ANDROID STATIC ANALYSIS REPORT

app_icon

MapssGps (1.0)

File Name:	app-debug.apk
Package Name:	com.example.mapssgps
Scan Date:	Nov. 14, 2024, 1:32 a.m.
App Security Score:	38/100 (HIGH RISK)
Grade:	C

FINDINGS SEVERITY

HIGH	MEDIUM	INFO	SECURE	HOTSPOT
3	3	0	1	1

FILE INFORMATION

File Name: app-debug.apk
Size: 6.84MB
MD5: 15875cad85f9fb3e1a6efe6edb68ce04
SHA1: b5eddea94453ce1a58347e899791c370898d3ede
SHA256: be7c559131cdfb665ae67ab79bbae512f639e32c55fc9adaaad80782185eae7b

APP INFORMATION

App Name: MapssGps
Package Name: com.example.mapssgps
Main Activity: com.example.mapssgps.MainActivity
Target SDK: 34
Min SDK: 21
Max SDK:
Android Version Name: 1.0
Android Version Code: 1

APP COMPONENTS

Activities: 3
Services: 2
Receivers: 2
Providers: 1
Exported Activities: 0
Exported Services: 0
Exported Receivers: 1
Exported Providers: 0

CERTIFICATE INFORMATION

Binary is signed
v1 signature: True
v2 signature: True
v3 signature: False
v4 signature: False
X.509 Subject: CN=Android Debug, O=Android, C=US
Signature Algorithm: rsassa_pkcs1v15
Valid From: 2024-09-10 23:15:12+00:00
Valid To: 2054-09-03 23:15:12+00:00
Issuer: CN=Android Debug, O=Android, C=US
Serial Number: 0x1
Hash Algorithm: sha256
md5: 3fd682ecce659b31e95f690ed5ecbca9
sha1: e4077ff01e2c158e689f0d5da8d37f800b9f3974
sha256: aa86d33324f384458783e46af4b99e655dc91428dd5fd921846b7803f7d88884
sha512: fb986bd3b9954b73ffdcda90405a59d53b858d34361d1b57a6093f71aabdae9b52fd337cbbfc08bd500984c3d9d8ec3da63da3fce92e6a9ef26cadcd33bbade1
PublicKey Algorithm: rsa
Bit Size: 2048
Fingerprint: eec98dc9777f5d5a9c8a4571edc7b6cce7621fce80a34e3d54f7156e14e78128
Found 1 unique certificates

APPLICATION PERMISSIONS

PERMISSION	STATUS	INFO	DESCRIPTION
android.permission.ACCESS_COARSE_LOCATION	dangerous	coarse (network-based) location	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.
android.permission.ACCESS_FINE_LOCATION	dangerous	fine (GPS) location	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.
android.permission.ACCESS_WIFI_STATE	normal	view Wi-Fi status	Allows an application to view the information about the status of Wi-Fi.
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.
com.example.mapssgps.DYNAMIC_RECEIVER_NOT_EXPORTED_PERMISSION	unknown	Unknown permission	Unknown permission from android reference

APKID ANALYSIS

<table>
<tr><th>FILE</th><th>DETAILS</th></tr>
<tr><td>classes3.dex</td><td>
<table>
<tr><th>FINDINGS</th><th>DETAILS</th></tr>
<tr><td>Compiler</td><td>r8 without marker (suspicious)</td></tr>
</table>
</td></tr>
<tr><td>classes2.dex</td><td>
<table>
<tr><th>FINDINGS</th><th>DETAILS</th></tr>
<tr><td>Compiler</td><td>dx</td></tr>
</table>
</td></tr>
<tr><td>classes.dex</td><td>
<table>
<tr><th>FINDINGS</th><th>DETAILS</th></tr>
<tr><td>Anti-VM Code</td><td>Build.FINGERPRINT check
Build.MODEL check
Build.MANUFACTURER check
Build.PRODUCT check
Build.HARDWARE check</td></tr>
<tr><td>Compiler</td><td>r8 without marker (suspicious)</td></tr>
</table>
</td></tr>
<tr><td>classes4.dex</td><td>
<table>
<tr><th>FINDINGS</th><th>DETAILS</th></tr>
<tr><td>Compiler</td><td>r8 without marker (suspicious)</td></tr>
</table>
</td></tr>
</table>

NETWORK SECURITY

NO	SCOPE	SEVERITY	DESCRIPTION

CERTIFICATE ANALYSIS

HIGH: 1 | WARNING: 1 | INFO: 1

TITLE	SEVERITY	DESCRIPTION
Signed Application	info	Application is signed with a code signing certificate
Application vulnerable to Janus Vulnerability	warning	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 signed with debug certificate	high	Application signed with a debug certificate. Production application must not be shipped with a debug certificate.

MANIFEST ANALYSIS

HIGH: 2 | WARNING: 2 | INFO: 0 | SUPPRESSED: 0

NO	ISSUE	SEVERITY	DESCRIPTION
1	App can be installed on a vulnerable upatched Android version Android 5.0-5.0.2, [minSdk=21]	high	This application can be installed on an older version of android that has multiple unfixed vulnerabilities. These devices won't receive reasonable security updates from Google. Support an Android version => 10, API 29 to receive reasonable security updates.

NO	ISSUE	SEVERITY	DESCRIPTION
2	Debug Enabled For App [android:debuggable=true]	high	Debugging was enabled on the app which makes it easier for reverse engineers to hook a debugger to it. This allows dumping a stack trace and accessing debugging helper classes.
3	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.
4	Broadcast Receiver (androidx.profileinstaller.ProfileInstallReceiver) is Protected by a permission, but the protection level of the permission should be checked. Permission: android.permission.DUMP [android:exported=true]	warning	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.

CODE ANALYSIS

NO	ISSUE	SEVERITY	STANDARDS	FILES

NIAP ANALYSIS v1.3

NO	IDENTIFIER	REQUIREMENT	FEATURE	DESCRIPTION

ABUSED PERMISSIONS

TYPE	MATCHES	PERMISSIONS
Malware Permissions	5/25	android.permission.ACCESS_COARSE_LOCATION, android.permission.ACCESS_FINE_LOCATION, android.permission.ACCESS_WIFI_STATE, android.permission.INTERNET, android.permission.ACCESS_NETWORK_STATE
Other Common Permissions	0/44	

Malware Permissions:
Top permissions that are widely abused by known malware.
Other Common Permissions:
Permissions that are commonly abused by known malware.

SCAN LOGS

Timestamp	Event	Error
2024-11-14 01:32:04	Generating Hashes	OK
2024-11-14 01:32:04	Extracting APK	OK
2024-11-14 01:32:04	Unzipping	OK
2024-11-14 01:32:04	Getting Hardcoded Certificates/Keystores	OK

2024-11-14 01:32:04	Parsing APK with androguard	OK
2024-11-14 01:32:08	Parsing AndroidManifest.xml	OK
2024-11-14 01:32:09	Extracting Manifest Data	OK
2024-11-14 01:32:09	Performing Static Analysis on: MapssGps (com.example.mapssgps)	OK
2024-11-14 01:32:09	Fetching Details from Play Store: com.example.mapssgps	OK
2024-11-14 01:32:09	Manifest Analysis Started	OK
2024-11-14 01:32:09	Checking for Malware Permissions	OK
2024-11-14 01:32:09	Fetching icon path	OK
2024-11-14 01:32:09	Library Binary Analysis Started	OK
2024-11-14 01:32:09	Reading Code Signing Certificate	OK
2024-11-14 01:32:10	Running APKiD 2.1.5	OK

2024-11-14 01:32:13	Detecting Trackers	OK
2024-11-14 01:32:17	Decompiling APK to Java with JADX	OK
2024-11-14 01:32:58	Converting DEX to Smali	OK
2024-11-14 01:32:58	Code Analysis Started on - java_source	OK
2024-11-14 01:33:08	Android SAST Completed	OK
2024-11-14 01:33:08	Android API Analysis Started	OK
2024-11-14 01:33:13	Android API Analysis Completed	OK
2024-11-14 01:33:14	Android Permission Mapping Started	OK
2024-11-14 01:33:25	Android Permission Mapping Completed	OK
2024-11-14 01:33:25	Email and URL Extraction Completed	OK
2024-11-14 01:33:25	Android Behaviour Analysis Started	OK

2024-11-14 01:33:31	Android Behaviour Analysis Completed	OK
2024-11-14 01:33:31	Extracting String data from APK	OK
2024-11-14 01:33:31	Extracting String data from Code	OK
2024-11-14 01:33:31	Extracting String values and entropies from Code	OK
2024-11-14 01:33:33	Performing Malware check on extracted domains	OK
2024-11-14 01:33:33	Saving to Database	OK

Report Generated by - MobSF v4.1.9

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.