

ANDROID STATIC ANALYSIS REPORT



Notify2Jabber (0.85)

File Name:	installer296.apk
Package Name:	click.dummer.notify_to_jabber
Scan Date:	May 31, 2022, 2:09 p.m.
App Security Score:	53/100 (MEDIUM RISK)
Grade:	

FINDINGS SEVERITY

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

FILE INFORMATION

File Name: installer296.apk

Size: 1.61MB

MD5: 198ae0fb34856c319e477c2b9be80286

SHA1: 425cfd3bb8c3f0dc932f63ea29c8a5f47e52fb39

SHA256: 4d73a5b95df08a28a7507a29a61f2c9722e733ddc885b64903e54146dd45bdec

i APP INFORMATION

App Name: Notify2Jabber

Package Name: click.dummer.notify_to_jabber

Main Activity: click.dummer.notify_to_jabber.MainActivity

Target SDK: 22 Min SDK: 19 Max SDK:

Android Version Name: 0.85 Android Version Code: 85

EE APP COMPONENTS

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

Exported Activities: O Exported Services: 1 Exported Receivers: O Exported Providers: O



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

Found 1 unique certificates

Subject: C=UK, ST=ORG, L=ORG, O=fdroid.org, OU=FDroid, CN=FDroid

Signature Algorithm: rsassa_pkcs1v15 Valid From: 2019-01-13 14:41:55+00:00 Valid To: 2046-05-31 14:41:55+00:00

Issuer: C=UK, ST=ORG, L=ORG, O=fdroid.org, OU=FDroid, CN=FDroid

Serial Number: 0x39d74464 Hash Algorithm: sha256

md5: d8c4a415098c4802fbb87266555e36ed

sha1: 3dc44aa4a690be764beb3ea7a56643e60c418de7

sha256: 71853f1aa54da968d2e06e48752ea4d43676fde21d1628b5a29a018b86346d45

sha512: 7761cdd216d6831fb5d1095e7d10159a5ecef480208431e1e8b170d213f24325eb0d8a483920cdf389737b67551870da55f618ac5737c73ad57f7fed5badb429

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

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

⋮ APPLICATION PERMISSIONS

PERMISSION	STATUS	INFO	DESCRIPTION
android.permission.ACCESS_NETWORK_STATE	normal	view network status	Allows an application to view the status of all networks.
android.permission.INTERNET	normal	full Internet access	Allows an application to create network sockets.
android.permission.ACCESS_WIFI_STATE	normal	view Wi-Fi status	Allows an application to view the information about the status of Wi-Fi.
android.permission.SEND_SMS	dangerous	send SMS messages	Allows application to send SMS messages. Malicious applications may cost you money by sending messages without your confirmation.



FILE	DETAILS			
	FINDINGS	DETAILS		
classes.dex	Compiler	r8 without marker (suspicious)		

△ NETWORK SECURITY

NO	SCOPE	SEVERITY	DESCRIPTION
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Q MANIFEST ANALYSIS

NO	ISSUE	SEVERITY	DESCRIPTION
1	Application Data can be Backed up [android:allowBackup=true]	warning	This flag allows anyone to backup your application data via adb. It allows users who have enabled USB debugging to copy application data off of the device.
2	Service (click.dummer.notify_to_jabber.NotificationService) is Protected by a permission, but the protection level of the permission should be checked. Permission: android.permission.BIND_NOTIFICATION_LISTENER_SERVICE [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.

</> CODE ANALYSIS

NO	ISSUE	SEVERITY	STANDARDS	FILES
1	The App uses an insecure Random Number Generator.	warning	CWE: CWE-330: Use of Insufficiently Random Values OWASP Top 10: M5: Insufficient Cryptography OWASP MASVS: MSTG-CRYPTO-6	org/jivesoftware/smack/ReconnectionManager.j ava de/measite/minidns/Client.java org/jivesoftware/smack/util/StringUtils.java
2	IP Address disclosure	warning	CWE: CWE-200: Information Exposure OWASP MASVS: MSTG-CODE-2	de/measite/minidns/Client.java org/jivesoftware/smack/util/PacketParserUtils.ja va
3	SHA-1 is a weak hash known to have hash collisions.	warning	CWE: CWE-327: Use of a Broken or Risky Cryptographic Algorithm OWASP Top 10: M5: Insufficient Cryptography OWASP MASVS: MSTG-CRYPTO-4	de/measite/minidns/Client.java org/jivesoftware/smack/util/MAC.java org/jivesoftware/smack/util/SHA1.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	org/jivesoftware/smackx/debugger/android/An droidDebugger.java click/dummer/notify_to_jabber/NotificationServ ice.java org/jivesoftware/smack/roster/rosterstore/Dire ctoryRosterStore.java
5	Insecure Implementation of SSL. Trusting all the certificates or accepting self signed certificates is a critical Security Hole. This application is vulnerable to MITM attacks	high	CWE: CWE-295: Improper Certificate Validation OWASP Top 10: M3: Insecure Communication OWASP MASVS: MSTG-NETWORK-3	click/dummer/notify_to_jabber/SslHelper.java

NO	ISSUE	SEVERITY	STANDARDS	FILES
6	This App uses SSL certificate pinning to detect or prevent MITM attacks in secure communication channel.	secure	OWASP MASVS: MSTG-NETWORK-4	click/dummer/notify_to_jabber/SslHelper.java org/jivesoftware/smack/util/TLSUtils.java org/jivesoftware/smack/tcp/XMPPTCPConnectio n.java click/dummer/notify_to_jabber/NotificationServ ice.java
7	MD5 is a weak hash known to have hash collisions.	warning	CWE: CWE-327: Use of a Broken or Risky Cryptographic Algorithm OWASP Top 10: M5: Insufficient Cryptography OWASP MASVS: MSTG-CRYPTO-4	org/jivesoftware/smack/util/MD5.java

■ NIAP ANALYSIS v1.3

NO	IDENTIFIER	REQUIREMENT	FEATURE	DESCRIPTION
1	FCS_RBG_EXT.1.1	Security Functional Requirements	Random Bit Generation Services	The application invoke platform-provided DRBG functionality for its cryptographic operations.
2	FCS_STO_EXT.1.1	Security Functional Requirements	Storage of Credentials	The application does not store any credentials to non-volatile memory.
3	FCS_CKM_EXT.1.1	Security Functional Requirements	Cryptographic Key Generation Services	The application generate no asymmetric cryptographic keys.

NO	IDENTIFIER	REQUIREMENT	FEATURE	DESCRIPTION
4	FDP_DEC_EXT.1.1	Security Functional Requirements	Access to Platform Resources	The application has access to ['network connectivity'].
5	FDP_DEC_EXT.1.2	Security Functional Requirements	Access to Platform Resources	The application has access to no sensitive information repositories.
6	FDP_NET_EXT.1.1	Security Functional Requirements	Network Communications	The application has user/application initiated network communications.
7	FDP_DAR_EXT.1.1	Security Functional Requirements	Encryption Of Sensitive Application Data	The application implement functionality to encrypt sensitive data in non-volatile memory.
8	FMT_MEC_EXT.1.1	Security Functional Requirements	Supported Configuration Mechanism	The application invoke the mechanisms recommended by the platform vendor for storing and setting configuration options.
9	FTP_DIT_EXT.1.1	Security Functional Requirements	Protection of Data in Transit	The application does encrypt some transmitted data with HTTPS/TLS/SSH between itself and another trusted IT product.
10	FCS_RBG_EXT.2.1,FCS_RBG_EXT.2.2	Selection-Based Security Functional Requirements	Random Bit Generation from Application	The application perform all deterministic random bit generation (DRBG) services in accordance with NIST Special Publication 800-90A using Hash_DRBG. The deterministic RBG is seeded by an entropy source that accumulates entropy from a platform-based DRBG and a software-based noise source, with a minimum of 256 bits of entropy at least equal to the greatest security strength (according to NIST SP 800-57) of the keys and hashes that it will generate.
11	FCS_COP.1.1(2)	Selection-Based Security Functional Requirements	Cryptographic Operation - Hashing	The application perform cryptographic hashing services not in accordance with FCS_COP.1.1(2) and uses the cryptographic algorithm RC2/RC4/MD4/MD5.

NO	IDENTIFIER	REQUIREMENT	FEATURE	DESCRIPTION
12	FCS_HTTPS_EXT.1.1	Selection-Based Security Functional Requirements	HTTPS Protocol	The application implement the HTTPS protocol that complies with RFC 2818.
13	FCS_HTTPS_EXT.1.2	Selection-Based Security Functional Requirements	HTTPS Protocol	The application implement HTTPS using TLS.
14	FCS_HTTPS_EXT.1.3	Selection-Based Security Functional Requirements	HTTPS Protocol	The application notify the user and not establish the connection or request application authorization to establish the connection if the peer certificate is deemed invalid.
15	FIA_X509_EXT.1.1	Selection-Based Security Functional Requirements	X.509 Certificate Validation	The application invoked platform-provided functionality to validate certificates in accordance with the following rules: ['The certificate path must terminate with a trusted CA certificate'].
16	FIA_X509_EXT.2.1	Selection-Based Security Functional Requirements	X.509 Certificate Authentication	The application use X.509v3 certificates as defined by RFC 5280 to support authentication for HTTPS , TLS.

Q DOMAIN MALWARE CHECK

DOMAIN STA	ATUS GEOLOCATION	
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DOMAIN	STATUS	GEOLOCATION
jabber.org	ok	IP: 208.68.163.218 Country: United States of America Region: Iowa City: Monticello Latitude: 42.238514 Longitude: -91.189705 View: Google Map
etherx.jabber.org	ok	IP: 208.68.163.210 Country: United States of America Region: Iowa City: Monticello Latitude: 42.238514 Longitude: -91.189705 View: Google Map
xmlpull.org	ok	IP: 74.50.61.58 Country: United States of America Region: Texas City: Dallas Latitude: 32.814899 Longitude: -96.879204 View: Google Map
xmpp.org	ok	IP: 104.248.10.4 Country: United States of America Region: New Jersey City: Clifton Latitude: 40.858429 Longitude: -74.163757 View: Google Map



EMAIL	FILE
my@jabber.id send-to@jabber.id absender@jabber.id empfaenger@jabber.id	Android String Resource

▶ HARDCODED SECRETS

POSSIBLE SECRETS

"my_j4bber_password" : "my-j4bber-password"

"my_j4bber_password": "Ab5end3R-passW0rd"

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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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