Android Installer Encryption feature

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1. Introduction:

Encryption function to make our product more security. It protects our information like: UserName, UserPass, IMEI, UDID when we face with hacker. Some software to hack and detect information in our phone is:

+ Hack phone by root: http://www.addictivetips.com/mobile/how-to-root-your-android-phone-device/

+ SHARK : http://www.appbrain.com/app/shark-for-root/lv.n3o.shark

⇨ Install in Android phone to get information

+ Wincap: http://www.winpcap.org/install/default.htm wincap v4.1.2

+ NetworkMiner: http://sourceforge.net/projects/networkminer/ NetworkMiner v1.0

⇨ Installer in PC to analysis

2. What change we've made?

We use **Advanced Encryption Standard** (**AES**) to encrypt our information and **Base64** to encode and decode internet transfer protocol. Read link below for more details:

http://en.wikipedia.org/wiki/Advanced_Encryption_Standard

http://en.wikipedia.org/wiki/Base64

3. What data are now encrypted?

GLIVE:

http://livewebapp.gameloft.com/glive/?
lg=EN&
country=LkaKk/Yrhg30NsFvTlDUrVD1ENkvNoVcrGXq7CvZ1Oo=

&d=OrJQXGe6RCc4IvVJGa2xk/7HZsVHsO2sDNTzkEyqREfJ1XFBLbk5jE1MaYdBc3PKUPUQ2S82hVysZersK9nU6g==

&f=GRBQqqNBFCRbe7QjZ+ymslD1ENkvNoVcrGXq7CvZ1Oo=

&udid=uwQvKoQGaOA+EV543g3lf1D1ENkvNoVcrGXq7CvZ1Oo=

&GGI=6hjwuE43GwHKBw5nJ/pH11D1ENkvNoVcrGXq7CvZ1Oo=

&device_token=

&username=UPUQ2S82hVysZersK9nU6g==

&pass=UPUQ2S82hVysZersK9nU6g==

&remember_me=&type=ANDROID&height=800&fb=1&enc=1

+ TRACKING:

http://ingameads.gameloft.com/redir/hdloading.php
?game=UNHM&country=US&lg=en&ver=2.1&device=samsung_NexusS&f=2.3.4

&udid=aya9vYE7sEMrs/p3N2e97VD1ENkvNoVcrGXq7CvZ1Oo=

&g_ver=334

&line_number=0yGLz2ZZOdOqtR7somRwsVD1ENkvNoVcrGXq7CvZ1Oo=

&check=2&enc=1

+ IGP:

http://ingameads.gameloft.com/redir/android/index.php

?from=GAME_CODE&lg=EN

&udid= aya9vYE7sEMrs/p3N2e97VD1ENkvNoVcrGXq7CvZ1Oo=

&d=DEVICE_ANDROID&f=FIRMWARE_ANDROID&ver=GAME_VERSION&country=COUNTRY_DETECTED&height=DEVICE_HEIGHT"

&enc=1

+ JP_HD_SUBSCRIPTION

http://confirmation.gameloft.com/jp_hd_subscription/validate.php

&ticket= ZZOdOqtR7somRwsVD1ENkvNoVcrGXq7CvZ1

& imei= uwQvKoQGaOA+adaEV543g3lf1DERDrGXq7CvZ1Oo=

&enc=1

4. How to active the encryption in the installer?

+ Update newest installer version and check flag : USE_ENCRYPTION.

+ Edit “config.bat” to set: USE_ENCRYPTION=1

+ Build and check

5. How to check on phone?

To analyze newwork packet...

1. Install “**wincap”** and “**NetworkMiner”** on PC

http://www.winpcap.org/install/default.htm wincap v4.1.2

http://sourceforge.net/projects/networkminer/ NetworkMiner v1.0

2. Do **rooting** the device. : http://www.addictivetips.com/mobile/how-to-root-your-android-phone-device/

3. Install "**Shark for Root**" on device from Android market.

https://market.android.com/details?id=lv.n3o.shark&feature=search_result

4. Launch application (Ex: Asphat 6) and go out to springboard.

5. Perform the "Shark for Root" and touch "start"

6. Back to the game then make progress until it is enough progression to create *.pcap file.

7. Back to the "Shark for Roo"t and touch "stop" to save *.pcap to root folder in SD card.

8. Copy *.pcap file to PC and analyze it using the "NetworkMiner".

Done.

6. Screen shot: