



## ANDROID STATIC ANALYSIS REPORT



 NHS COVID-19 (1.0.0.223  
(0f7579d))

File Name:	uk.nhs.nhsx.colocate.apk
Package Name:	uk.nhs.nhsx.colocate
Average CVSS Score:	5.8
App Security Score:	25/100 (HIGH RISK)
Trackers Detection:	2/285



## FILE INFORMATION

**File Name:** uk.nhs.nhsx.colocate.apk

**Size:** 6.74MB

**MD5:** 978e61de44880def048fc08046f63d58

**SHA1:** c265d64073e94f417f658a0b61ab4071e870dfc0

**SHA256:** 2b78e4925af8d35d4c67111a4155fa7eb6ac1fc518d7f677e85d54e0085e8783

## i APP INFORMATION

**App Name:** NHS COVID-19

**Package Name:** uk.nhs.nhsx.colocate

**Main Activity:** uk.nhs.nhsx.sonar.android.app.MainActivity

**Target SDK:** 29

**Min SDK:** 24

**Max SDK:**

**Android Version Name:** 1.0.0.223 (0f7579d)

**Android Version Code:** 223



## APP COMPONENTS

**Activities:** 23

**Services:** 10

**Receivers:** 14

**Providers:** 3

**Exported Activities:** 0

**Exported Services:** 1

**Exported Receivers:** 3

**Exported Providers:** 0



## CERTIFICATE INFORMATION

APK is signed

v1 signature: True

v2 signature: True

v3 signature: False

Found 1 unique certificates

Subject: C=US, ST=California, L=Mountain View, O=Google Inc., OU=Android, CN=Android

Signature Algorithm: rsassa\_pkcs1v15

Valid From: 2020-03-26 10:21:40+00:00

Valid To: 2050-03-26 10:21:40+00:00

Issuer: C=US, ST=California, L=Mountain View, O=Google Inc., OU=Android, CN=Android

Serial Number: 0x977abaa548c95ee153cd5d67f96a52832f7103f3

Hash Algorithm: sha256

md5: 88e32ab68f4b6f6dd7fe09b09b7faad4

sha1: 4f227e0b750b05f680e3a5096354b14442e356ca

sha256: 7a74c8ce93643f4a645af2e04fce9e917cd5abbb89bcf44c06abb76679f9efd

sha512:  
3e89a42cc2c1ed84c4d188255085870c646556742c79aff9d9d98fab1839116a92e4255768b9843eb7880627013c08848b98eb468cdf87fee49de4ae70a7e8b

PublicKey Algorithm: rsa  
Bit Size: 4096  
Fingerprint: a0067cc213e5590f46329e93fdc33429b6d26c032b5eac50b01eba37c62edcb0

Certificate Status: Good  
Description: Certificate looks good.

## APPLICATION PERMISSIONS

PERMISSION	STATUS	INFO	DESCRIPTION
android.permission.BLUETOOTH	dangerous	create Bluetooth connections	Allows an application to view configuration of the local Bluetooth phone and to make and accept connections with paired devices.
android.permission.BLUETOOTH_ADMIN	dangerous	bluetooth administration	Allows an application to configure the local Bluetooth phone and to discover and pair with remote devices.
android.permission.FOREGROUND_SERVICE	normal		Allows a regular application to use Service.startForeground
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_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_BACKGROUND_LOCATION	dangerous	access location in background	Allows an app to access location in the background. If you're requesting this permission, you must also request either
android.permission.INTERNET	dangerous	full Internet access	Allows an application to create network sockets.
android.permission.RECEIVE_BOOT_COMPLETED	normal	automatically start 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.WRITE_INTERNAL_STORAGE	dangerous	Unknown permission from android reference	Unknown permission from android reference
android.permission.WAKE_LOCK	dangerous	prevent phone from sleeping	Allows an application to prevent the phone from going to sleep.

PERMISSION	STATUS	INFO	DESCRIPTION
android.permission.ACCESS_NETWORK_STATE	normal	view network status	Allows an application to view the status of all networks.
com.google.android.c2dm.permission.RECEIVE	signature	C2DM permissions	Permission for cloud to device messaging.

## APKID ANALYSIS

FILE	DETAILS	
classes.dex	FINDINGS	DETAILS
	Anti-VM Code	Build.FINGERPRINT check Build.MODEL check Build.MANUFACTURER check Build.PRODUCT check Build.TAGS check network operator name check possible VM check
	Anti Debug Code	Debug.isDebuggerConnected() check
	Compiler	dx
classes2.dex	FINDINGS	DETAILS
	Compiler	dx

## MANIFEST ANALYSIS

ISSUE	SEVERITY	DESCRIPTION
App has a Network Security Configuration [android:networkSecurityConfig]	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.
Broadcast Receiver (uk.nhs.nhsx.sonar.android.app.BootCompletedReceiver) is not Protected. An intent-filter exists.	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. The presence of intent-filter indicates that the Broadcast Receiver is explicitly exported.

ISSUE	SEVERITY	DESCRIPTION
Broadcast Receiver (uk.nhs.nhsx.sonar.android.app.PackageReplacedReceiver) is not Protected. An intent-filter exists.	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. The presence of intent-filter indicates that the Broadcast Receiver is explicitly exported.
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.
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.

## </> CODE ANALYSIS

ISSUE	SEVERITY	STANDARDS	FILES
			org/joda/time/DateTimeComparator.java org/joda/time/DateTimeZone.java org/joda/time/PeriodType.java org/joda/time/UTCDateTimeZone.java org/joda/time/LocalDate.java org/joda/time/format/DateTimeFormat.java a org/joda/time/convert/ConverterSet.java org/joda/time/field/PreciseDurationField.java ava org/joda/time/field/AbstractPartialFieldProperty.java org/joda/time/field/ScaledDurationField.java va org/joda/time/field/DelegatedDurationField.java org/joda/time/field/UnsupportedDurationField.java org/joda/time/field/AbstractReadableInstantFieldProperty.java org/joda/time/tz/FixedDateTimeZone.java org/joda/time/tz/CachedDateTimeZone.java a org/joda/time/chrono/IslamicChronology.java ava org/joda/time/chrono/BasicChronology.java va org/joda/time/chrono/ZonedChronology.java

ISSUE	SEVERITY	STANDARDS	FILES
			<p>org/joda/time/chrono/ExtendedChronology.java</p> <p>org/joda/time/chrono/JulianChronology.java</p> <p>org/joda/time/chrono/CopticChronology.java</p> <p>org/joda/time/chrono/GJCacheKey.java</p> <p>org/joda/time/chrono/GregorianCalendar.java</p> <p>org/joda/time/chrono/LimitChronology.java</p> <p>org/joda/time/chrono/BuddhistChronology.java</p> <p>org/joda/time/chrono/StrictChronology.java</p> <p>org/joda/time/chrono/EthiopicChronology.java</p> <p>org/joda/time/chrono/LenientChronology.java</p> <p>org/joda/time/chrono/GJChronology.java</p> <p>org/joda/time/chrono/ISOChronology.java</p> <p>org/joda/time/base/AbstractPartial.java</p> <p>org/joda/time/base/AbstractPeriod.java</p> <p>org/joda/time/base/AbstractInterval.java</p> <p>org/joda/time/base/BaseSingleFieldPeriod.java</p> <p>org/joda/time/base/AbstractInstant.java</p> <p>org/bouncycastle/x509/X509CertificatePair.java</p> <p>org/bouncycastle/x509/AttributeCertificateIssuer.java</p> <p>org/bouncycastle/x509/AttributeCertificateHolder.java</p> <p>org/bouncycastle/asn1/ASN1Set.java</p> <p>org/bouncycastle/asn1/LazyEncodedSequence.java</p> <p>org/bouncycastle/asn1/ASN1Sequence.java</p> <p>org/bouncycastle/asn1/ASN1Object.java</p> <p>org/bouncycastle/asn1/ASN1External.java</p> <p>org/bouncycastle/asn1/ASN1ObjectIdentifier.java</p> <p>org/bouncycastle/asn1/ASN1TaggedObject.java</p> <p>org/bouncycastle/asn1/x509/X509Name.java</p> <p>org/bouncycastle/asn1/x509/PKIXNameConstraintValidator.java</p> <p>org/bouncycastle/asn1/x509/Extension.java</p> <p>org/bouncycastle/asn1/x509/X509Extension.java</p> <p>org/bouncycastle/asn1/x509/CertificateList.java</p> <p>org/bouncycastle/asn1/x500/style/AbstractX500NameStyle.java</p> <p>org/bouncycastle/pqc/math/linearalgebra/GF2mMatrix.java</p> <p>org/bouncycastle/pqc/math/linearalgebra/PolynomialGF2mSmallM.java</p> <p>org/bouncycastle/pqc/math/linearalgebra/GF2nField.java</p> <p>org/bouncycastle/pqc/math/linearalgebra/GF2mVector.java</p> <p>org/bouncycastle/pqc/math/linearalgebra/GF2nPolynomialElement.java</p>

ISSUE	SEVERITY	STANDARDS	<p>org/bouncycastle/pqc/math/linearalgebra/ElementPolynomial.java</p> <p>org/bouncycastle/pqc/jcajce/provider/mceliece/BCMcEliecePublicKey.java</p> <p>org/bouncycastle/pqc/jcajce/provider/mceliece/BCMcElieceCCA2PublicKey.java</p> <p>org/bouncycastle/pqc/jcajce/provider/mceliece/BCMcElieceCCA2PrivateKey.java</p> <p>org/bouncycastle/pqc/jcajce/provider/mceliece/BCMcEliecePrivateKey.java</p> <p>org/bouncycastle/pqc/jcajce/provider/rainbow/BCRainbowPrivateKey.java</p> <p>org/bouncycastle/pqc/jcajce/provider/sphincs/BCSphincs256PrivateKey.java</p> <p>org/bouncycastle/pqc/jcajce/provider/sphincs/BCSphincs256PublicKey.java</p> <p>org/bouncycastle/pqc/jcajce/provider/xmss/BCXMSSPrivateKey.java</p> <p>org/bouncycastle/pqc/jcajce/provider/xmss/BCXMSSMTPublicKey.java</p> <p>org/bouncycastle/pqc/jcajce/provider/xmss/BCXMSSPublicKey.java</p> <p>org/bouncycastle/pqc/jcajce/provider/xmss/BCXMSSMTPrivateKey.java</p> <p>org/bouncycastle/math/ec/ECPoint.java</p> <p>org/bouncycastle/math/ec/ECFieldElement.java</p> <p>org/bouncycastle/math/ec/ECCurve.java</p> <p>org/bouncycastle/math/ec/SimpleBigDecimal.java</p> <p>org/bouncycastle/math/ec/custom/sec/SecP256K1FieldElement.java</p> <p>org/bouncycastle/math/ec/custom/sec/SecP224K1FieldElement.java</p> <p>org/bouncycastle/math/ec/custom/sec/SecP256R1FieldElement.java</p> <p>org/bouncycastle/math/ec/custom/sec/SecP192R1FieldElement.java</p> <p>org/bouncycastle/math/ec/custom/sec/SecP128R1FieldElement.java</p> <p>org/bouncycastle/math/ec/custom/sec/SecP224R1FieldElement.java</p> <p>org/bouncycastle/math/ec/custom/sec/SecP160R2FieldElement.java</p> <p>org/bouncycastle/math/ec/custom/sec/SecP521R1FieldElement.java</p> <p>org/bouncycastle/math/ec/custom/sec/SecP192K1FieldElement.java</p> <p>org/bouncycastle/math/ec/custom/sec/SecP384R1FieldElement.java</p> <p>org/bouncycastle/math/ec/custom/sec/SecP160R1FieldElement.java</p> <p>org/bouncycastle/math/ec/custom/gm/SM2P256V1FieldElement.java</p> <p>org/bouncycastle/math/ec/custom/djb/Curve25519FieldElement.java</p> <p>org/bouncycastle/math/field/PrimeField.java</p> <p>org/bouncycastle/math/field/GenericPolynomialExtensionField.java</p> <p>org/bouncycastle/crypto/CryptoServicesPermission.java</p> <p>org/bouncycastle/crypto/ec/ECPair.java</p> <p>org/bouncycastle/crypto/params/DHKeyParameters.java</p>

ISSUE	SEVERITY	STANDARDS	FILES
<p>This App uses Java Hash Code. It's a weak hash function and should never be used in Secure Crypto Implementation.</p>	<p>warning</p>	<p><b>CVSS V2: 2.3 (low)</b>  <b>CWE:</b> CWE-327 - Use of a Broken or Risky Cryptographic Algorithm  <b>OWASP MASVS:</b> MSTG-CRYPTO-4</p>	<p>org/bouncycastle/crypto/params/DSAParameters.java  org/bouncycastle/crypto/params/ElGamalPublicKeyParameters.java  org/bouncycastle/crypto/params/CramerShoupParameters.java  org/bouncycastle/crypto/params/DHParameters.java  org/bouncycastle/crypto/params/ElGamalKeyParameters.java  org/bouncycastle/crypto/params/CramerShoupKeyParameters.java  org/bouncycastle/crypto/params/DHPublicKeyParameters.java  org/bouncycastle/crypto/params/ECDomainParameters.java  org/bouncycastle/crypto/params/CramerShoupPrivateKeyParameters.java  org/bouncycastle/crypto/params/DHPrivateKeyParameters.java  org/bouncycastle/crypto/params/ElGamalPrivateKeyParameters.java  org/bouncycastle/crypto/params/CramerShoupPublicKeyParameters.java  org/bouncycastle/crypto/params/GOST3410Parameters.java  org/bouncycastle/crypto/params/ElGamalParameters.java  org/bouncycastle/jcajce/provider/asymmetric/x509/X509CRLEntryObject.java  org/bouncycastle/jcajce/provider/asymmetric/x509/X509CertificateObject.java  org/bouncycastle/jcajce/provider/asymmetric/x509/X509CRLObject.java  org/bouncycastle/jcajce/provider/asymmetric/ec/BCECPrivateKey.java  org/bouncycastle/jcajce/provider/asymmetric/ec/BCECPublicKey.java  org/bouncycastle/jcajce/provider/asymmetric/dh/BCDHPublicKey.java  org/bouncycastle/jcajce/provider/asymmetric/dh/BCDHPrivateKey.java  org/bouncycastle/jcajce/provider/asymmetric/dstu/BCDSTU4145PrivateKey.java  org/bouncycastle/jcajce/provider/asymmetric/dstu/BCDSTU4145PublicKey.java  org/bouncycastle/jcajce/provider/asymmetric/ecgost12/BCECGOST3410_2012PrivateKey.java  org/bouncycastle/jcajce/provider/asymmetric/ecgost12/BCECGOST3410_2012PublicKey.java  org/bouncycastle/jcajce/provider/asymmetric/dsa/BCDSAPrivateKey.java  org/bouncycastle/jcajce/provider/asymmetric/dsa/BCDSAPublicKey.java  org/bouncycastle/jcajce/provider/asymmetric/elgamal/BCElGamalPublicKey.java  org/bouncycastle/jcajce/provider/asymmetric/elgamal/BCElGamalPrivateKey.java  org/bouncycastle/jcajce/provider/asymmetric/rsa/BCRSAPrivateKey.java  org/bouncycastle/jcajce/provider/asymmetric/rsa/BCRSAPrivateCrtKey.java  org/bouncycastle/jcajce/provider/asymmetric/rsa/BCRSAPublicKey.java</p>



ISSUE	SEVERITY	STANDARDS	FILES
			<p>org/bouncycastle/jcajce/provider/asymmetric/gost/BCGOST3410PublicKey.java</p> <p>org/bouncycastle/jcajce/provider/asymmetric/gost/BCGOST3410PrivateKey.java</p> <p>org/bouncycastle/jcajce/provider/asymmetric/ecgost/BCECGOST3410PublicKey.java</p> <p>org/bouncycastle/jcajce/provider/asymmetric/ecgost/BCECGOST3410PrivateKey.java</p> <p>org/bouncycastle/jcajce/provider/config/ProviderConfigurationPermission.java</p> <p>org/bouncycastle/jcajce/spec/DSTU4145ParameterSpec.java</p> <p>org/bouncycastle/jcajce/util/AnnotatedPrivateKey.java</p> <p>org/bouncycastle/util/Objects.java</p> <p>org/bouncycastle/util/io/pem/PemHeader.java</p> <p>org/bouncycastle/jce/X509LDAPCertStoreParameters.java</p> <p>org/bouncycastle/jce/provider/JCERSAPublicKey.java</p> <p>org/bouncycastle/jce/provider/JCERSAPrivateCrtKey.java</p> <p>org/bouncycastle/jce/provider/X509CRLEntryObject.java</p> <p>org/bouncycastle/jce/provider/PKIXNameConstraintValidator.java</p> <p>org/bouncycastle/jce/provider/JCECPublicKey.java</p> <p>org/bouncycastle/jce/provider/JCERSAPrivateKey.java</p> <p>org/bouncycastle/jce/provider/JCECPriateKey.java</p> <p>org/bouncycastle/jce/provider/JDKDSAPublicKey.java</p> <p>org/bouncycastle/jce/provider/X509CRLObject.java</p> <p>org/bouncycastle/jce/provider/JDKDSAPrivateKey.java</p> <p>org/bouncycastle/jce/spec/GOST3410PublicKeyParameterSetSpec.java</p> <p>org/bouncycastle/jce/spec/ECPParameterSpec.java</p> <p>org/bouncycastle/jce/spec/GOST3410ParameterSpec.java</p> <p>uk/nhs/nhsx/sonar/android/app/registration/DeviceConfirmation.java</p> <p>uk/nhs/nhsx/sonar/android/app/registration/Registration.java</p> <p>uk/nhs/nhsx/sonar/android/app/contactevents/ContactEvent.java</p> <p>uk/nhs/nhsx/sonar/android/app/ble/Scanner.java</p> <p>uk/nhs/nhsx/sonar/android/app/ble/Identifier.java</p> <p>uk/nhs/nhsx/sonar/android/app/ble/ConnectedDevice.java</p> <p>uk/nhs/nhsx/sonar/android/app/diagnose/StateResult.java</p> <p>uk/nhs/nhsx/sonar/android/app/diagnose/review/CoLocationEvent.java</p> <p>uk/nhs/nhsx/sonar/android/app/diagnose/review/CoLocationData.java</p> <p>uk/nhs/nhsx/sonar/android/app/status/AmberState.java</p>

ISSUE	SEVERITY	STANDARDS	uk/nhs/nhsx/sonar/android/app/status/Re files.java uk/nhs/nhsx/sonar/android/app/status/Us erStateSerialization.java uk/nhs/nhsx/sonar/android/app/status/Ch eckinState.java uk/nhs/nhsx/sonar/android/app/analytics/ AnalyticEvent.java uk/nhs/nhsx/sonar/android/app/notificati ons/Acknowledgment.java uk/nhs/nhsx/sonar/android/app/crypto/Bl uetoothIdentifier.java uk/nhs/nhsx/sonar/android/app/reference code/ReferenceCode.java uk/nhs/nhsx/sonar/android/app/reference code/ReferenceCodeViewModel.java uk/nhs/nhsx/sonar/android/app/util/NonE mptySet.java uk/nhs/nhsx/sonar/android/app/http/Pro mise.java io/reactivex/Notification.java io/reactivex/internal/functions/ObjectHelp er.java io/reactivex/internal/util/OpenHashSet.jav a io/reactivex/internal/util/VolatileSizeArray List.java io/reactivex/internal/util/NotificationLite.ja va io/reactivex/schedulers/Timed.java com/polidea/rxandroidble2/internal/RxBle DeviceImpl.java com/polidea/rxandroidble2/internal/cache /DeviceComponentWeakReference.java com/polidea/rxandroidble2/internal/cache /CacheEntry.java com/polidea/rxandroidble2/internal/util/B yteAssociation.java com/polidea/rxandroidble2/internal/util/C haracteristicChangedEvent.java com/microsoft/appcenter/analytics/ingesti on/models/LogWithNameAndProperties.ja va com/microsoft/appcenter/analytics/ingesti on/models/EventLog.java com/microsoft/appcenter/ingestion/model s/CustomPropertiesLog.java com/microsoft/appcenter/ingestion/model s/Device.java com/microsoft/appcenter/ingestion/model s/LogWithProperties.java com/microsoft/appcenter/ingestion/model s/LogContainer.java com/microsoft/appcenter/ingestion/model s/AbstractLog.java com/microsoft/appcenter/ingestion/model s/StartServiceLog.java com/microsoft/appcenter/ingestion/model s/WrapperSdk.java com/microsoft/appcenter/ingestion/model s/one/DeviceExtension.java com/microsoft/appcenter/ingestion/model s/one/CommonSchemaLog.java com/microsoft/appcenter/ingestion/model s/one/Data.java

ISSUE	SEVERITY	STANDARDS	FILES
			com/microsoft/appcenter/ingestion/models/one/Extensions.java com/microsoft/appcenter/ingestion/models/one/AppExtension.java com/microsoft/appcenter/ingestion/models/one/NetExtension.java com/microsoft/appcenter/ingestion/models/one/OsExtension.java com/microsoft/appcenter/ingestion/models/one/MetadataExtension.java com/microsoft/appcenter/ingestion/models/one/LocExtension.java com/microsoft/appcenter/ingestion/models/one/SdkExtension.java com/microsoft/appcenter/ingestion/models/one/ProtocolExtension.java com/microsoft/appcenter/ingestion/models/one/UserExtension.java com/microsoft/appcenter/ingestion/models/properties/BooleanTypedProperty.java com/microsoft/appcenter/ingestion/models/properties/LongTypedProperty.java com/microsoft/appcenter/ingestion/models/properties/TypedProperty.java com/microsoft/appcenter/ingestion/models/properties/DoubleTypedProperty.java com/microsoft/appcenter/ingestion/models/properties/StringTypedProperty.java com/microsoft/appcenter/ingestion/models/properties/DateTimeTypedProperty.java com/microsoft/appcenter/http/HttpException.java com/microsoft/appcenter/http/HttpResponse.java kotlinx.coroutines/CoroutineContextKt.java kotlinx.coroutines/CoroutineName.java kotlinx.coroutines/DebugKt.java kotlinx.coroutines/JobCancellationException.java kotlinx.coroutines/channels/ValueOrClosed.java kotlinx.coroutines/internal/ThreadLocalKey.java
			org/joda/time/tz/DateTimeZoneBuilder.java org/bouncycastle/LICENSE.java org/bouncycastle/asn1/util/Dump.java org/bouncycastle/pqc/math/linearalgebra/IntegerFunctions.java org/bouncycastle/pqc/math/linearalgebra/PolynomialRingGF2.java org/bouncycastle/pqc/crypto/gmss/GMSSPrivateKeyParameters.java org/bouncycastle/pqc/crypto/gmss/GMSSRootCalc.java org/bouncycastle/pqc/crypto/gmss/GMSSSigner.java org/bouncycastle/pqc/crypto/gmss/GMSSKeyPairGenerator.java org/bouncycastle/pqc/crypto/gmss/util/GMSSUtil.java org/bouncycastle/pqc/crypto/xmss/XMSSUtil.java

ISSUE	SEVERITY	STANDARDS	FILES
			<p>org/bouncycastle/math/ec/tools/TraceOpti mizer.java</p> <p>org/bouncycastle/math/ec/tools/F2mSqrt Optimizer.java</p> <p>org/bouncycastle/math/ec/tools/DiscoverE ndomorphisms.java</p> <p>org/bouncycastle/crypto/examples/DESEx ample.java</p> <p>org/bouncycastle/crypto/examples/JPAKEE xample.java</p> <p>org/bouncycastle/crypto/generators/Nacca cheSternKeyPairGenerator.java</p> <p>org/bouncycastle/crypto/engines/Naccach eSternEngine.java</p> <p>org/bouncycastle/jcajce/provider/keystore /pkcs12/PKCS12KeyStoreSpi.java</p> <p>org/bouncycastle/jce/provider/BrokenJCEB lockCipher.java</p> <p>me/zhanghai/android/materialprogressbar /MaterialProgressBar.java</p> <p>me/zhanghai/android/materialprogressbar /BaseProgressLayerDrawable.java</p> <p>timber/log/Timber.java</p> <p>net/danlew/android/joda/TimeZoneChang edReceiver.java</p> <p>net/danlew/android/joda/ResUtils.java</p> <p>com/polidea/rxandroidble2/RxBleClientIm pl.java</p> <p>com/polidea/rxandroidble2/RxBleClient.ja va</p> <p>com/polidea/rxandroidble2/RxBleAdapter StateObservable.java</p> <p>com/polidea/rxandroidble2/internal/Queu eOperation.java</p> <p>com/polidea/rxandroidble2/internal/scan/ ScanSettingsEmulator.java</p> <p>com/polidea/rxandroidble2/internal/scan/ BackgroundScannerImpl.java</p> <p>com/polidea/rxandroidble2/internal/scan/ InternalScanResultCreator.java</p> <p>com/polidea/rxandroidble2/internal/scan/ ScanSetupBuilderImplApi23.java</p> <p>com/polidea/rxandroidble2/internal/conn ection/DisconnectionRouter.java</p> <p>com/polidea/rxandroidble2/internal/conn ection/LoggingIllegalOperationHandler.jav a</p> <p>com/polidea/rxandroidble2/internal/opera tions/CharacteristicLongWriteOperation.ja va</p> <p>com/polidea/rxandroidble2/internal/opera tions/LegacyScanOperation.java</p> <p>com/polidea/rxandroidble2/internal/opera tions/ScanOperationApi21.java</p> <p>com/polidea/rxandroidble2/internal/opera tions/ScanOperationApi18.java</p> <p>com/polidea/rxandroidble2/internal/opera tions/ScanOperation.java</p> <p>com/polidea/rxandroidble2/internal/opera tions/DisconnectOperation.java</p> <p>com/polidea/rxandroidble2/internal/serial ization/QueueSemaphore.java</p> <p>com/polidea/rxandroidble2/internal/serial ization/ClientOperationQueueImpl.java</p> <p>com/polidea/rxandroidble2/internal/serial</p>

ISSUE	SEVERITY	CVSS V2: 7.5 (high) STANDARDS	FILES
<p>Issue logs information. Sensitive information should never be logged.</p>	<p>info</p>	<p>CWE: CWE-532 - Insertion of Sensitive Information into Log File</p> <p>OWASP MASVS: MSTG-STORAGE-3</p>	<p>ization/ConnectionOperationQueueImpl.java</p> <p>com/polidea/rxandroidble2/internal/logger/LoggerUtil.java</p> <p>com/polidea/rxandroidble2/internal/logger/LoggerUtilBluetoothServices.java</p> <p>com/polidea/rxandroidble2/internal/util/RxBleAdapterWrapper.java</p> <p>com/polidea/rxandroidble2/internal/util/BleConnectionCompat.java</p> <p>com/polidea/rxandroidble2/internal/util/CheckerLocationProvider.java</p> <p>com/polidea/rxandroidble2/internal/util/UUIDUtil.java</p> <p>com/polidea/rxandroidble2/internal/util/CharacteristicPropertiesParser.java</p> <p>com/polidea/rxandroidble2/helpers/ValueInterpreter.java</p> <p>com/microsoft/appcenter/CustomProperties.java</p> <p>com/microsoft/appcenter/AppCenter.java</p> <p>com/microsoft/appcenter/UncaughtExceptionHandler.java</p> <p>com/microsoft/appcenter/Constants.java</p> <p>com/microsoft/appcenter/Flags.java</p> <p>com/microsoft/appcenter/AbstractAppCenterService.java</p> <p>com/microsoft/appcenter/ServiceInstrumentationUtils.java</p> <p>com/microsoft/appcenter/Utils/AppCenterLog.java</p> <p>com/microsoft/appcenter/Utils/AsyncTaskUtils.java</p> <p>com/microsoft/appcenter/Utils/DeviceInfoHelper.java</p> <p>com/microsoft/appcenter/Utils/IdHelper.java</p> <p>com/microsoft/appcenter/Utils/NetworkStateHelper.java</p> <p>com/microsoft/appcenter/Utils/storage/FileManager.java</p> <p>com/microsoft/appcenter/Utils/storage/DatabaseManager.java</p> <p>com/microsoft/appcenter/Utils/crypto/CryptoUtils.java</p> <p>com/microsoft/appcenter/Utils/context/UserIdContext.java</p> <p>com/microsoft/appcenter/Utils/context/SessionContext.java</p> <p>com/microsoft/appcenter/persistence/DatabasePersistence.java</p> <p>com/microsoft/appcenter/channel/DefaultChannel.java</p> <p>com/microsoft/appcenter/channel/OneCollectorChannelListener.java</p> <p>com/microsoft/appcenter/analytics/AuthenticationProvider.java</p> <p>com/microsoft/appcenter/analytics/EventProperties.java</p> <p>com/microsoft/appcenter/analytics/Analytics.java</p> <p>com/microsoft/appcenter/analytics/AnalyticsTransmissionTarget.java</p> <p>com/microsoft/appcenter/analytics/channel/AnalyticsValidator.java</p>

ISSUE	SEVERITY	STANDARDS	com/microsoft/appcenter/analytics/chann EESionTracker.java com/microsoft/appcenter/analytics/ingesti on/models/EventLog.java com/microsoft/appcenter/analytics/ingesti on/models/json/EventLogFactory.java com/microsoft/appcenter/ingestion/OneC ollectorIngestion.java com/microsoft/appcenter/ingestion/model s/AbstractLog.java com/microsoft/appcenter/ingestion/model s/one/CommonSchemaDataUtils.java com/microsoft/appcenter/ingestion/model s/one/CommonSchemaLog.java com/microsoft/appcenter/ingestion/model s/one/PartAUtils.java com/microsoft/appcenter/http/HttpClientR etryer.java com/microsoft/appcenter/http/DefaultHtt pClientCallTask.java com/microsoft/appcenter/http/HttpClient NetworkStateHandler.java com/microsoft/appcenter/http/AbstractAp pCallTemplate.java com/microsoft/appcenter/http/DefaultHtt pClient.java
			org/bouncycastle/x509/CertPathValidator Utilities.java org/bouncycastle/x509/PKIXCertPathRevie wer.java org/bouncycastle/asn1/x509/KeyPurposel d.java org/bouncycastle/asn1/x509/X509Extensi ons.java org/bouncycastle/asn1/x509/X509Name.ja va org/bouncycastle/asn1/x509/PolicyQualifi erId.java org/bouncycastle/asn1/x509/X509Attribut elIdentifiers.java org/bouncycastle/asn1/x509/AccessDescri ption.java org/bouncycastle/asn1/x509/X509ObjectI dentifiers.java org/bouncycastle/asn1/x509/Extension.jav a org/bouncycastle/asn1/x509/X509Extensi on.java org/bouncycastle/asn1/x509/qualified/ETS IQObjectIdentifiers.java org/bouncycastle/asn1/x509/qualified/RFC 3739QObjectIdentifiers.java org/bouncycastle/asn1/x509/sigi/SigIObj ectIdentifiers.java org/bouncycastle/asn1/rosstandart/Rossta ndartObjectIdentifiers.java org/bouncycastle/asn1/dvcs/DVCSObjectI dentifiers.java org/bouncycastle/asn1/smime/SMIMECap ability.java org/bouncycastle/asn1/smime/SMIMECap abilities.java org/bouncycastle/asn1/bsi/BSIObjectIdenti fiers.java org/bouncycastle/asn1/eac/CertificateHold

ISSUE	SEVERITY	STANDARDS	erAuthorization.java File: org.bouncycastle/asn1/eac/EACObjectIdentifiers.java org/bouncycastle/asn1/pkcs/PKCSObjectIdentifiers.java org/bouncycastle/asn1/iana/IANAObjectIdentifiers.java org/bouncycastle/asn1/isismtt/ISISMTTObjectIdentifiers.java org/bouncycastle/asn1/teletrust/TeleTrustObjectIdentifiers.java org/bouncycastle/asn1/nist/NISTObjectIdentifiers.java org/bouncycastle/asn1/cmc/CMCObjectIdentifiers.java org/bouncycastle/asn1/ntt/NTTObjectIdentifiers.java org/bouncycastle/asn1/x9/X9ObjectIdentifiers.java org/bouncycastle/asn1/cmp/CMPObjectIdentifiers.java org/bouncycastle/asn1/bc/BCObjectIdentifiers.java org/bouncycastle/asn1/crmf/CRMFObjectIdentifiers.java org/bouncycastle/asn1/anssi/ANSSIObjectIdentifiers.java org/bouncycastle/asn1/sec/SECObjectIdentifiers.java org/bouncycastle/asn1/x500/style/RFC4519Style.java org/bouncycastle/asn1/x500/style/BCStyle.java org/bouncycastle/asn1/cms/CMSObjectIdentifiers.java org/bouncycastle/asn1/ocsp/OCSPObjectIdentifiers.java org/bouncycastle/asn1/misc/MiscObjectIdentifiers.java org/bouncycastle/asn1/nsri/NSRIObjectIdentifiers.java org/bouncycastle/asn1/gm/GMObjectIdentifiers.java org/bouncycastle/asn1/kisa/KISAObjectIdentifiers.java org/bouncycastle/asn1/cryptopro/CryptoProObjectIdentifiers.java org/bouncycastle/asn1/cryptlib/CryptlibObjectIdentifiers.java org/bouncycastle/asn1/ua/UAOBJECTIdentifiers.java org/bouncycastle/asn1/gnu/GNUObjectIdentifiers.java org/bouncycastle/asn1/oiw/OIWObjectIdentifiers.java org/bouncycastle/asn1/microsoft/MicrosoftObjectIdentifiers.java org/bouncycastle/asn1/tsp/EvidenceRecord.java org/bouncycastle/pqc/asn1/PQCObjectIdentifiers.java org/bouncycastle/pqc/crypto/mceliece/McEliecePointchevalCipher.java org/bouncycastle/pqc/crypto/mceliece/McElieceCipher.java
IP Address disclosure	warning	CVSS V2: 4.3 (medium) CWE: CWE-200 - Exposure of Sensitive Information to an Unauthorized Actor OWASP MASVS: MSTG-CODE-2	

ISSUE	SEVERITY	STANDARDS	<p>org/bouncycastle/pqc/crypto/mceliece/McElieceCCA2KeyPairGenerator.java</p> <p>org/bouncycastle/pqc/crypto/mceliece/McElieceKobaraImaiCipher.java</p> <p>org/bouncycastle/pqc/crypto/mceliece/McElieceFujisakiCipher.java</p> <p>org/bouncycastle/pqc/crypto/mceliece/McElieceKeyPairGenerator.java</p> <p>org/bouncycastle/pqc/crypto/gmss/GMSSKeyPairGenerator.java</p> <p>org/bouncycastle/pqc/jcajce/provider/mceliece/McElieceKeyFactorySpi.java</p> <p>org/bouncycastle/pqc/jcajce/provider/mceliece/McElieceCCA2KeyFactorySpi.java</p> <p>org/bouncycastle/crypto/util/AlgorithmIdentifierFactory.java</p> <p>org/bouncycastle/jcajce/provider/symmetric/DESede.java</p> <p>org/bouncycastle/jcajce/provider/symmetric/CAST5.java</p> <p>org/bouncycastle/jcajce/provider/symmetric/RC2.java</p> <p>org/bouncycastle/jcajce/provider/symmetric/IDEA.java</p> <p>org/bouncycastle/jcajce/provider/symmetric/ARC4.java</p> <p>org/bouncycastle/jcajce/provider/symmetric/AES.java</p> <p>org/bouncycastle/jcajce/provider/asymmetric/EC.java</p> <p>org/bouncycastle/jcajce/provider/asymmetric/DSA.java</p> <p>org/bouncycastle/jcajce/provider/asymmetric/x509/X509CertificateImpl.java</p> <p>org/bouncycastle/jcajce/provider/asymmetric/x509/X509CertificateObject.java</p> <p>org/bouncycastle/jcajce/provider/digest/SM3.java</p> <p>org/bouncycastle/jcajce/provider/keystore/pkcs12/PKCS12KeyStoreSpi.java</p> <p>org/bouncycastle/jce/PKCS10CertificationRequest.java</p> <p>org/bouncycastle/jce/provider/RFC3280CertPathUtilities.java</p> <p>org/bouncycastle/jce/provider/CertPathValidatorUtilities.java</p> <p>org/bouncycastle/jce/provider/X509CertificateObject.java</p>



ISSUE	SEVERITY	STANDARDS	FILES
The App uses an insecure Random Number Generator.	high	<b>CVSS V2: 7.5 (high)</b> <b>CWE: CWE-330</b> - Use of Insufficiently Random Values <b>OWASP Top 10: M5:</b> Insufficient Cryptography <b>OWASP MASVS:</b> MSTG-CRYPTO-6	org/bouncycastle/asn1/ua/DSTU4145PointEncoder.java org/bouncycastle/pqc/math/linearalgebra/GF2nPolynomialField.java org/bouncycastle/pqc/math/linearalgebra/GF2nPolynomialElement.java org/bouncycastle/pqc/math/linearalgebra/GF2nONBField.java org/bouncycastle/pqc/math/linearalgebra/GF2Polynomial.java org/bouncycastle/math/ec/ECFieldElement.java org/bouncycastle/math/ec/ECCurve.java org/bouncycastle/math/raw/Mod.java com/microsoft/appcenter/http/HttpClientRetrier.java kotlinx/coroutines/scheduling/CoroutineScheduler.java
Files may contain hardcoded sensitive informations like usernames, passwords, keys etc.	high	<b>CVSS V2: 7.4 (high)</b> <b>CWE: CWE-312</b> - Cleartext Storage of Sensitive Information <b>OWASP Top 10: M9:</b> Reverse Engineering <b>OWASP MASVS:</b> MSTG-STORAGE-14	org/bouncycastle/crypto/tls/ExporterLabel.java org/bouncycastle/jcajce/spec/TLSKeyMaterialSpec.java uk/nhs/nhsx/sonar/android/app/BuildConfig.java uk/nhs/nhsx/sonar/android/app/registration/ActivationCodeProvider.java uk/nhs/nhsx/sonar/android/app/registration/SonarIdProvider.java uk/nhs/nhsx/sonar/android/app/onboarding/PostCodeProvider.java uk/nhs/nhsx/sonar/android/app/onboarding/OnboardingStatusProvider.java uk/nhs/nhsx/sonar/android/app/notifications/NotificationHandler.java uk/nhs/nhsx/sonar/android/app/referencecode/ReferenceCodeProvider.java uk/nhs/nhsx/sonar/android/app/http/KeyStorageKt.java io/reactivex/internal/schedulers/SchedulerPoolFactory.java com/microsoft/appcenter/AppCenter.java com/microsoft/appcenter/Constants.java com/microsoft/appcenter/utils/storage/DatabaseManager.java com/microsoft/appcenter/utils/context/SessionContext.java com/microsoft/appcenter/persistence/DatabasePersistence.java com/microsoft/appcenter/channel/DefaultChannel.java com/microsoft/appcenter/ingestion/OneCollectorIngestion.java com/microsoft/appcenter/ingestion/models/WrapperSdk.java com/microsoft/appcenter/ingestion/models/one/CommonSchemaLog.java com/microsoft/appcenter/http/DefaultHttpClient.java

ISSUE	SEVERITY	STANDARDS	FILES
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	<b>CVSS V2: 5.9 (medium)</b> <b>CWE:</b> CWE-89 - Improper Neutralization of Special Elements used in an SQL Command ('SQL Injection') <b>OWASP Top 10:</b> M7: Client Code Quality	com/microsoft/appcenter/utils/storage/SQ LiteUtils.java com/microsoft/appcenter/persistence/Dat abasePersistence.java
This App uses SQL Cipher. But the secret may be hardcoded.	warning	<b>CVSS V2: 0 (info)</b> <b>OWASP MASVS:</b> MSTG-CRYPTO-1	com/microsoft/appcenter/utils/storage/Da tabaseManager.java

## DOMAIN MALWARE CHECK

DOMAIN	STATUS	GEOLOCATION
www.gov.uk	good	<b>IP:</b> 151.101.16.144 <b>Country:</b> United States of America <b>Region:</b> California <b>City:</b> San Francisco <b>Latitude:</b> 37.7757 <b>Longitude:</b> -122.395203 <b>View:</b> <a href="#">Google Map</a>
www.nhs.uk	good	<b>IP:</b> 104.89.75.190 <b>Country:</b> United States of America <b>Region:</b> Virginia <b>City:</b> Ashburn <b>Latitude:</b> 39.04372 <b>Longitude:</b> -77.487488 <b>View:</b> <a href="#">Google Map</a>
covid19.nhs.uk	good	<b>IP:</b> 99.86.116.58 <b>Country:</b> United Kingdom of Great Britain and Northern Ireland <b>Region:</b> England <b>City:</b> London <b>Latitude:</b> 51.50853 <b>Longitude:</b> -0.12574 <b>View:</b> <a href="#">Google Map</a>
android.googleusercontent.com	good	<b>IP:</b> 66.102.1.82 <b>Country:</b> United States of America <b>Region:</b> California <b>City:</b> Mountain View <b>Latitude:</b> 37.405991 <b>Longitude:</b> -122.078514 <b>View:</b> <a href="#">Google Map</a>

DOMAIN	STATUS	GEOLOCATION
111.nhs.uk	good	<b>IP:</b> 104.89.75.190 <b>Country:</b> United States of America <b>Region:</b> Virginia <b>City:</b> Ashburn <b>Latitude:</b> 39.04372 <b>Longitude:</b> -77.487488 <b>View:</b> <a href="#">Google Map</a>
mobile.events.data.microsoft.com	good	<b>IP:</b> 52.114.159.112 <b>Country:</b> United States of America <b>Region:</b> California <b>City:</b> San Francisco <b>Latitude:</b> 37.774929 <b>Longitude:</b> -122.419418 <b>View:</b> <a href="#">Google Map</a>
nhsx-sonar-prod.firebaseio.com	good	<b>IP:</b> 35.201.97.85 <b>Country:</b> United States of America <b>Region:</b> California <b>City:</b> Mountain View <b>Latitude:</b> 37.405991 <b>Longitude:</b> -122.078514 <b>View:</b> <a href="#">Google Map</a>
github.com	good	<b>IP:</b> 140.82.118.4 <b>Country:</b> United States of America <b>Region:</b> California <b>City:</b> San Francisco <b>Latitude:</b> 37.7757 <b>Longitude:</b> -122.395203 <b>View:</b> <a href="#">Google Map</a>
www.bouncycastle.org	good	<b>IP:</b> 203.32.61.103 <b>Country:</b> Australia <b>Region:</b> Victoria <b>City:</b> Fitzroy <b>Latitude:</b> -37.798389 <b>Longitude:</b> 144.978333 <b>View:</b> <a href="#">Google Map</a>
in.appcenter.ms	good	<b>IP:</b> 52.232.216.86 <b>Country:</b> United States of America <b>Region:</b> Virginia <b>City:</b> Boydton <b>Latitude:</b> 36.667641 <b>Longitude:</b> -78.387497 <b>View:</b> <a href="#">Google Map</a>
api.svc-covid19.nhs.uk	good	<b>IP:</b> 104.17.200.74 <b>Country:</b> United States of America <b>Region:</b> California <b>City:</b> San Francisco <b>Latitude:</b> 37.7757 <b>Longitude:</b> -122.395203 <b>View:</b> <a href="#">Google Map</a>

URL	FILE
<a href="http://www.bouncycastle.org">http://www.bouncycastle.org</a>	org/bouncycastle/LICENCE.java
<a href="http://www.bouncycastle.org">www.bouncycastle.org</a>	org/bouncycastle/crypto/examples/DESEExample.java
<a href="https://api.svc-covid19.nhs.uk">https://api.svc-covid19.nhs.uk</a>	uk/nhs/nhsx/sonar/android/app/BuildConfig.java
<a href="https://www.gov.uk/coronavirus">https://www.gov.uk/coronavirus</a> <a href="https://www.gov.uk/government/publications/full-guidance-on-staying-at-home-and-away-from-others/full-guidance-on-staying-at-home-and-away-from-others">https://www.gov.uk/government/publications/full-guidance-on-staying-at-home-and-away-from-others/full-guidance-on-staying-at-home-and-away-from-others</a> <a href="https://www.gov.uk/government/publications/covid-19-stay-at-home-guidance/stay-at-home-guidance-for-households-with-possible-coronavirus-covid-19-infection">https://www.gov.uk/government/publications/covid-19-stay-at-home-guidance/stay-at-home-guidance-for-households-with-possible-coronavirus-covid-19-infection</a> <a href="https://www.nhs.uk/conditions/coronavirus-covid-19">https://www.nhs.uk/conditions/coronavirus-covid-19</a> <a href="http://covid19.nhs.uk/">http://covid19.nhs.uk/</a> <a href="https://www.gov.uk/coronavirus?utm_source=nhs covid19 android&amp;utm_medium=mobile app&amp;utm_campaign=nhs covid19 app&amp;utm_content=notified">https://www.gov.uk/coronavirus?</a> <a href="https://www.gov.uk/government/publications/full-guidance-on-staying-at-home-and-away-from-others/full-guidance-on-staying-at-home-and-away-from-others?utm_source=nhs covid19 android&amp;utm_medium=mobile app&amp;utm_campaign=nhs covid19 app&amp;utm_content=general">https://www.gov.uk/government/publications/full-guidance-on-staying-at-home-and-away-from-others/full-guidance-on-staying-at-home-and-away-from-others?utm_source=nhs covid19 android&amp;utm_medium=mobile app&amp;utm_campaign=nhs covid19 app&amp;utm_content=general</a> <a href="https://www.gov.uk/government/publications/covid-19-stay-at-home-guidance/stay-at-home-guidance-for-households-with-possible-coronavirus-covid-19-infection?utm_source=nhs covid19 android&amp;utm_medium=mobile app&amp;utm_campaign=nhs covid19 app&amp;utm_content=symptoms#main-messages">https://www.gov.uk/government/publications/covid-19-stay-at-home-guidance/stay-at-home-guidance-for-households-with-possible-coronavirus-covid-19-infection?utm_source=nhs covid19 android&amp;utm_medium=mobile app&amp;utm_campaign=nhs covid19 app&amp;utm_content=symptoms#main-messages</a> <a href="https://covid19.nhs.uk/privacy-and-data.html">https://covid19.nhs.uk/privacy-and-data.html</a> <a href="https://www.nhs.uk/conditions/coronavirus-covid-19?utm_source=nhs covid19 android&amp;utm_medium=mobile app&amp;utm_campaign=nhs covid19 app&amp;utm_content=notified">https://www.nhs.uk/conditions/coronavirus-covid-19?utm_source=nhs covid19 android&amp;utm_medium=mobile app&amp;utm_campaign=nhs covid19 app&amp;utm_content=notified</a> <a href="https://www.nhs.uk/conditions/coronavirus-covid-19?utm_source=nhs covid19 android&amp;utm_medium=mobile app&amp;utm_campaign=nhs covid19 app&amp;utm_content=general">https://www.nhs.uk/conditions/coronavirus-covid-19?utm_source=nhs covid19 android&amp;utm_medium=mobile app&amp;utm_campaign=nhs covid19 app&amp;utm_content=general</a> <a href="https://www.nhs.uk/conditions/coronavirus-covid-19?utm_source=nhs covid19 android&amp;utm_medium=mobile app&amp;utm_campaign=nhs covid19 app&amp;utm_content=symptoms">https://www.nhs.uk/conditions/coronavirus-covid-19?utm_source=nhs covid19 android&amp;utm_medium=mobile app&amp;utm_campaign=nhs covid19 app&amp;utm_content=symptoms</a> <a href="https://111.nhs.uk/covid-19/">https://111.nhs.uk/covid-19/</a> <a href="https://covid19.nhs.uk/our-policies.html">https://covid19.nhs.uk/our-policies.html</a>	uk/nhs/nhsx/sonar/android/app/util/BrowserUtilsKt.java
<a href="https://github.com/ReactiveX/RxJava/wiki/Plugins">https://github.com/ReactiveX/RxJava/wiki/Plugins</a>	io/reactivex/Observable.java
<a href="https://github.com/ReactiveX/RxJava/wiki/Plugins">https://github.com/ReactiveX/RxJava/wiki/Plugins</a>	io/reactivex/Flowable.java
<a href="https://github.com/ReactiveX/RxJava/wiki/Plugins">https://github.com/ReactiveX/RxJava/wiki/Plugins</a>	io/reactivex/Maybe.java
<a href="https://github.com/ReactiveX/RxJava/wiki/Plugins">https://github.com/ReactiveX/RxJava/wiki/Plugins</a>	io/reactivex/Single.java
<a href="https://github.com/ReactiveX/RxJava/wiki/Plugins">https://github.com/ReactiveX/RxJava/wiki/Plugins</a>	io/reactivex/Completable.java
<a href="https://github.com/ReactiveX/RxJava/wiki/What's-different-in-2.0#error-handling">https://github.com/ReactiveX/RxJava/wiki/What's-different-in-2.0#error-handling</a>	io/reactivex/exceptions/UndeliverableException.java

URL	FILE
<a href="https://github.com/ReactiveX/RxJava/wiki/Error-Handling">https://github.com/ReactiveX/RxJava/wiki/Error-Handling</a>	io/reactivex/exceptions/OnErrorNotImplementedException.java
<a href="https://github.com/Polidea/RxAndroidBle/tree/master/mockrxandroidble">https://github.com/Polidea/RxAndroidBle/tree/master/mockrxandroidble</a>	com/polidea/rxandroidble2/RxBleClientImpl.java
<a href="https://android.googlesource.com/platform/external/bluetooth/bluedroid/+android-5.1.0_r1/stack/include/gatt_api.h">https://android.googlesource.com/platform/external/bluetooth/bluedroid/+android-5.1.0_r1/stack/include/gatt_api.h</a>	com/polidea/rxandroidble2/exceptions/BleGattException.java
<a href="https://in.appcenter.ms">https://in.appcenter.ms</a>	com/microsoft/appcenter/ingestion/AppCenterIngestion.java
<a href="https://mobile.events.data.microsoft.com/OneCollector/1.0">https://mobile.events.data.microsoft.com/OneCollector/1.0</a>	com/microsoft/appcenter/ingestion/OneCollectorIngestion.java
<a href="https://nhsx-sonar-prod.firebaseio.com">https://nhsx-sonar-prod.firebaseio.com</a>	Android String Resource

## FIREBASE DATABASES

FIREBASE URL	DETAILS
<a href="https://nhsx-sonar-prod.firebaseio.com">https://nhsx-sonar-prod.firebaseio.com</a>	<a href="#">info</a> App talks to a Firebase Database.

## TRACKERS

TRACKER	URL
Google Firebase Analytics	<a href="https://reports.exodus-privacy.eu.org/trackers/49">https://reports.exodus-privacy.eu.org/trackers/49</a>
Microsoft Appcenter Analytics	<a href="https://reports.exodus-privacy.eu.org/trackers/243">https://reports.exodus-privacy.eu.org/trackers/243</a>

## PLAYSTORE INFORMATION

**Title:** NHS COVID-19 – Isle of Wight residents only

**Score:** None **Installs:** 10,000+ **Price:** 0 **Android Version Support:** Varies with device **Category:** Medical **Play Store URL:** [uk.nhs.nhsx.colocate](https://play.google.com/store/apps/details?id=uk.nhs.nhsx.colocate)

**Developer Details:** NHSX, NHSX, None, None, NHSCovid-19AppStoreSupport@nhsbsa.nhs.uk,

**Release Date:** None **Privacy Policy:** [Privacy link](#)

**Description:**

This is the first version of the app, currently available for Isle of Wight residents only. If you develop symptoms of coronavirus and report them in the app, the NHS COVID-19 app will anonymously warn those that you have been near to. They will receive advice from the NHS on the right action to take to stop the virus spreading further. This means that people can be quickly encouraged to self-isolate before they become infectious, allowing the country to stay one step ahead of the virus.

**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

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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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