificationActivity.java                         |
| https://img1.digitallocker.gov.in/public/assets/logo/issuers/002292.png<br>https://img1.digitallocker.gov.in/public/assets/logo/issuers/000027.png   | com/digilocker/android/ui/activity/FileDisplayActivity.java                          |
| https://play.google.com/store/apps/details?id=   | com/digilocker/android/ui/activity/dashboard/activity/MainDash<br>boardActivity.java |
| file:///android_asset/loader.html  | com/digilocker/android/ui/activity/webview/ActivitySigninHelp.ja<br>va               |
| file:///android_asset/loader.html  | com/digilocker/android/ui/activity/webview/ActivitySignupHelp.j<br>ava               |
| file:///android_asset/loader.html  | com/digilocker/android/ui/activity/webview/ActivityForgetPassw<br>ord.java           |
| file:///android_asset/loader.html  | com/digilocker/android/ui/activity/webview/ActivityFaq.java                          |
| file:///android_asset/loader.html  | com/digilocker/android/ui/activity/webview/ActivityHelp.java                         |
| file:///android_asset/loader.html  | com/digilocker/android/ui/activity/webview/ActivityAboutUs.java                      |
| file:///android_asset/loader.html  | com/digilocker/android/ui/activity/webview/ActivityContactUs.ja<br>va                |
| https://google.com/search?   | defpackage/l52.java  |
| javascript:(<br>file:///android_asset/loader.html<br>file:///android_asset/errors/connection_lost.html   | defpackage/ow.java   |
| https://fake.url   | defpackage/lw.java   |
| https://app-measurement.com/a  | defpackage/bm1.java  |
| http://goo.gl/8Rd3yj   | defpackage/fa1.java  |
| https://update.crashlytics.com/spi/v1/platforms/android/apps https://update.crashlytics.com/spi/v1/platforms/android/apps/%s https://reports.crashlytics.com/spi/v1/platforms/android/apps/%s/reports https://reports.crashlytics.com/sdk-api/v1/platforms/android/apps/%s/minidumps | defpackage/qw2.java  |
| http://localhost   | defpackage/k61.java  |

| URL   | FILE                |
|---|---------------------|
| javascript:( file:///android_asset/errors/connection_lost_after_login.html file:///android_asset/loader.html  | defpackage/ov.java  |
| http://xmlpull.org/v1/doc/features.html#process-namespaces  | defpackage/k83.java |
| https://firebase.google.com/support/guides/disable-analytics  | defpackage/w12.java |
| https://firebase-settings.crashlytics.com/spi/v2/platforms/android/gmp/%s/settings  | defpackage/wq2.java |
| https://www.googleadservices.com/pagead/conversion/app/deeplink?id_type=adid&sdk_version=%s&rdid=<br>%s&bundleid=%s&retry=%s  | defpackage/n42.java |
| http://hostname/?   | defpackage/k40.java |
| https://img1.digitallocker.gov.in/assets/img/banner/  | defpackage/jv.java  |
| javascript:( file:///android_asset/errors/connection_lost.html file:///tryagain file:///android_asset/loader.html   | defpackage/wv.java  |
| https://emv3ds/challenge  | defpackage/y2.java  |
| https://%s/%s/%s  | defpackage/n03.java |
| file:///android_asset/errors/connection_lost_after_login.html   | defpackage/ww.java  |
| http://goo.gl/naFqQk  | defpackage/g91.java |
| http://www.google-analytics.com<br>https://ssl.google-analytics.com   | defpackage/ya1.java |
| http://www.slf4j.org/codes.html#StaticLoggerBinder http://www.slf4j.org/codes.html#substituteLogger http://www.slf4j.org/codes.html#unsuccessfullnit http://www.slf4j.org/codes.html#multiple_bindings http://www.slf4j.org/codes.html#version_mismatch | defpackage/uu4.java |
| https://play.google.com/store/apps/details?id=  | defpackage/xy.java  |
| http://owncloud.org/ns  | defpackage/n73.java |
| http://localhost  | defpackage/p41.java |
| http://schemas.android.com/apk/res/android  | defpackage/yb.java  |
| https://app-measurement.com/a   | defpackage/yx1.java |
| http://xmlpull.org/v1/doc/features.html#process-namespaces  | defpackage/o73.java |
| file:///android_asset/errors/connection_lost_after_login.html   | defpackage/uw.java  |
| http://goo.gl/8Rd3yj  | defpackage/k91.java |
| http://owncloud.org/ns  | defpackage/m73.java |
| file:///android_asset/errors/connection_lost_after_login.html   | defpackage/zw.java  |
| file:///android_asset/loader.html   | defpackage/nw.java  |
| https://firebase.google.com/support/privacy/init-options.   | defpackage/xz2.java |

| URL  | FILE                                |
|--|-------------------------------------|
| file:///android_asset/errors/connection_lost_after_login.html  | defpackage/vw.java                  |
| https://emv3ds/challenge   | defpackage/d2.java                  |
| https://errors.stripe.com/api/426/store/   | defpackage/s.java                   |
| https://pagead2.googlesyndication.com/pagead/gen_204?id=gmob-apps  | defpackage/b40.java                 |
| https://plus.google.com/   | defpackage/eb0.java                 |
| https://play.google.com/store/apps/details?id=   | defpackage/bu.java                  |
| www.googleapis.com/identitytoolkit/v3/relyingparty   | defpackage/m41.java                 |
| www.google.com<br>https://www.google.com<br>https://goo.gl/NAOOOI.<br>https://goo.gl/NAOOOI  | defpackage/d82.java                 |
| https://digilocker.gov.in/public.php?service=files&t=  | defpackage/g83.java                 |
| http://source.android.com/, http://source.android.com/compatibility) http://www.apache.org/licenses/ https://stripe.com/au-becs-dd-service-agreement/legal https://elibom.digitallocker.gov.in/index.php/apps/dashboard/api/1.0/partnerdashboard http://developers.facebook.com/policy/ https://digilocker.gov.in) https://digilocker.gov.in) http://oauth2.authorization.server.org/paht/to/endporint/for/access/token https://oauth2.authorization.server.org/paht/to/endpoint/for/authorization https://jay.google.com/store/apps/details?id=com.owncloud.android http://owncloud.com/mobile/help https://owncloud.com/mobile/new https://  | Android String Resource             |
| https://utils.digitallocker.gov.in/api/v1/web/stage/default/digiDyNotification.json https://digilocker.gov.in/public/reset/username https://digilocker.gov.in/public/reset_password?mobile https://digilocker.gov.in/public/reset_password https://digilocker.gov.in/public/reset_password/changepasswordOTP https://digilocker.gov.in/public/reset_password/reset_pass_aadhaar?mobile https://digilocker.gov.in/public/reset_password/reset_pass_aadhaar?mobile https://digilocker.gov.in/public/reset_password/reset_pass_aadhaar https://digilocker.gov.in/contact_mob.html https://digilocker.gov.in/contact_mob.html https://digilocker.gov.in/fad_mob.html https://digilocker.gov.in/help_html https://digilocker.gov.in/help_signin.php https://digilocker.gov.in/help_signup.php | lib/armeabi-v7a/libnative-lib-DL.so |
| https://utils.digitallocker.gov.in/api/v1/web/stage/default/digiDyNotification.json https://digilocker.gov.in/index.php https://digilocker.gov.in/public/reset/username https://digilocker.gov.in/public/reset_password?mobile https://digilocker.gov.in/public/reset_password https://digilocker.gov.in/public/reset_password/changepasswordOTP https://digilocker.gov.in/public/reset_password/reset_pass_aadhaar?mobile https://digilocker.gov.in/public/reset_password/reset_pass_aadhaar?https://digilocker.gov.in/public/reset_password/reset_pass_aadhaar https://digilocker.gov.in/about_mob.html https://digilocker.gov.in/faq_mob.html https://digilocker.gov.in/help_signin.php https://digilocker.gov.in/help_signup.php   | lib/x86_64/libnative-lib-DL.so      |

| URL  | FILE                              |
|--|-----------------------------------|
| https://digilocker.gov.in/api/v1/web/stage/default/digiDyNotification.json https://digilocker.gov.in/public/reset/username https://digilocker.gov.in/public/reset_password?mobile https://digilocker.gov.in/public/reset_password https://digilocker.gov.in/public/reset_password/changepasswordOTP https://digilocker.gov.in/public/reset_password/reset_pass_aadhaar?mobile https://digilocker.gov.in/public/reset_password/reset_pass_aadhaar?https://digilocker.gov.in/about_mob.html https://digilocker.gov.in/contact_mob.html https://digilocker.gov.in/faq_mob.html https://digilocker.gov.in/help_html https://digilocker.gov.in/help_signin.php https://digilocker.gov.in/help_signup.php  | lib/x86/libnative-lib-DL.so       |
| https://utils.digitallocker.gov.in/api/v1/web/stage/default/digiDyNotification.json https://digilocker.gov.in/jndex.php https://digilocker.gov.in/public/reset/username https://digilocker.gov.in/public/reset_password?mobile https://digilocker.gov.in/public/reset_password/changepasswordOTP https://digilocker.gov.in/public/reset_password/reset_pass_aadhaar?mobile https://digilocker.gov.in/public/reset_password/reset_pass_aadhaar?mobile https://digilocker.gov.in/public/reset_password/reset_pass_aadhaar https://digilocker.gov.in/about_mob.html https://digilocker.gov.in/faq_mob.html https://digilocker.gov.in/faq_mob.html https://digilocker.gov.in/help_html https://digilocker.gov.in/help_signin.php https://digilocker.gov.in/help_signup.php | lib/arm64-v8a/libnative-lib-DL.so |

# FIREBASE DATABASES

| FIREBASE URL                           | DETAILS                                   |
|--|---|
| https://digilocker-1032.firebaseio.com | info<br>App talks to a Firebase Database. |

## **EMAILS**

| EMAIL   | FILE   |
|---|--|
| support@stripe.com                                    | com/stripe/android/networking/StripeRequest.java         |
| support@stripe.com                                    | com/stripe/android/exception/APIConnectionException.java |
| support@digitallocker.gov                             | defpackage/ry.java                                       |
| u0013android@android.com0<br>u0013android@android.com | defpackage/uc0.java                                      |
| apps@owncloud.com                                     | Android String Resource                                  |

# # TRACKERS

| TRACKER          | URL   |
|------------------|---|
| Google Analytics | https://reports.exodus-privacy.eu.org/trackers/48 |

| TRACKER                   | URL   |
|---------------------------|---|
| Google CrashLytics        | https://reports.exodus-privacy.eu.org/trackers/27 |
| Google Firebase Analytics | https://reports.exodus-privacy.eu.org/trackers/49 |

### **₽** HARDCODED SECRETS

# POSSIBLE SECRETS "auth\_fail\_get\_user\_name": "Your server is not returning a correct user id, please contact an administrator" "auth\_password" : "Password" "auth\_username" : "Username" "esign\_not\_a\_aadhaar\_user" : "You are not authrized for eSigning your file. Please Link your aadhaar to digilocker account to avail this facility." "forget\_password": "Forgot Password" "forget\_user\_name": "Forgot Username" "google\_api\_key": "AlzaSyAB\_vvn04v8RgErmcnZ0Ocb4zd09-CrjLY" "google\_crash\_reporting\_api\_key" : "AlzaSyAB\_vvn04v8RgErmcnZ0Ocb4zd09-CrjLY" "oauth2\_client\_secret" : "" "refresh\_list\_key" : "refresh issued doc" "saiftynet\_key" : "AlzaSyDfCV6cgb-w8zAf2u4uRJUoHiTw4u1-vlg" "saml\_subject\_token" : ""%1\$s" has been shared with you" "share\_link\_no\_support\_share\_api" : "Sorry, sharing is not enabled on your server. Please contact your administrator." "subject\_token" : "%1\$s shared "%2\$s" with you" "tooltip\_password": "Between 6-30 characters. Only hash(#), exclamation(!), asterisk(\*), dollar(\$) and at the rate(@) are allowed as special characters." "tooltip\_username" : "Between 3-50 characters. Can contain only lowercase letters, numbers and special characters - dot(.), dash(-), underscore(\_) and at the rate(@). Username c annot start with a special character." "username" : "Username" "auth\_password" : " "auth\_username" : " "username" : " "auth\_password" : "Mật khẩu" "auth\_username" : "Tên người dùng"

### **▶ PLAYSTORE INFORMATION**

Score: 4.061808 Installs: 10,000,000+ Price: 0 Android Version Support: 5.0 and up Category: Productivity Play Store URL: com.digilocker.android

**Developer Details:** National eGovernance Division, Government of India, National+eGovernance+Division,+Government+of+India, Digital India Corporation, Government of India, Electronics Niketan, 6, CGO Complex, Lodhi Road, New Delhi - 110003, https://digilocker.gov.in/, support@digitallocker.gov.in,

Release Date: Feb 8, 2016 Privacy Policy: Privacy link

#### Description:

DigiLocker is a key initiative under Digital India, the Government of India's flagship program aimed at transforming India into a digitally empowered society and knowledge economy. Targeted at the idea of paperless governance, DigiLocker is a platform for issuance and verification of documents & certificates in a digital way, thus eliminating the use of physical documents. The DigiLocker website can be accessed at https://digitallocker.gov.in/. You can now access your documents and certificates from your DigiLocker on your mobile devices.

#### **App Security Score Calculation**

Every app is given an ideal score of 100 to begin with.

For every findings with severity high we reduce 15 from the score.

For every findings with severity warning we reduce 10 from the score.

For every findings with severity good we add 5 to the score.

If the calculated score is greater than 100, then the app security score is considered as 100.

And if the calculated score is less than 0, then the app security score is considered as 10.

#### **Risk Calculation**

| APP SECURITY SCORE | RISK     |
|--------------------|----------|
| 0 - 15             | CRITICAL |
| 16 - 40            | HIGH     |
| 41 - 70            | MEDIUM   |
| 71 - 100           | LOW      |

#### Report Generated by - MobSF v3.2.4 Beta

Mobile Security Framework (MobSF) is an automated, all-in-one mobile application (Android/iOS/Windows) pen-testing, malware analysis and security assessment framework capable of performing static and dynamic analysis.

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