

#### ANDROID STATIC ANALYSIS REPORT



**MyChart (11.1.4)** 

| File Name:          | com.smilegeneration.mychart_3189.apk |
|---------------------|--------------------------------------|
| Package Name:       | com.smilegeneration.mychart          |
| Scan Date:          | Sept. 1, 2025, 9:18 a.m.             |
| App Security Score: | 44/100 (MEDIUM RISK)                 |
| Grade:              |                                      |
| Trackers Detection: | 1/432                                |
|                     |                                      |

#### FINDINGS SEVERITY

| <b>≟</b> HIGH | ▲ MEDIUM | i INFO | ✓ SECURE | <b>◎</b> HOTSPOT |
|---------------|----------|--------|----------|------------------|
| 4             | 17       | 3      | 1        | 1                |

#### FILE INFORMATION

**File Name:** com.smilegeneration.mychart\_3189.apk

**Size:** 40.7MB

MD5: 53b977350a95357867245c08aa0d0626

**SHA1**: 09c1301eb8acb9afe5f4f0d4fe5aac19d3d4b644

SHA256: e64d666979f9a0d59d472c13e48d4be85b66add4115cf1747b223820e82fd086

#### **i** APP INFORMATION

App Name: MyChart

Package Name: com.smilegeneration.mychart

Main Activity: epic.mychart.android.library.prelogin.SplashActivity

Target SDK: 34 Min SDK: 28 Max SDK:

**Android Version Name:** 11.1.4

**Android Version Code:** 3189

#### **APP COMPONENTS**

Activities: 93 Services: 15 Receivers: 7 Providers: 3

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

#### **\*** CERTIFICATE INFORMATION

Binary is signed v1 signature: False v2 signature: False v3 signature: True v4 signature: False

X.509 Subject: O=Pacific Dental Services Signature Algorithm: rsassa\_pkcs1v15 Valid From: 2020-01-14 16:16:08+00:00 Valid To: 2050-01-06 16:16:08+00:00 Issuer: O=Pacific Dental Services Serial Number: 0x1c70cedd

Hash Algorithm: sha256

md5: 1bcdd36e121b844a1fd49300c9c61786

sha1: d9d9d637c98fea457b18c022515ccd3a97571adc

sha256: 9cae91bd9a1b6570341df653fed114a0a5663622e4019e52f3e8b7a0d99528e2

sha512: 7ee59a220e4a164f58662f212e83c7a377a6e4d25f6d7a4067392397da636bde406d321f518cf84111ee77c462afe80d253357128054efce75b9354e1e25f568

PublicKey Algorithm: rsa

Bit Size: 2048

Fingerprint: 5e889cbf3e3ed9bc318e643e1187004c7009fc964cab4cdd7533bddbef08d3a1

Found 1 unique certificates

#### **⋮** APPLICATION PERMISSIONS

| PERMISSION                                |           | INFO                               | DESCRIPTION  |
|---|-----------|------------------------------------|--|
| android.permission.INTERNET               | normal    | full Internet access               | Allows an application to create network sockets.   |
| android.permission.CALL_PHONE             |           | directly call phone<br>numbers     | Allows the application to call phone numbers without your intervention. Malicious applications may cause unexpected calls on your phone bill. Note that this does not allow the application to call emergency numbers. |
| android.permission.ACCESS_NETWORK_STATE   | normal    | view network status                | Allows an application to view the status of all networks.  |
| android.permission.ACCESS_COARSE_LOCATION |           | coarse (network-based)<br>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.           |

| PERMISSION                                     |           | INFO   | DESCRIPTION   |
|--|-----------|--|---|
| android.permission.ACCESS_BACKGROUND_LOCATION  | dangerous | access location in background                              | Allows an app to access location in the background.   |
| android.permission.CAMERA                      |           | 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.RECORD_AUDIO                |           | record audio   | Allows application to access the audio record path.   |
| android.permission.MODIFY_AUDIO_SETTINGS       | normal    | change your audio<br>settings                              | Allows application to modify global audio settings, such as volume and routing.   |
| android.permission.RECEIVE_BOOT_COMPLETED      |           | automatically start at<br>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.FOREGROUND_SERVICE          | normal    | enables regular apps to<br>use<br>Service.startForeground. | Allows a regular application to use Service.startForeground.  |
| android.permission.FOREGROUND_SERVICE_LOCATION | normal    | allows foreground<br>services with location<br>use.        | Allows a regular application to use Service.startForeground with the type "location".   |

| PERMISSION                                | STATUS    | INFO  | DESCRIPTION   |
|---|-----------|---|---|
| android.permission.BLUETOOTH_SCAN         |           | required for discovering and pairing Bluetooth devices. | Required to be able to discover and pair nearby Bluetooth devices.                            |
| android.permission.BLUETOOTH_CONNECT      |           | necessary for connecting to paired Bluetooth devices.   | Required to be able to connect to paired Bluetooth devices.                                   |
| android.permission.SCHEDULE_EXACT_ALARM   | normal    | permits exact alarm scheduling for background work.     | Allows an app to use exact alarm scheduling APIs to perform timing sensitive background work. |
| android.permission.POST_NOTIFICATIONS     | dangerous | allows an app to post notifications.                    | Allows an app to post notifications   |
| android.permission.BLUETOOTH              |           | create Bluetooth<br>connections                         | Allows applications to connect to paired bluetooth devices.                                   |
| android.permission.WRITE_EXTERNAL_STORAGE |           | read/modify/delete<br>external storage<br>contents      | Allows an application to write to external storage.   |
| android.permission.READ_EXTERNAL_STORAGE  |           | read external storage contents                          | Allows an application to read from external storage.  |
| android.permission.VIBRATE                | normal    | control vibrator  | Allows the application to control the vibrator.   |
| android.permission.BLUETOOTH_ADMIN        | normal    | bluetooth<br>administration                             | Allows applications to discover and pair bluetooth devices.                                   |

| PERMISSION   |         | INFO  | DESCRIPTION  |
|--|---------|---|--|
| android.permission.USE_BIOMETRIC                                     | normal  | allows use of device-<br>supported biometric<br>modalities. | Allows an app to use device supported biometric modalities.                                      |
| android.permission.USE_FINGERPRINT                                   | normal  | allow use of fingerprint                                    | This constant was deprecated in API level 28. Applications should request USE_BIOMETRIC instead. |
| android.permission.WAKE_LOCK   | normal  | prevent phone from sleeping                                 | Allows an application to prevent the phone from going to sleep.                                  |
| com.google.android.c2dm.permission.RECEIVE                           |         | recieve push<br>notifications                               | Allows an application to receive push notifications from cloud.                                  |
| com.smilegeneration.mychart.DYNAMIC_RECEIVER_NOT_EXPORTED_PERMISSION | unknown | Unknown permission  | Unknown permission from android reference  |

## **命 APKID ANALYSIS**

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

| FILE         | DETAILS      |   |  |
|--------------|--------------|---|--|
|              | FINDINGS     | DETAILS   |  |
|              | yara_issue   | yara issue - dex file recognized by apkid but not yara module |  |
| classes.dex  | Anti-VM Code | Build.FINGERPRINT check Build.MANUFACTURER check              |  |
|              | Compiler     | unknown (please file detection issue!)                        |  |
|              |              |   |  |
|              | FINDINGS     | DETAILS   |  |
| classes2.dex | yara_issue   | yara issue - dex file recognized by apkid but not yara module |  |
|              | Compiler     | unknown (please file detection issue!)                        |  |
|              |              |   |  |
|              | FINDINGS     | DETAILS   |  |
| classes3.dex | yara_issue   | yara issue - dex file recognized by apkid but not yara module |  |
|              | Compiler     | unknown (please file detection issue!)                        |  |

| FILE                                     | DETAILS      |   |  |
|--|--------------|---|--|
|  | FINDINGS     | DETAILS   |  |
| classes4.dex                             | yara_issue   | yara issue - dex file recognized by apkid but not yara module |  |
|  | Compiler     | unknown (please file detection issue!)                        |  |
|  |              |   |  |
|  | FINDINGS     | DETAILS   |  |
| classes5.dex                             | yara_issue   | yara issue - dex file recognized by apkid but not yara module |  |
|  | Anti-VM Code | Build.FINGERPRINT check Build.MANUFACTURER check              |  |
|  | Compiler     | unknown (please file detection issue!)                        |  |
|  |              |   |  |
|  | FINDINGS     | DETAILS   |  |
| classes6.dex                             | yara_issue   | yara issue - dex file recognized by apkid but not yara module |  |
| S. S | Anti-VM Code | Build.MANUFACTURER check                                      |  |
|  | Compiler     | unknown (please file detection issue!)                        |  |



| ACTIVITY   | INTENT                              |
|--|-------------------------------------|
| epic.mychart.android.library.prelogin.SplashActivity | Schemes: smilegenerationmychart://, |

#### **△** NETWORK SECURITY

HIGH: 2 | WARNING: 1 | INFO: 0 | SECURE: 0

| NO | SCOPE | SEVERITY | DESCRIPTION   |
|----|-------|----------|---|
| 1  | *     | high     | Base config is insecurely configured to permit clear text traffic to all domains. |
| 2  | *     | warning  | Base config is configured to trust system certificates.                           |
| 3  | *     | high     | Base config is configured to trust user installed certificates.                   |

#### **CERTIFICATE ANALYSIS**

HIGH: 0 | WARNING: 0 | INFO: 1

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

#### **Q** MANIFEST ANALYSIS

HIGH: 0 | WARNING: 7 | INFO: 0 | SUPPRESSED: 0

| NO | ISSUE   | SEVERITY | DESCRIPTION   |
|----|---|----------|---|
| 1  | App can be installed on a vulnerable Android version Android 9, minSdk=28]  | warning  | This application can be installed on an older version of android that has multiple vulnerabilities. Support an Android version => 10, API 29 to receive reasonable security updates.  |
| 2  | App has a Network Security Configuration [android:networkSecurityConfig=@xml/wp_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 (epic.mychart.android.library.healthlinks.HealthConnectPrivacyPolicyActivity) is not Protected. [android:exported=true]  | 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.   |
| 4  | Activity-Alias (epic.mychart.android.library.HealthConnectViewPermissionsActivity) is Protected by a permission, but the protection level of the permission should be checked. Permission: android.permission.START_VIEW_PERMISSION_USAGE [android:exported=true] | warning  | An Activity-Alias 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.health.platform.client.impl.sdkservice.HealthDataSdkService) is not Protected. [android:exported=true]  | warning  | A Service is found to be shared with other apps on the device therefore leaving it accessible to any other application on the device.   |

| NO | ISSUE   | SEVERITY | DESCRIPTION  |
|----|---|----------|--|
| 6  | Service (com.google.android.gms.auth.api.signin.RevocationBoundService) is Protected by a permission, but the protection level of the permission should be checked. Permission: com.google.android.gms.auth.api.signin.permission.REVOCATION_NOTIFICATION [android:exported=true] | warning  | 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.            |
| 7  | 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]                                   | 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. |
| 8  | 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

HIGH: 2 | WARNING: 7 | INFO: 1 | SECURE: 0 | SUPPRESSED: 0

| NO | ISSUE  | SEVERITY | STANDARDS   | FILES   |
|----|--|----------|---|---|
| 1  | Insecure WebView Implementation.  Execution of user controlled code in  WebView is a critical Security Hole. | warning  | CWE: CWE-749: Exposed Dangerous Method or Function OWASP Top 10: M1: Improper Platform Usage OWASP MASVS: MSTG-PLATFORM-7 | com/epic/patientengagement/core/mychart<br>web/MyChartWebViewFragment.java<br>epic/mychart/android/library/prelogin/Accou<br>ntManagementWebViewActivity.java   |
| 2  | App can read/write to External Storage. Any App can read data written to External Storage.                   | warning  | CWE: CWE-276: Incorrect Default Permissions<br>OWASP Top 10: M2: Insecure Data Storage<br>OWASP MASVS: MSTG-STORAGE-2     | com/epic/patientengagement/core/utilities/D eviceUtil.java com/epic/patientengagement/core/utilities/fi le/FileChooserType.java com/epic/patientengagement/core/utilities/fi le/FileUtil.java epic/mychart/android/library/utilities/Device Util.java   |
|    |  |          |   | com/epic/patientengagement/authentication /login/activities/PreloginInternalWebViewActi vity.java com/epic/patientengagement/authentication /login/activities/PreloginInternalWebViewFra gment.java com/epic/patientengagement/authentication /login/activities/SAMLLoginActivity.java com/epic/patientengagement/authentication /login/fragments/EnterPasscodeDialogFragm ent.java com/epic/patientengagement/authentication /login/fragments/LoginFragment.java com/epic/patientengagement/authentication /login/fragments/LongTextDialogFragment.ja va com/epic/patientengagement/authentication |

| NO | ISSUE  | SEVERITY | STANDARDS   | /login/fragments/OrgFragment.java  |
|----|--|----------|---|--|
| 3  | 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 | com/epic/patientengagement/authentication /login/utilities/LoginResultCode.java com/epic/patientengagement/authentication /login/utilities/OrganizationLoginHelper.java com/epic/patientengagement/authentication /login/utilities/SamlSessionManager.java com/epic/patientengagement/core/permissi ons/PermissionProminentDisclosure.java com/epic/patientengagement/homepage/Ho mePageComponentAPI.java com/epic/patientengagement/homepage/on boarding/a.java epic/mychart/android/library/api/classes/WP APIAuthentication.java epic/mychart/android/library/healthlinks/e.j ava org/altbeacon/beacon/service/MonitoringDa ta.java org/altbeacon/beacon/service/RangingData.j ava org/altbeacon/beacon/service/SettingsData.j ava org/altbeacon/beacon/service/SettingsData.j ava org/altbeacon/beacon/service/StartRMData.j ava |
|    |  |          |   | com/epic/patientengagement/core/session/ MyChartOrgToOrgJumpManager.java com/epic/patientengagement/core/ui/Progre ssBar.java com/epic/patientengagement/core/ui/button s/CoreButton.java com/epic/patientengagement/core/ui/button s/CoreButtonUtils.java com/epic/patientengagement/core/ui/stickyh eader/StickyHeaderAdapter.java com/epic/patientengagement/core/ui/tutoria ls/PETutorialFragment.java com/epic/patientengagement/core/ui/tities/b   |

| NO | ISSUE   | SEVERITY | STANDARDS  | roadcast/BroadcastManager.java <b>FJht/S</b> pic/patientengagement/core/webservi ce/WebServiceTask.java  |
|----|---|----------|--|--|
| 4  | 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/epic/patientengagement/onboarding/vi ews/OrgTermsConditionsView.java com/epic/patientengagement/todo/progress /b.java epic/mychart/android/library/api/classes/WP APIFirebaseMessagingService.java epic/mychart/android/library/appointments/ FutureAppointmentFragment.java epic/mychart/android/library/appointments/ c.java epic/mychart/android/library/campaigns/f.ja va epic/mychart/android/library/customactivitie s/JavaScriptWebViewActivity.java epic/mychart/android/library/customadapter s/StickyHeaderSectionAdapter/c.java epic/mychart/android/library/general/Access Result.java epic/mychart/android/library/general/DeepL inkManager.java epic/mychart/android/library/healthlinks/c.ja va epic/mychart/android/library/location/fragm ents/e.java epic/mychart/android/library/location/servic es/AppointmentArrivalService.java epic/mychart/android/library/pushnotificatio ns/CustomFcmListenerService.java epic/mychart/android/library/trackmyhealth /a.java epic/mychart/android/library/utilities/c0.java epic/mychart/android/library/utilities/e2.jav a epic/mychart/android/library/utilities/f0.java |

| NO | ISSUE  | SEVERITY | STANDARDS   | epic/mychart/android/library/utilities/q0.jav FILES epic/mychart/android/library/utilities/z1.java   |
|----|--|----------|---|--|
|    |  |          |   | org/altbeacon/beacon/BeaconParser.java org/altbeacon/beacon/logging/ApiTrackingLo gger.java org/altbeacon/beacon/logging/InfoAndroidL ogger.java org/altbeacon/beacon/logging/VerboseAndro idLogger.java org/altbeacon/beacon/logging/WarningAndr oidLogger.java org/altbeacon/beacon/service/ScanHelper.ja va org/altbeacon/beacon/service/ScanState.java org/altbeacon/beacon/utils/EddystoneTelem etryAccessor.java |
| 5  | The App uses an insecure Random Number Generator.  | warning  | CWE: CWE-330: Use of Insufficiently Random<br>Values<br>OWASP Top 10: M5: Insufficient Cryptography<br>OWASP MASVS: MSTG-CRYPTO-6   | com/epic/patientengagement/homepage/ite<br>mfeed/webservice/items/ZeroStateFeedItem.<br>java<br>com/epic/patientengagement/todo/models/<br>QuestionnaireSeries.java<br>epic/mychart/android/library/utilities/m1.jav<br>a  |
| 6  | The App uses the encryption mode CBC with PKCS5/PKCS7 padding. This configuration is vulnerable to padding oracle attacks. | high     | CWE: CWE-649: Reliance on Obfuscation or<br>Encryption of Security-Relevant Inputs without<br>Integrity Checking<br>OWASP Top 10: M5: Insufficient Cryptography<br>OWASP MASVS: MSTG-CRYPTO-3 | com/epic/patientengagement/core/utilities/E<br>ncryptionUtil.java  |
| 7  | SHA-1 is a weak hash known to have hash collisions.  | warning  | CWE: CWE-327: Use of a Broken or Risky<br>Cryptographic Algorithm<br>OWASP Top 10: M5: Insufficient Cryptography<br>OWASP MASVS: MSTG-CRYPTO-4  | com/epic/patientengagement/core/utilities/E<br>ncryptionUtil.java  |

| NO | ISSUE  | SEVERITY | STANDARDS  | FILES   |
|----|--|----------|--|---|
| 8  | App creates temp file. Sensitive information should never be written into a temp file. | warning  | CWE: CWE-276: Incorrect Default Permissions<br>OWASP Top 10: M2: Insecure Data Storage<br>OWASP MASVS: MSTG-STORAGE-2                          | com/epic/patientengagement/core/pdfviewe<br>r/PdfViewModel.java<br>com/epic/patientengagement/core/utilities/fi<br>le/FileUtil.java<br>com/epic/patientengagement/pdfviewer/pdf<br>/PdfFile.java<br>epic/mychart/android/library/customviews/<br>PdfViewerActivity.java<br>epic/mychart/android/library/utilities/f0.java |
| 9  | MD5 is a weak hash known to have hash collisions.                                      | warning  | CWE: CWE-327: Use of a Broken or Risky<br>Cryptographic Algorithm<br>OWASP Top 10: M5: Insufficient Cryptography<br>OWASP MASVS: MSTG-CRYPTO-4 | epic/mychart/android/library/utilities/f0.java  |
| 10 | Remote WebView debugging is enabled.   | high     | CWE: CWE-919: Weaknesses in Mobile<br>Applications<br>OWASP Top 10: M1: Improper Platform Usage<br>OWASP MASVS: MSTG-RESILIENCE-2              | com/epic/patientengagement/core/mychart<br>web/MyChartWebViewFragment.java  |

## ■ NIAP ANALYSIS v1.3

| NO | IDENTIFIER | REQUIREMENT | FEATURE | DESCRIPTION |
|----|------------|-------------|---------|-------------|
|    |            |             |         |             |



| RULE<br>ID | BEHAVIOUR   | LABEL   | FILES  |
|------------|---|---------|--|
| 00063      | Implicit intent(view a web page, make a phone call, etc.) | control | com/epic/patientengagement/authentication/login/activities/PreloginInternalWebViewFr agment.java com/epic/patientengagement/authentication/login/activities/SAMLLoginActivity.java com/epic/patientengagement/authentication/login/fragments/LongTextDialogFragment.java com/epic/patientengagement/authentication/login/fragments/OrgFragment.java com/epic/patientengagement/authentication/login/utilities/PreloginDeeplinkManager.java com/epic/patientengagement/core/extensibility/ExtensibilityLaunchManager.java com/epic/patientengagement/core/file/FileViewActivity.java com/epic/patientengagement/core/file/FileViewActivity.java com/epic/patientengagement/core/mychartwebV/MyChartWebViewFragment.java com/epic/patientengagement/core/mychartweb/MyChartWebViewFragment.java com/epic/patientengagement/core/mychartweb/MyChartWebViewFragment.java com/epic/patientengagement/core/utilities/IntentUtil.java com/epic/patientengagement/core/utilities/MebUtil.java epic/mychart/android/library/campaigns/e.java epic/mychart/android/library/campaigns/e.java epic/mychart/android/library/community/WebCommunityManageMyAccountsActivity.java epic/mychart/android/library/customactivities/JavaScriptWebViewActivity.java epic/mychart/android/library/general/DeepLinkManager.java epic/mychart/android/library/general/FDILauncherActivity.java epic/mychart/android/library/general/FDILauncherActivity.java epic/mychart/android/library/healthlinks/f0.java epic/mychart/android/library/insurance/e.java epic/mychart/android/library/personalize/e.java epic/mychart/android/library/personalize/e.java epic/mychart/android/library/personalize/e.java epic/mychart/android/library/personalize/e.java epic/mychart/android/library/springboard/CustomFeature.java epic/mychart/android/library/springboard/SaseFeatureType.java epic/mychart/android/library/springboard/SaseFeatureType.java epic/mychart/android/library/springboard/CustomFeature.java epic/mychart/android/library/springboard/CustomFeature.java epic/mychart/android/library/springboard/SaseFeatureType.java epic/mychar |

| RULE<br>ID | BEHAVIOUR                          | LABEL                  | FILES   |
|------------|------------------------------------|------------------------|---|
| 00013      | Read file and put it into a stream | file                   | com/epic/patientengagement/pdfviewer/utilities/FileUtils.java epic/mychart/android/library/customobjects/StoredFile.java epic/mychart/android/library/customviews/PhotoViewerActivity.java epic/mychart/android/library/utilities/DeviceUtil.java epic/mychart/android/library/utilities/b0.java org/altbeacon/beacon/distance/ModelSpecificDistanceCalculator.java org/altbeacon/beacon/service/MonitoringStatus.java org/altbeacon/beacon/service/ScanState.java  |
| 00091      | Retrieve data from broadcast       | collection             | com/epic/patientengagement/authentication/login/fragments/LoginFragment.java com/epic/patientengagement/onboarding/views/OrgTermsConditionsView.java epic/mychart/android/library/appointments/FutureAppointmentFragment.java epic/mychart/android/library/billing/PaymentConfirmationActivity.java epic/mychart/android/library/billing/RecentStatementActivity.java epic/mychart/android/library/healthadvisories/HealthAdvisoryMarkCompleteActivity.java a epic/mychart/android/library/medications/MedRefillActivity.java epic/mychart/android/library/messages/ComposeActivity.java epic/mychart/android/library/personalize/PersonalizeFragment.java epic/mychart/android/library/springboard/CustomWebModeJumpActivity.java epic/mychart/android/library/testresults/TestResultDetailActivity.java |
| 00112      | Get the date of the calendar event | collection<br>calendar | epic/mychart/android/library/healthlinks/HealthDataSyncService.java<br>epic/mychart/android/library/healthlinks/c.java<br>epic/mychart/android/library/healthlinks/v.java   |
| 00202      | Make a phone call                  | control                | epic/mychart/android/library/utilities/f0.java  |
| 00203      | Put a phone number into an intent  | control                | epic/mychart/android/library/utilities/f0.java  |

| RULE<br>ID | BEHAVIOUR   | LABEL                  | FILES   |
|------------|---|------------------------|---|
| 00051      | Implicit intent(view a web page, make a phone call, etc.) via setData | control                | com/epic/patientengagement/authentication/login/activities/PreloginInternalWebViewFr agment.java epic/mychart/android/library/accountsettings/AccountSettingsActivity.java epic/mychart/android/library/springboard/BaseFeatureType.java epic/mychart/android/library/utilities/f0.java                             |
| 00036      | Get resource file from res/raw<br>directory                           | reflection             | epic/mychart/android/library/accountsettings/AccountSettingsActivity.java<br>epic/mychart/android/library/prelogin/WebServer.java<br>epic/mychart/android/library/springboard/BaseFeatureType.java<br>epic/mychart/android/library/springboard/CustomFeature.java<br>epic/mychart/android/library/utilities/f0.java |
| 00022      | Open a file from given absolute path of the file                      | file                   | com/epic/patientengagement/core/utilities/DeviceUtil.java<br>epic/mychart/android/library/customviews/VideoPlayerActivity.java<br>epic/mychart/android/library/messages/Attachment.java<br>org/altbeacon/beacon/service/ScanState.java  |
| 00016      | Get location info of the device and put it to JSON object             | location<br>collection | epic/mychart/android/library/location/models/MonitoredForArrivalAppointment.java  |
| 00014      | Read file into a stream and put it into a JSON object                 | file                   | org/altbeacon/beacon/distance/ModelSpecificDistanceCalculator.java  |
| 00191      | Get messages in the SMS inbox   | sms                    | com/epic/patientengagement/core/file/FileViewKt.java  |
| 00096      | Connect to a URL and set request method                               | command<br>network     | com/epic/patientengagement/core/pdfviewer/PdfViewModel.java<br>com/epic/patientengagement/core/webview/CoreWebViewDownloadManager\$downloa<br>d\$2.java<br>epic/mychart/android/library/customactivities/TitledWebViewActivity.java<br>epic/mychart/android/library/utilities/s.java                                |

| RULE<br>ID | BEHAVIOUR   | LABEL                   | FILES   |
|------------|---|-------------------------|---|
| 00089      | Connect to a URL and receive input stream from the server | command<br>network      | com/epic/patientengagement/core/pdfviewer/PdfViewModel.java<br>com/epic/patientengagement/core/webservice/WebServiceTask.java<br>com/epic/patientengagement/onboarding/views/OrgTermsConditionsView.java<br>epic/mychart/android/library/customactivities/TitledWebViewActivity.java<br>epic/mychart/android/library/utilities/s.java<br>org/altbeacon/beacon/distance/DistanceConfigFetcher.java |
| 00030      | Connect to the remote server through the given URL        | network                 | com/epic/patientengagement/core/pdfviewer/PdfViewModel.java<br>com/epic/patientengagement/core/webservice/WebServiceTask.java<br>com/epic/patientengagement/onboarding/views/OrgTermsConditionsView.java<br>epic/mychart/android/library/customactivities/TitledWebViewActivity.java<br>epic/mychart/android/library/utilities/s.java   |
| 00109      | Connect to a URL and get the response code                | network<br>command      | com/epic/patientengagement/core/webservice/WebServiceTask.java<br>epic/mychart/android/library/customactivities/TitledWebViewActivity.java<br>org/altbeacon/beacon/distance/DistanceConfigFetcher.java  |
| 00108      | Read the input stream from given URL                      | network<br>command      | com/epic/patientengagement/core/pdfviewer/PdfViewModel.java<br>epic/mychart/android/library/customobjects/a.java  |
| 00094      | Connect to a URL and read data from it                    | command<br>network      | com/epic/patientengagement/core/pdfviewer/PdfViewModel.java<br>epic/mychart/android/library/healthlinks/e.java  |
| 00125      | Check if the given file path exist                        | file                    | com/epic/patientengagement/core/pdfviewer/PdfFragment.java<br>com/epic/patientengagement/pdfviewer/PdfViewerFragment.java   |
| 00024      | Write file after Base64 decoding                          | reflection file         | epic/mychart/android/library/messages/Attachment.java   |
| 00072      | Write HTTP input stream into a file                       | command<br>network file | com/epic/patientengagement/core/pdfviewer/PdfViewModel.java<br>com/epic/patientengagement/core/webview/CoreWebViewDownloadManager\$downloa<br>d\$2\$result\$1.java  |

| RULE<br>ID | BEHAVIOUR                                 | LABEL | FILES  |
|------------|---|-------|--|
| 00012      | Read data and put it into a buffer stream | file  | epic/mychart/android/library/utilities/b0.java |
| 00153      | Send binary data over HTTP                | http  | epic/mychart/android/library/utilities/s.java  |

#### FIREBASE DATABASES ANALYSIS

| TITLE                                  | SEVERITY | DESCRIPTION   |
|--|----------|---|
| App talks to a<br>Firebase<br>database | info     | The app talks to Firebase database at https://haiku-push-notifications.firebaseio.com   |
| App talks to a<br>Firebase<br>database | info     | The app talks to Firebase database at https://fifth-liberty-89719.firebaseio.com  |
| Firebase<br>Remote Config<br>disabled  | secure   | Firebase Remote Config is disabled for https://firebaseremoteconfig.googleapis.com/v1/projects/706446232476/namespaces/firebase:fetch? key=AlzaSyBv776FvkVLGKyvr4AR_IFvkThhUx18A2s. This is indicated by the response: {'state': 'NO_TEMPLATE'} |

#### **\*: ::** ABUSED PERMISSIONS

| TYPE                           | MATCHES | PERMISSIONS  |
|--------------------------------|---------|--|
| Malware<br>Permissions         | 11/25   | android.permission.INTERNET, android.permission.ACCESS_NETWORK_STATE, android.permission.ACCESS_COARSE_LOCATION, android.permission.ACCESS_FINE_LOCATION, android.permission.CAMERA, android.permission.RECORD_AUDIO, android.permission.RECEIVE_BOOT_COMPLETED, android.permission.WRITE_EXTERNAL_STORAGE, android.permission.READ_EXTERNAL_STORAGE, android.permission.VIBRATE, android.permission.WAKE_LOCK |
| Other<br>Common<br>Permissions | 7/44    | android.permission.CALL_PHONE, android.permission.ACCESS_BACKGROUND_LOCATION, android.permission.MODIFY_AUDIO_SETTINGS, android.permission.FOREGROUND_SERVICE, android.permission.BLUETOOTH, android.permission.BLUETOOTH_ADMIN, com.google.android.c2dm.permission.RECEIVE  |

#### **Malware Permissions:**

Top permissions that are widely abused by known malware.

#### **Other Common Permissions:**

Permissions that are commonly abused by known malware.

#### • OFAC SANCTIONED COUNTRIES

This app may communicate with the following OFAC sanctioned list of countries.

| DOMAIN |
|--------|
|--------|

#### **Q DOMAIN MALWARE CHECK**

| DOMAIN | STATUS | GEOLOCATION |
|--------|--------|-------------|
|--------|--------|-------------|

| DOMAIN                         | STATUS | GEOLOCATION   |
|--------------------------------|--------|---|
| play.google.com                | ok     | IP: 142.250.188.238  Country: United States of America Region: California City: Mountain View Latitude: 37.405991 Longitude: -122.078514 View: Google Map |
| www.w3.org                     | ok     | IP: 104.18.22.19 Country: United States of America Region: California City: San Francisco Latitude: 37.775700 Longitude: -122.395203 View: Google Map     |
| www.smilegenerationmychart.com | ok     | IP: 45.42.34.188  Country: United States of America Region: Wisconsin City: Verona Latitude: 42.990845 Longitude: -89.568443 View: Google Map             |
| ichart2.epic.com               | ok     | IP: 199.204.56.101 Country: United States of America Region: Wisconsin City: Madison Latitude: 43.073051 Longitude: -89.401230 View: Google Map           |

Т

| DOMAIN                                  | STATUS | GEOLOCATION  |
|---|--------|--|
| schemas.datacontract.org                | ok     | IP: 207.46.197.115 Country: United States of America Region: Washington City: Redmond Latitude: 47.682899 Longitude: -122.120903 View: Google Map  |
| www.epic.com                            | ok     | IP: 13.107.246.71 Country: Netherlands Region: Noord-Holland City: Amsterdam Latitude: 52.374031 Longitude: 4.889690 View: Google Map              |
| haiku-push-notifications.firebaseio.com | ok     | IP: 34.120.160.131 Country: United States of America Region: Missouri City: Kansas City Latitude: 39.099731 Longitude: -94.578568 View: Google Map |
| rex.webqa.epic.com                      | ok     | No Geolocation information available.  |
| www.shareeverywhere.com                 | ok     | IP: 199.204.56.202 Country: United States of America Region: Wisconsin City: Madison Latitude: 43.073051 Longitude: -89.401230 View: Google Map    |

| DOMAIN                 | STATUS | GEOLOCATION  |
|------------------------|--------|--|
| mobilepreview.epic.com | ok     | IP: 199.204.56.221 Country: United States of America Region: Wisconsin City: Madison Latitude: 43.073051 Longitude: -89.401230 View: Google Map        |
| www.apache.org         | ok     | IP: 151.101.2.132 Country: United States of America Region: California City: San Francisco Latitude: 37.775700 Longitude: -122.395203 View: Google Map |
| ichart1.epic.com       | ok     | IP: 204.187.138.40 Country: United States of America Region: Wisconsin City: Verona Latitude: 42.990845 Longitude: -89.568443 View: Google Map         |
| schemas.microsoft.com  | ok     | IP: 13.107.246.71 Country: Netherlands Region: Noord-Holland City: Amsterdam Latitude: 52.374031 Longitude: 4.889690 View: Google Map                  |

| DOMAIN                  | STATUS | GEOLOCATION   |
|-------------------------|--------|---|
| s3.amazonaws.com        | ok     | IP: 54.231.231.16 Country: Japan Region: Tokyo City: Tokyo Latitude: 35.689507 Longitude: 139.691696 View: Google Map                                   |
| www.googleapis.com      | ok     | IP: 142.250.74.106 Country: United States of America Region: California City: Mountain View Latitude: 37.405991 Longitude: -122.078514 View: Google Map |
| www.mychart.org         | ok     | IP: 13.107.246.71 Country: Netherlands Region: Noord-Holland City: Amsterdam Latitude: 52.374031 Longitude: 4.889690 View: Google Map                   |
| www.smilegeneration.com | ok     | IP: 104.18.29.45 Country: United States of America Region: California City: San Francisco Latitude: 37.775700 Longitude: -122.395203 View: Google Map   |
| schemas.android.com     | ok     | No Geolocation information available.   |

| DOMAIN                             | STATUS | GEOLOCATION  |
|------------------------------------|--------|--|
| mychart.et1079.epichosted.com      | ok     | IP: 45.42.34.188  Country: United States of America Region: Wisconsin City: Verona Latitude: 42.990845 Longitude: -89.568443 View: Google Map          |
| altbeacon.github.io                | ok     | IP: 185.199.109.153 Country: United States of America Region: Pennsylvania City: California Latitude: 40.065632 Longitude: -79.891708 View: Google Map |
| fifth-liberty-89719.firebaseio.com | ok     | IP: 35.201.97.85 Country: United States of America Region: Missouri City: Kansas City Latitude: 39.099731 Longitude: -94.578568 View: Google Map       |
| xmlpull.org                        | ok     | IP: 185.199.109.153 Country: United States of America Region: Pennsylvania City: California Latitude: 40.065632 Longitude: -79.891708 View: Google Map |



| EMAIL   | FILE                    |
|---|-------------------------|
| ejemplo@ejemplo.com<br>mychart@smilegeneration.com<br>example@example.com | Android String Resource |

#### **A** TRACKERS

| TRACKER   | CATEGORIES | URL  |
|-----------|------------|--|
| AltBeacon |            | https://reports.exodus-privacy.eu.org/trackers/219 |

## **▶** HARDCODED SECRETS

# POSSIBLE SECRETS "firebase\_database\_url": "https://fifth-liberty-89719.firebaseio.com" "google\_api\_key": "AlzaSyBv776FvkVLGKyvr4AR\_IFvkThhUx18A2s" "google\_crash\_reporting\_api\_key": "AlzaSyBv776FvkVLGKyvr4AR\_IFvkThhUx18A2s" "wp\_key\_preferences\_about": "wp\_preference\_about"

# **POSSIBLE SECRETS** "wp\_key\_preferences\_allow\_all\_locales": "wp\_key\_preferences\_allow\_all\_locales" "wp\_key\_preferences\_app\_review\_header": "wp\_preferences\_app\_review\_header" "wp\_key\_preferences\_app\_review\_mode\_switch": "wp\_key\_preferences\_app\_review\_mode\_switch" "wp\_key\_preferences\_clear\_disc\_webview\_cache": "wp\_key\_preferences\_clear\_disc\_webview\_cache" "wp\_key\_preferences\_clear\_ram\_webview\_cache": "wp\_key\_preferences\_clear\_ram\_webview\_cache" "wp\_key\_preferences\_clear\_webview\_cache": "wp\_key\_preferences\_clear\_webview\_cache" "wp\_key\_preferences\_custom\_locale": "wp\_key\_preferences\_custom\_locale" "wp\_key\_preferences\_custom\_phone\_book": "wp\_preference\_custom\_phone\_book" "wp\_key\_preferences\_custom\_server": "wp\_preference\_custom\_server" "wp\_key\_preferences\_custom\_server\_switch": "wp\_preference\_custom\_server\_switch" "wp\_key\_preferences\_enable\_webview\_cache": "wp\_key\_preferences\_enable\_webview\_cache" "wp\_key\_preferences\_health\_connect\_switch": "wp\_key\_preferences\_health\_connect\_switch" "wp\_key\_preferences\_health\_data\_debug\_switch": "wp\_key\_preferences\_health\_data\_debug\_switch" "wp\_key\_preferences\_screenshots": "wp\_preference\_screenshots" "wp\_key\_preferences\_testing\_header": "wp\_preferences\_testing\_header"

## **POSSIBLE SECRETS** "wp\_key\_preferences\_tool\_tip": "wp\_key\_preferences\_tool\_tip" "wp\_key\_preferences\_webivew\_cache\_header": "wp\_preferences\_webview\_cache\_header" "wp\_login\_password" : "Password" "wp\_login\_username": "Username" "wp\_share\_everywhere\_dismiss\_token\_button\_title": "Dismiss" "wp\_two\_factor\_authenticate\_code\_button": "Verify" "wp\_two\_factor\_authentication\_success\_accessibility\_announcement": "Success!" "wp\_login\_password": "Contraseña" "wp\_share\_everywhere\_dismiss\_token\_button\_title": "Descartar" "wp\_two\_factor\_authenticate\_code\_button": "Verificar" "wp\_two\_factor\_authentication\_success\_accessibility\_announcement": "¡Éxito!"



Title: Smile Generation MyChart

Score: 4.61 Installs: 100,000+ Price: 0 Android Version Support: Category: Medical Play Store URL: com.smilegeneration.mychart

**Developer Details:** PDS Health Technologies, PDS+Health+Technologies, None, https://www.smilegenerationmychart.com/, MyChart@SmileGeneration.com,

Release Date: Mar 24, 2020 Privacy Policy: Privacy link

#### **Description:**

With the Smile Generation MyChart mobile application, you can: • View your health history, medications, test results, and more • Schedule and manage your appointments • Communicate securely with your provider's office • View and pay your bills To use the Smile Generation MyChart mobile application, you need a MyChart account with a Smile Generation-trusted dental office. If you are an existing patient but do not have a MyChart account, you may learn how to create an account on our website at SmileGeneration.com/mychart. For questions about using the Smile Generation MyChart: • E-mail: mychart@smilegeneration.com • Call the support line at (800) 491-7021

#### **⋮**≡ SCAN LOGS

| Timestamp           | Event                                    | Error |
|---------------------|--|-------|
| 2025-09-01 09:18:16 | Generating Hashes                        | ОК    |
| 2025-09-01 09:18:16 | Extracting APK                           | OK    |
| 2025-09-01 09:18:16 | Unzipping                                | ОК    |
| 2025-09-01 09:18:17 | Parsing APK with androguard              | ОК    |
| 2025-09-01 09:18:18 | Extracting APK features using aapt/aapt2 | ОК    |
| 2025-09-01 09:18:18 | Getting Hardcoded Certificates/Keystores | ОК    |
| 2025-09-01 09:18:21 | Parsing AndroidManifest.xml              | ОК    |

| 2025-09-01 09:18:21 | Extracting Manifest Data   | ОК |
|---------------------|--|----|
| 2025-09-01 09:18:21 | Manifest Analysis Started  | ОК |
| 2025-09-01 09:18:21 | Reading Network Security config from wp_network_security_config.xml  | ОК |
| 2025-09-01 09:18:21 | Parsing Network Security config                                      | ОК |
| 2025-09-01 09:18:21 | Performing Static Analysis on: MyChart (com.smilegeneration.mychart) | ОК |
| 2025-09-01 09:18:21 | Fetching Details from Play Store: com.smilegeneration.mychart        | ОК |
| 2025-09-01 09:18:22 | Checking for Malware Permissions                                     | ОК |
| 2025-09-01 09:18:22 | Fetching icon path   | ОК |
| 2025-09-01 09:18:22 | Library Binary Analysis Started                                      | ОК |
| 2025-09-01 09:18:22 | Reading Code Signing Certificate                                     | ОК |
| 2025-09-01 09:18:22 | Running APKiD 2.1.5  | ОК |

| 2025-09-01 09:18:24 | Detecting Trackers                     | ОК |
|---------------------|--|----|
| 2025-09-01 09:18:29 | Decompiling APK to Java with JADX      | ОК |
| 2025-09-01 09:18:55 | Converting DEX to Smali                | ОК |
| 2025-09-01 09:18:55 | Code Analysis Started on - java_source | ОК |
| 2025-09-01 09:19:11 | Android SBOM Analysis Completed        | ОК |
| 2025-09-01 09:19:14 | Android SAST Completed                 | ОК |
| 2025-09-01 09:19:14 | Android API Analysis Started           | ОК |
| 2025-09-01 09:19:25 | Android API Analysis Completed         | ОК |
| 2025-09-01 09:19:25 | Android Permission Mapping Started     | ОК |
| 2025-09-01 09:19:39 | Android Permission Mapping Completed   | ОК |
| 2025-09-01 09:19:51 | Android Behaviour Analysis Started     | ОК |

| 2025-09-01 09:19:56 | Android Behaviour Analysis Completed             | ОК |
|---------------------|--|----|
| 2025-09-01 09:19:56 | Extracting Emails and URLs from Source Code      | ОК |
| 2025-09-01 09:20:02 | Email and URL Extraction Completed               | ОК |
| 2025-09-01 09:20:02 | Extracting String data from APK                  | ОК |
| 2025-09-01 09:20:02 | Extracting String data from Code                 | ОК |
| 2025-09-01 09:20:02 | Extracting String values and entropies from Code | ОК |
| 2025-09-01 09:20:30 | Performing Malware check on extracted domains    | ОК |
| 2025-09-01 09:20:33 | Saving to Database                               | ОК |

#### Report Generated by - MobSF v4.4.0

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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