ANDROID STATIC ANALYSIS REPORT

Chiaki (1.3.0)

File Name:	installer320.apk
Package Name:	com.metallic.chiaki
Scan Date:	May 31, 2022, 1:47 p.m.
App Security Score:	54/100 (MEDIUM RISK)
Grade:	B

FINDINGS SEVERITY

HIGH	MEDIUM	INFO	SECURE	HOTSPOT
1	3	1	1	0

FILE INFORMATION

File Name: installer320.apk
Size: 8.06MB
MD5: b62e25d5a74c20cb5e5997bee4a0f673
SHA1: 0ba84e720bbcdfb5768516bef43131383d005171
SHA256: 4264f2e32fb499a34fd08ee30a67fea639a1ea0bb7754fa945a88906250b8c0e

APP INFORMATION

App Name: Chiaki
Package Name: com.metallic.chiaki
Main Activity: com.metallic.chiaki.main.MainActivity
Target SDK: 29
Min SDK: 21
Max SDK:
Android Version Name: 1.3.0
Android Version Code: 7

APP COMPONENTS

Activities: 6
Services: 1
Receivers: 0
Providers: 2
Exported Activities: 0
Exported Services: 0
Exported Receivers: 0
Exported Providers: 0

CERTIFICATE INFORMATION

```
APK is signed
v1 signature: True
v2 signature: False
v3 signature: False
Found 1 unique certificates
Subject: C=UK, ST=ORG, L=ORG, O=fdroid.org, OU=FDroid, CN=FDroid
Signature Algorithm: rsassa_pkcs1v15
Valid From: 2020-08-22 08:26:14+00:00
Valid To: 2048-01-08 08:26:14+00:00
Issuer: C=UK, ST=ORG, L=ORG, O=fdroid.org, OU=FDroid, CN=FDroid
Serial Number: 0x62c60e5c
Hash Algorithm: sha256
md5: 9e63d8fe9205099b094f5d78aa6e05a3
sha1: 7020aec867cda595109f24f4f201f7b87c90e894
sha256: a440f9f5d79036947d35ca3a6dded5bfe6f591d9aabd624aefedae67425a8898
sha512: baa72dc83304e3b31b09a5e72d9ff2937ec2299f063cc1dc7f8fe2773e70555fff1f2bc51eb9be373921a26fc2d8803d0120c34cb382cf51bff346e33e3babdd
```

TITLE	SEVERITY	DESCRIPTION
Signed Application	info	Application is signed with a code signing certificate

TITLE	SEVERITY	DESCRIPTION
Application vulnerable to Janus Vulnerability	high	Application is signed with v1 signature scheme, making it vulnerable to Janus vulnerability on Android 5.0-8.0, if signed only with v1 signature scheme. Applications running on Android 5.0-7.0 signed with v1, and v2/v3 scheme is also vulnerable.

APPLICATION PERMISSIONS

PERMISSION	STATUS	INFO	DESCRIPTION
android.permission.INTERNET	normal	full Internet access	Allows an application to create network sockets.
android.permission.ACCESS_NETWORK_STATE	normal	view network status	Allows an application to view the status of all networks.

APKID ANALYSIS

<table>
<tr><th>FILE</th><th>DETAILS</th></tr>
<tr><td>classes.dex</td><td>
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<tr><th>FINDINGS</th><th>DETAILS</th></tr>
<tr><td>Anti-VM Code</td><td>Build.MANUFACTURER check</td></tr>
<tr><td>Compiler</td><td>r8</td></tr>
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</td></tr>
</table>

NETWORK SECURITY

NO	SCOPE	SEVERITY	DESCRIPTION

MANIFEST ANALYSIS

NO	ISSUE	SEVERITY	DESCRIPTION
1	Application Data can be Backed up [android:allowBackup=true]	warning	This flag allows anyone to backup your application data via adb. It allows users who have enabled USB debugging to copy application data off of the device.

CODE ANALYSIS

NO	ISSUE	SEVERITY	STANDARDS	FILES
1	IP Address disclosure	warning	CWE: CWE-200: Information Exposure OWASP MASVS: MSTG-CODE-2	com/metallic/chiaki/discovery/DiscoveryManager.java com/metallic/chiaki/regist/RegistActivity.java
2	The App logs information. Sensitive information should never be logged.	info	CWE: CWE-532: Insertion of Sensitive Information into Log File OWASP MASVS: MSTG-STORAGE-3	com/metallic/chiaki/discovery/DiscoveryManager.java com/metallic/chiaki/common/SerializedSettingsKt.java com/metallic/chiaki/lib/DiscoveryService.java com/metallic/chiaki/regist/RegistExecuteViewModel.java com/metallic/chiaki/manualconsole/EditManualConsoleViewModel$existingHost$1.java

SHARED LIBRARY BINARY ANALYSIS

NO	SHARED OBJECT	NX	STACK CANARY	RELRO	RPATH	RUNPATH	FORTIFY	SYMBOLS STRIPPED
1	lib/armeabi-v7a/libchiaki-jni.so	True info The shared object has NX bit set. This marks a memory page non-executable making attacker injected shellcode non-executable.	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 info This shared object has full RELRO enabled. RELRO ensures that the GOT cannot be overwritten in vulnerable ELF binaries. In Full RELRO, the entire GOT (.got and .got.plt both) is marked as read-only.	None info The shared object does not have run-time search path or RPATH set.	None info The shared object does not have RUNPATH set.	True info The shared object has the following fortified functions: ['__FD_ISSET_chk', '__FD_SET_chk']	True info Symbols are stripped.

NO	SHARED OBJECT	NX	STACK CANARY	RELRO	RPATH	RUNPATH	FORTIFY	SYMBOLS STRIPPED
2	lib/x86/libchiaki-jni.so	True info The shared object has NX bit set. This marks a memory page non-executable making attacker injected shellcode non-executable.	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 info This shared object has full RELRO enabled. RELRO ensures that the GOT cannot be overwritten in vulnerable ELF binaries. In Full RELRO, the entire GOT (.got and .got.plt both) is marked as read-only.	None info The shared object does not have run-time search path or RPATH set.	None info The shared object does not have RUNPATH set.	True info The shared object has the following fortified functions: ['__FD_ISSET_chk', '__FD_SET_chk']	True info Symbols are stripped.

NO	SHARED OBJECT	NX	STACK CANARY	RELRO	RPATH	RUNPATH	FORTIFY	SYMBOLS STRIPPED
3	lib/arm64-v8a/libchiaki-jni.so	True info The shared object has NX bit set. This marks a memory page non-executable making attacker injected shellcode non-executable.	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 info This shared object has full RELRO enabled. RELRO ensures that the GOT cannot be overwritten in vulnerable ELF binaries. In Full RELRO, the entire GOT (.got and .got.plt both) is marked as read-only.	None info The shared object does not have run-time search path or RPATH set.	None info The shared object does not have RUNPATH set.	True info The shared object has the following fortified functions: ['__FD_ISSET_chk', '__FD_SET_chk']	True info Symbols are stripped.

NO	SHARED OBJECT	NX	STACK CANARY	RELRO	RPATH	RUNPATH	FORTIFY	SYMBOLS STRIPPED
4	lib/x86_64/libchiaki-jni.so	True info The shared object has NX bit set. This marks a memory page non-executable making attacker injected shellcode non-executable.	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 info This shared object has full RELRO enabled. RELRO ensures that the GOT cannot be overwritten in vulnerable ELF binaries. In Full RELRO, the entire GOT (.got and .got.plt both) is marked as read-only.	None info The shared object does not have run-time search path or RPATH set.	None info The shared object does not have RUNPATH set.	True info The shared object has the following fortified functions: ['__FD_ISSET_chk', '__FD_SET_chk']	True info Symbols are stripped.

NIAP ANALYSIS v1.3

NO	IDENTIFIER	REQUIREMENT	FEATURE	DESCRIPTION
1	FCS_RBG_EXT.1.1	Security Functional Requirements	Random Bit Generation Services	The application use no DRBG functionality for its cryptographic operations.
2	FCS_STO_EXT.1.1	Security Functional Requirements	Storage of Credentials	The application does not store any credentials to non-volatile memory.

NO	IDENTIFIER	REQUIREMENT	FEATURE	DESCRIPTION
3	FCS_CKM_EXT.1.1	Security Functional Requirements	Cryptographic Key Generation Services	The application generate no asymmetric cryptographic keys.
4	FDP_DEC_EXT.1.1	Security Functional Requirements	Access to Platform Resources	The application has access to ['network connectivity'].
5	FDP_DEC_EXT.1.2	Security Functional Requirements	Access to Platform Resources	The application has access to no sensitive information repositories.
6	FDP_NET_EXT.1.1	Security Functional Requirements	Network Communications	The application has user/application initiated network communications.
7	FDP_DAR_EXT.1.1	Security Functional Requirements	Encryption Of Sensitive Application Data	The application does not encrypt files in non-volatile memory.
8	FMT_MEC_EXT.1.1	Security Functional Requirements	Supported Configuration 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 Requirements	Protection of Data in Transit	The application does encrypt some transmitted data with HTTPS/TLS/SSH between itself and another trusted IT product.

DOMAIN MALWARE CHECK

DOMAIN	STATUS	GEOLOCATION

DOMAIN	STATUS	GEOLOCATION
github.com	ok	**IP:** 140.82.121.3 **Country:** United States of America **Region:** California **City:** San Francisco **Latitude:** 37.775700 **Longitude:** -122.395203 **View:** Google Map

🔑 HARDCODED SECRETS

POSSIBLE SECRETS
"preferences_bitrate_key" : "stream_bitrate"
"preferences_discovery_enabled_key" : "discovery_enabled"
"preferences_export_settings_key" : "export_settings"
"preferences_fps_key" : "stream_fps"
"preferences_import_settings_key" : "import_settings"
"preferences_log_verbose_key" : "log_verbose"
"preferences_on_screen_controls_enabled_key" : "on_screen_controls_enabled"
"preferences_resolution_key" : "stream_resolution"

POSSIBLE SECRETS
"preferences_swap_cross_moon_key" : "swap_cross_moon"
"preferences_touchpad_only_key" : "touchpad_only_enabled"

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