

ANDROID STATIC ANALYSIS REPORT



• DAPNET (1.1.1)

| File Name: | installer366.apk |
|---------------------|--------------------------|
| Package Name: | de.hampager.dapnetmobile |
| Scan Date: | May 30, 2022, 3:42 p.m. |
| App Security Score: | 65/100 (LOW RISK) |
| Grade: | A |

FINDINGS SEVERITY

| 派 HIGH | ▲ MEDIUM | i INFO | ✓ SECURE | ♥ HOTSPOT |
|---------------|----------|--------|-----------------|-----------|
| 0 | 7 | 1 | 2 | 1 |

FILE INFORMATION

File Name: installer366.apk

Size: 3.38MB

MD5: 8f3efddde2b3846473696b293faf97c0

SHA1: fff9940d9253542a3f745c611a4907ea5c28652a

SHA256: 314535dc65bac77b00334c20f82528a0f8f5097085f3c19ef31a6426de1d6dfa

i APP INFORMATION

App Name: DAPNET

Package Name: de.hampager.dapnetmobile

Main Activity: de.hampager.dapnetmobile.activites.MainActivity

Target SDK: 27 Min SDK: 15 Max SDK:

Android Version Name: 1.1.1
Android Version Code: 23

B APP COMPONENTS

Activities: 3 Services: 0 Receivers: 0 Providers: 0

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

***** CERTIFICATE INFORMATION

APK is signed v1 signature: True v2 signature: True v3 signature: False

Found 1 unique certificates

Subject: C=DE, ST=NRW, L=Aachen, O=RWTH Aachen, OU=AFU

Signature Algorithm: rsassa_pkcs1v15 Valid From: 2017-05-10 10:03:27+00:00 Valid To: 2042-05-04 10:03:27+00:00

Issuer: C=DE, ST=NRW, L=Aachen, O=RWTH Aachen, OU=AFU

Serial Number: 0xece448a Hash Algorithm: sha256

md5: 79e34fa1c05d2ba356d93a37bc1f02f1

sha1: 7f1945039bcef4c80ea7b3eec19eb0739a7a230e

sha256: ba73ce2550851b7194019b2e23b2f9e86e6df5591fe0b9142094f74d63e1d1e1

sha512: 3e50a04e52d3027e55febc4119b7fdcd8d8fb8cb3bb8c815ffe77d123c62d3bb57639ea9da30d6ffc760b105e45839886d28e1526f83a1aa2fcf0e707c4211a5

PublicKey Algorithm: rsa

Bit Size: 2048

Fingerprint: 19c6c2638c27ffd0e38b66f7947458699da349805f929775ba238a97d3039a97

| 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 PERMISSIONS

| PERMISSION | STATUS | INFO | DESCRIPTION |
|---|-----------|--|--|
| android.permission.INTERNET | normal | full Internet access | Allows an application to create network sockets. |
| android.permission.WRITE_EXTERNAL_STORAGE | dangerous | read/modify/delete external storage contents | Allows an application to write to external storage. |
| android.permission.READ_EXTERNAL_STORAGE | dangerous | read external storage contents | Allows an application to read from external storage. |

M APKID ANALYSIS

| FILE |
|------|
|------|

| FILE | DETAILS | | | |
|-------------|--------------|--|--|--|
| | FINDINGS | DETAILS | | |
| classes.dex | Anti-VM Code | Build.MODEL check Build.MANUFACTURER check Build.PRODUCT check possible VM check | | |
| Classes.dex | Compiler | r8 without marker (suspicious) | | |
| | | | | |

△ NETWORK SECURITY

| NO | SCOPE | SEVERITY | DESCRIPTION |
|----|-------|----------|-------------|
| | | | |

Q 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. |

| NO | ISSUE | SEVERITY | DESCRIPTION |
|----|--|----------|---|
| 2 | Activity (de.hampager.dapnetmobile.activites.LoginActivity) is not Protected. An intent-filter exists. | warning | 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. |

</> CODE ANALYSIS

| NO | ISSUE | SEVERITY | STANDARDS | FILES |
|----|--|----------|-----------------------------|--|
| 1 | This App uses SSL certificate pinning to detect or prevent MITM attacks in secure communication channel. | secure | OWASP MASVS: MSTG-NETWORK-4 | de/hampager/dap4j/ServiceGenerator .java |
| | | | | org/osmdroid/tileprovider/MapTileCa che.java org/osmdroid/bonuspack/kml/KmlDo cument.java org/osmdroid/tileprovider/modules/Z ipFileArchive.java org/osmdroid/bonuspack/routing/Ma pQuestRoadManager.java de/hampager/dapnetmobile/fragmen ts/MapFragment.java org/osmdroid/tileprovider/util/Cloud madeUtil.java org/osmdroid/bonuspack/location/N ominatimPOIProvider.java org/osmdroid/tileprovider/BitmapPo ol.java org/osmdroid/tileprovider/modules/ MBTilesFileArchive.java org/osmdroid/tileprovider/tilesource/ |

| org/osmdroid/bonuspack/location/FlickPOIProvider_java de/hampager/dapnetmobile/adapter /NodeAdapter_java org/osmdroid/tileprovider/modules/ MapTileFilesystemProvider_java org/osmdroid/views/overlay/mylocati orn/GpsMyLocationProvider_java de/hampager/dapnetmobile/adapter /MapTileFilesystemProvider_java org/osmdroid/views/overlay/Plocation orn/GpsMyLocationProvider_java de/hampager/dapnetmobile/adapter /RubricAdapter_java org/osmdroid/views/overlay/NonAcc eleratedOverlay, Java org/osmdroid/views/overlay/NonAcc eleratedOverlay, Java org/osmdroid/tileprovider/modules/T ileDownloader_java org/osmdroid/bonuspack/rocation/Pi casaPOIProvider_java org/osmdroid/bonuspack/routing/Go ogleRoadManager_java org/osmdroid/vieprovider/MapTilePr oviderBase_java org/osmdroid/vieprovider/MapTilePr oviderBase_java org/osmdroid/vieprovider/AuMapTile eCache_java org/osmdroid/vieprovider/RUMapTile eCache_java org/osmdroid/views/overlay/gridilines LatLonGridilineOverlay/gava org/osmdroid/views/overlay/gridilines /LatLonGridilineOverlay-gava org/osmdroid/views/overlay/gridilines /LatLonGridilineOverlay-gava org/osmdroid/views/overlay/gridilines /LatLonGridilineOverlay-gava org/osmdroid/views/overlay/gridilines /LatLonGridilineOverlay-gava org/osmdroid/views/overlay/gridilines /LatLonGridilineOverlay-gava org/osmdroid/views/overlay/finfowinc ow/Basicinfo/Window,java | NO | ISSUE | SEVERITY | STANDARDS | bing/BingMapTileSource.java 6lg/6Smdroid/tileprovider/modules/S gliteArchiveTileWriter.java |
|--|----|-------|----------|-----------|---|
| ationProvider.java | | | | | de/hampager/dapnetmobile/adapters /NodeAdapter.java org/osmdroid/tileprovider/modules/ MapTileFilesystemProvider.java org/osmdroid/views/overlay/mylocati on/GpsMyLocationProvider.java de/hampager/dapnetmobile/adapters /RubricAdapter.java org/osmdroid/views/overlay/NonAcc eleratedOverlay.java org/osmdroid/tileprovider/modules/T ileDownloader.java org/osmdroid/bonuspack/location/Pi casaPOIProvider.java org/osmdroid/tileprovider/util/Count ers.java org/osmdroid/bonuspack/routing/Go ogleRoadManager.java org/osmdroid/tileprovider/MapTilePr oviderBase.java org/osmdroid/tileprovider/LRUMapTil eCache.java de/hampager/dapnetmobile/fragmen ts/WelcomeFragment.java org/osmdroid/views/overlay/gridlines /LatLonGridlineOverlay.java org/osmdroid/views/overlay/Default OverlayManager.java org/osmdroid/views/overlay/Infowind ow/BasicInfoWindow.java org/osmdroid/config/DefaultConfigur |

| NO | ISSUE | SEVERITY | STANDARDS | de/hampager/dapnetmobile/adapters Auto ContentAdapter.java org/osmdroid/bonuspack/routing/Ma |
|----|---|----------|--|---|
| 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 | |
| | | | | org/osmdroid/tileprovider/modules/ MapTileModuleProviderBase.java org/osmdroid/tileprovider/modules/ MapTileDownloader.java de/hampager/dapnetmobile/activites/ PostCallActivity.java |
| | | | | org/osmdroid/bonuspack/utils/HttpC onnection.java de/hampager/dapnetmobile/adapters /CallAdapter.java org/osmdroid/bonuspack/routing/OS RMRoadManager.java |

| ISSUE | SEVERITY | STANDARDS | org/osmdroid/events/DelayedMapLis Felher Sava de/hampager/dapnetmobile/activites/ |
|-------|----------|-----------|--|
| ISSUE | SEVERITY | STANDARDS | |
| | | | estUtil.java org/osmdroid/views/overlay/TilesOve rlay.java org/osmdroid/tileprovider/modules/T |
| | | | ileWriter.java de/hampager/dapnetmobile/fragmen ts/CallFragment.java org/osmdroid/views/MapView.java de/hampager/dapnetmobile/adapters |

| NO | ISSUE | SEVERITY | STANDARDS | FILES |
|----|--|----------|---|---|
| 3 | App can read/write to External Storage. Any App can read data written to External Storage. | warning | CWE: CWE-276: Incorrect Default Permissions OWASP Top 10: M2: Insecure Data Storage OWASP MASVS: MSTG-STORAGE-2 | org/osmdroid/bonuspack/kml/KmlDo cument.java org/osmdroid/tileprovider/util/Storag eUtils.java |
| 4 | Files may contain hardcoded sensitive information like usernames, passwords, keys etc. | warning | CWE: CWE-312: Cleartext Storage of Sensitive Information OWASP Top 10: M9: Reverse Engineering OWASP MASVS: MSTG-STORAGE-14 | org/osmdroid/tileprovider/util/Cloud madeUtil.java org/osmdroid/tileprovider/tilesource/ bing/BingMapTileSource.java org/osmdroid/bonuspack/location/Ge ocoderNominatim.java org/osmdroid/tileprovider/modules/S qlTileWriter.java org/osmdroid/tileprovider/modules/ DatabaseFileArchive.java |
| 5 | 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. | warning | CWE: CWE-89: Improper Neutralization of Special Elements used in an SQL Command ('SQL Injection') OWASP Top 10: M7: Client Code Quality | org/osmdroid/tileprovider/modules/S qliteArchiveTileWriter.java org/osmdroid/tileprovider/modules/S qlTileWriter.java org/osmdroid/tileprovider/modules/ DatabaseFileArchive.java |
| 6 | The App uses an insecure Random Number Generator. | warning | CWE: CWE-330: Use of Insufficiently Random Values OWASP Top 10: M5: Insufficient Cryptography OWASP MASVS: MSTG-CRYPTO-6 | org/osmdroid/tileprovider/tilesource/ BitmapTileSourceBase.java |

■ 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. |
| 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 implement functionality to encrypt sensitive data 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. |

| NO | IDENTIFIER | REQUIREMENT | FEATURE | DESCRIPTION |
|----|-------------------|--|-------------------------------------|--|
| 10 | FCS_HTTPS_EXT.1.2 | Selection-Based Security Functional Requirements | HTTPS Protocol | The application implement HTTPS using TLS. |
| 11 | FCS_HTTPS_EXT.1.3 | Selection-Based Security Functional 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. |
| 12 | FIA_X509_EXT.2.1 | Selection-Based Security Functional Requirements | X.509 Certificate Authentication | The application use X.509v3 certificates as defined by RFC 5280 to support authentication for HTTPS , TLS. |

Q DOMAIN MALWARE CHECK

| DOMAIN | STATUS | GEOLOCATION |
|----------------------|--------|---|
| tiles.openseamap.org | ok | IP: 195.37.132.70 Country: Germany Region: Rheinland-Pfalz City: Franken Latitude: 50.501240 Longitude: 7.234600 View: Google Map |

| DOMAIN | STATUS | GEOLOCATION |
|-------------------------|--------|--|
| wms.chartbundle.com | ok | IP: 138.68.60.210 Country: United States of America Region: California City: Santa Clara Latitude: 37.354111 Longitude: -121.955238 View: Google Map |
| b.tile.cloudmade.com | ok | No Geolocation information available. |
| www.opengis.net | ok | IP: 66.244.86.70 Country: United States of America Region: Indiana City: Jasper Latitude: 38.391441 Longitude: -86.931107 View: Google Map |
| open.mapquestapi.com | ok | IP: 34.237.118.117 Country: United States of America Region: Virginia City: Ashburn Latitude: 39.043720 Longitude: -77.487488 View: Google Map |
| router.project-osrm.org | ok | IP: 88.99.61.41 Country: Germany Region: Sachsen City: Falkenstein Latitude: 50.477879 Longitude: 12.371290 View: Google Map |

| DOMAIN | STATUS | GEOLOCATION |
|--------------------------|--------|---|
| 3.domain | ok | No Geolocation information available. |
| c.tile.thunderforest.com | ok | IP: 88.99.99.5 Country: Germany Region: Sachsen City: Falkenstein Latitude: 50.477879 Longitude: 12.371290 View: Google Map |
| dev.virtualearth.net | ok | IP: 52.156.193.145 Country: Ireland Region: Dublin City: Dublin Latitude: 53.343990 Longitude: -6.267190 View: Google Map |
| b.tile.openstreetmap.org | ok | IP: 151.101.38.137 Country: United States of America Region: California City: San Francisco Latitude: 37.775700 Longitude: -122.395203 View: Google Map |
| db0sda.ampr.org | ok | IP: 44.149.166.2 Country: United States of America Region: California City: San Diego Latitude: 32.800457 Longitude: -117.171066 View: Google Map |

| DOMAIN | STATUS | GEOLOCATION |
|--------------------------|--------|--|
| schemas.google.com | ok | No Geolocation information available. |
| 1.domain | ok | No Geolocation information available. |
| b.tile.thunderforest.com | ok | IP: 88.99.98.237 Country: Germany Region: Bayern City: Gunzenhausen Latitude: 48.323330 Longitude: 11.601220 View: Google Map |
| 4.domain | ok | No Geolocation information available. |
| c.tiles.wmflabs.org | ok | IP: 185.15.56.55 Country: United States of America Region: California City: San Francisco Latitude: 37.788464 Longitude: -122.394608 View: Google Map |
| opentopomap.org | ok | IP: 131.188.76.144 Country: Germany Region: Bayern City: Erlangen Latitude: 49.595612 Longitude: 10.994970 View: Google Map |

| DOMAIN | STATUS | GEOLOCATION |
|-----------------------------|--------|---|
| nominatim.openstreetmap.org | ok | IP: 130.117.76.9 Country: United States of America Region: Georgia City: Atlanta Latitude: 33.749001 Longitude: -84.387978 View: Google Map |
| www.google.com | ok | IP: 142.250.179.164 Country: United States of America Region: California City: Mountain View Latitude: 37.405991 Longitude: -122.078514 View: Google Map |
| maps.googleapis.com | ok | IP: 172.217.168.234 Country: United States of America Region: California City: Mountain View Latitude: 37.405991 Longitude: -122.078514 View: Google Map |
| basemap.nationalmap.gov | ok | IP: 52.222.139.7 Country: Netherlands Region: Noord-Holland City: Amsterdam Latitude: 52.374031 Longitude: 4.889690 View: Google Map |

| DOMAIN | STATUS | GEOLOCATION |
|--------------------------|--------|---|
| github.com | ok | IP: 140.82.121.4 Country: United States of America Region: California City: San Francisco Latitude: 37.775700 Longitude: -122.395203 View: Google Map |
| a.tile.openstreetmap.org | ok | IP: 151.101.38.137 Country: United States of America Region: California City: San Francisco Latitude: 37.775700 Longitude: -122.395203 View: Google Map |
| a.tiles.wmflabs.org | ok | IP: 185.15.56.55 Country: United States of America Region: California City: San Francisco Latitude: 37.788464 Longitude: -122.394608 View: Google Map |
| a.tile.cloudmade.com | ok | No Geolocation information available. |
| www.flickr.com | ok | IP: 108.156.66.73 Country: United States of America Region: Washington City: Redmond Latitude: 47.682899 Longitude: -122.120903 View: Google Map |

| DOMAIN | STATUS | GEOLOCATION |
|------------------------|--------|---|
| openptmap.org | ok | IP: 88.99.141.112 Country: Germany Region: Sachsen City: Falkenstein Latitude: 50.477879 Longitude: 12.371290 View: Google Map |
| www.afu.rwth-aachen.de | ok | IP: 137.226.79.98 Country: Germany Region: Nordrhein-Westfalen City: Aachen Latitude: 50.776642 Longitude: 6.083420 View: Google Map |
| api.geonames.org | ok | IP: 178.63.52.141 Country: Germany Region: Bayern City: Nuremberg Latitude: 49.447781 Longitude: 11.068330 View: Google Map |
| auth.cloudmade.com | ok | IP: 23.21.136.107 Country: United States of America Region: Virginia City: Ashburn Latitude: 39.043720 Longitude: -77.487488 View: Google Map |

| DOMAIN | STATUS | GEOLOCATION |
|----------------------|--------|--|
| picasaweb.google.com | ok | IP: 172.217.168.206 Country: United States of America Region: California City: Mountain View Latitude: 37.405991 Longitude: -122.078514 View: Google Map |
| graphhopper.com | ok | IP: 5.9.203.233 Country: Germany Region: Bayern City: Nuremberg Latitude: 49.447781 Longitude: 11.068330 View: Google Map |
| b.tiles.wmflabs.org | ok | IP: 185.15.56.55 Country: United States of America Region: California City: San Francisco Latitude: 37.788464 Longitude: -122.394608 View: Google Map |
| 2.domain | ok | No Geolocation information available. |
| c.tile.cloudmade.com | ok | No Geolocation information available. |

| DOMAIN | STATUS | GEOLOCATION |
|--------------------------|--------|--|
| hampager.de | ok | IP: 137.226.79.98 Country: Germany Region: Nordrhein-Westfalen City: Aachen Latitude: 50.776642 Longitude: 6.083420 View: Google Map |
| overlay.openstreetmap.nl | ok | IP: 93.186.176.173 Country: Netherlands Region: Overijssel City: Enschede Latitude: 52.218330 Longitude: 6.895830 View: Google Map |
| www.hampager.de | ok | IP: 137.226.79.98 Country: Germany Region: Nordrhein-Westfalen City: Aachen Latitude: 50.776642 Longitude: 6.083420 View: Google Map |
| a.tile.thunderforest.com | ok | IP: 88.99.70.11 Country: Germany Region: Hessen City: Frankfurt am Main Latitude: 50.115520 Longitude: 8.684170 View: Google Map |

| DOMAIN | STATUS | GEOLOCATION |
|----------------------|--------|---|
| api.flickr.com | ok | IP: 108.156.66.73 Country: United States of America Region: Washington City: Redmond Latitude: 47.682899 Longitude: -122.120903 View: Google Map |
| xml.org | ok | IP: 104.239.240.11 Country: United States of America Region: Texas City: Windcrest Latitude: 29.499678 Longitude: -98.399246 View: Google Map |
| api.openstreetmap.fr | ok | IP: 164.132.171.132 Country: France Region: Hauts-de-France City: Roubaix Latitude: 50.694210 Longitude: 3.174560 View: Google Map |
| api.tiles.mapbox.com | ok | IP: 18.65.34.184 Country: United States of America Region: Washington City: Seattle Latitude: 47.627499 Longitude: -122.346199 View: Google Map |

| DOMAIN | STATUS | GEOLOCATION |
|--------------------------|--------|---|
| overpass-api.de | ok | IP: 178.63.48.217 Country: Germany Region: Bayern City: Nuremberg Latitude: 49.447781 Longitude: 11.068330 View: Google Map |
| c.tile.openstreetmap.org | ok | IP: 151.101.38.137 Country: United States of America Region: California City: San Francisco Latitude: 37.775700 Longitude: -122.395203 View: Google Map |

Report Generated by - MobSF v3.5.2 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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