



Fanvil configuration file encryption introduction

Version: <1.1>

Release date: <2018-5-11>

Contents

Contents	1
1 Introduction	2
1.1 Summary.....	2
1.2 Model.....	2
2 How to encrypt the configuration file of Fanvil products	3
3 How to use the encrypted configuration file in the auto-provision procedure	6

1 Introduction

1.1 Summary

As the convenience of auto provision way, there are more and more customers use it to deploy the IP phones. However, during the procedure of autoprovision, the configuration file must be sent via the LAN or WAN. It contains various sensitive private information, such as SIP account, password, phone administrator password, and so on.

In order to avoid information leakage, we could use a software named dsc.exe to encrypt the configuration file with AES256. It could be downloaded from <http://download.fanvil.com/tool/AES%20tool/dsc.exe>.

This document is used to introduce the following two usages.

- A. How to encrypt the configuration file of Fanvil products
- B. How to use the encrypted configuration file in the autoprovision procedure

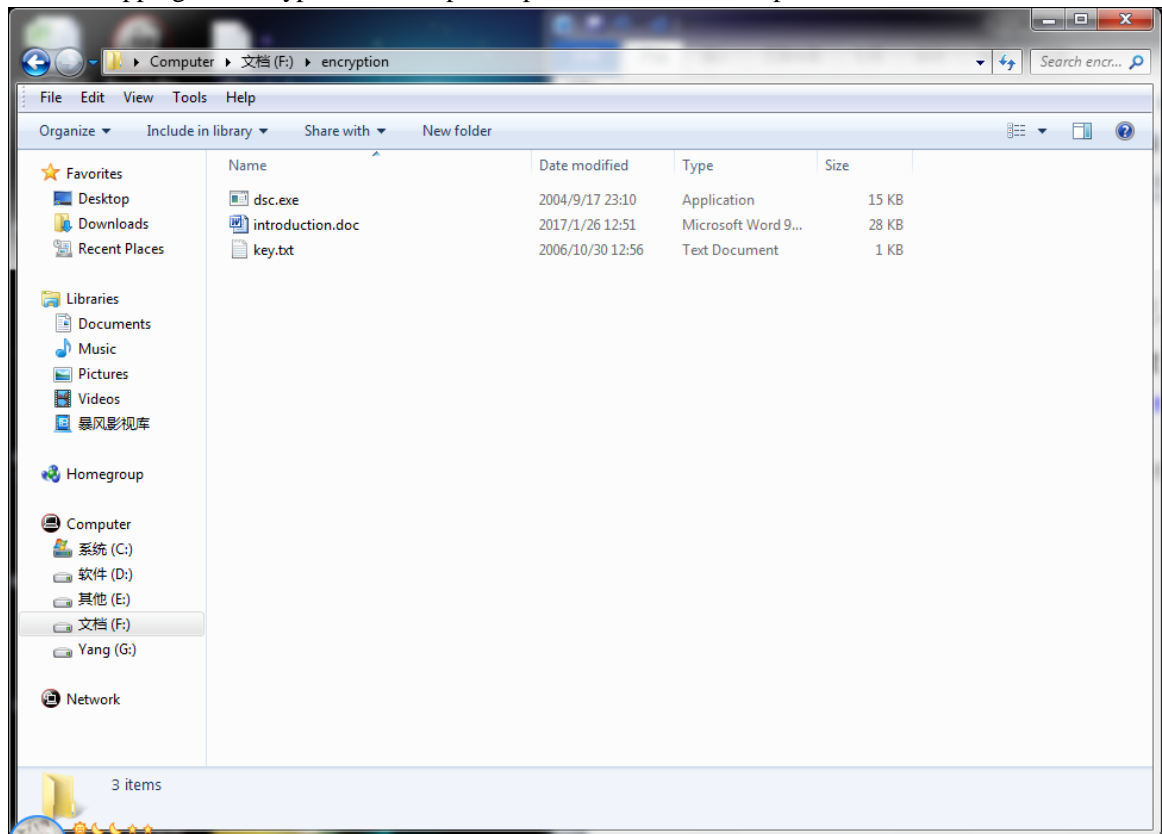
1.2 Model

This instruction is available for all the Fanvil IP phones.

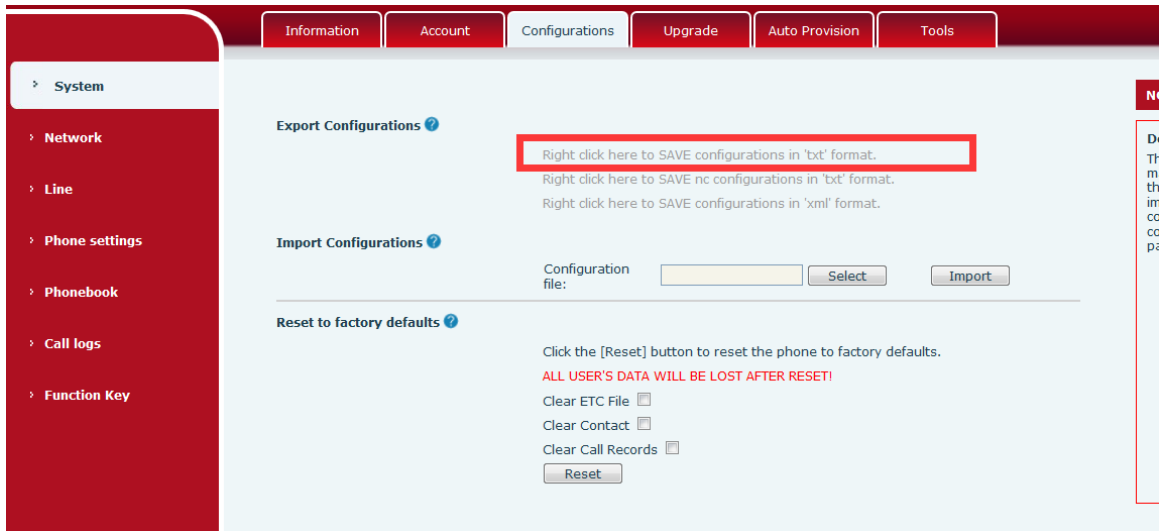
2 How to encrypt the configuration file of Fanvil products

We could use DSC to encrypt the configuration files with AES 256. It could be got from <http://download.fanvil.com/tool/AES%20tool/encryption.7z>. Now, there is an example to display how to do the encryption operation.

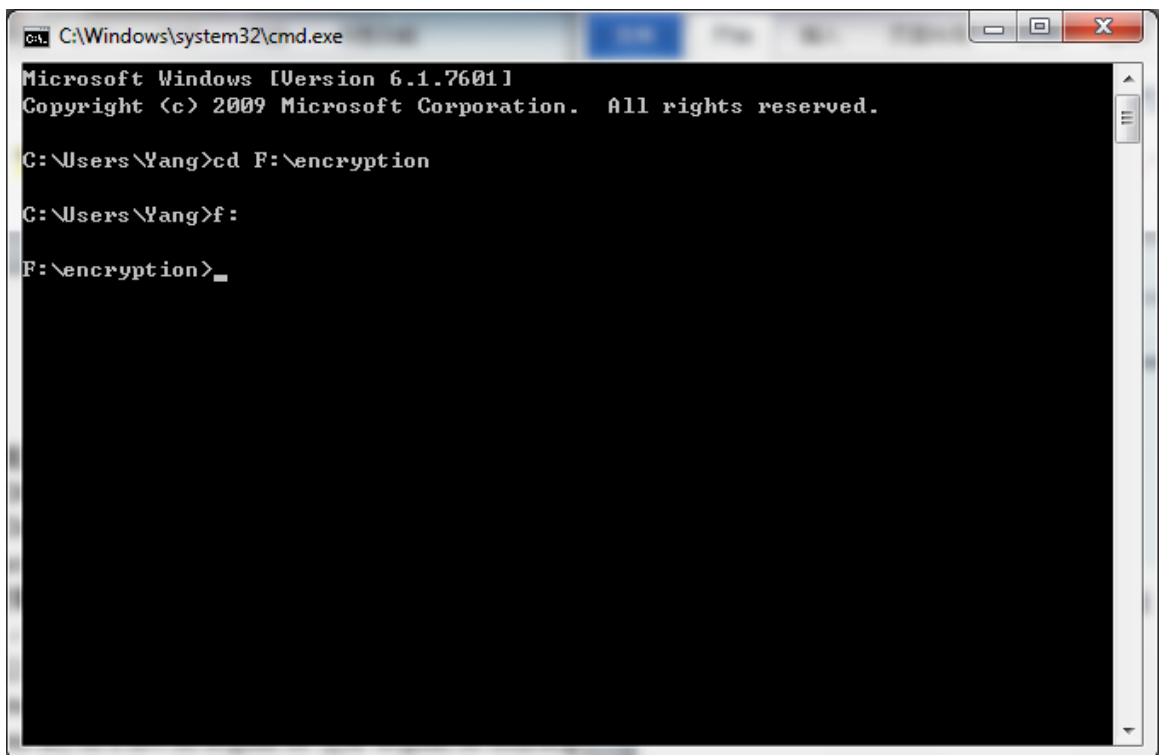
- 1) After unzipping the encryption.7z file, please put in into F disk root path.



- 2) Open key.txt, and the encryption key is in it. Customers could use the default value or type a new one. Note that the key must be 64 characters.
- 3) Download the configuration file on phone webpage, and modify it with the necessary information. As default, the name is config.txt. Put it into F:\encryption\



- 4) Search cmd in Windows system and go to the Dos command window. Type the command in following picture to enter encryption path.



- 5) Use the follow command to encrypt or decrypt the file.

Encrypt command: dsc.exe key.txt e config.txt encrypted.txt

dsc.exe: tool name

key.txt: encryption key file

"e": means encrypt

config.txt: configuration file name

encrypted.txt: the made file by the tool. It is the encrypted file.

Decrypt command: dsc.exe key.txt d encrypted.txt original.txt

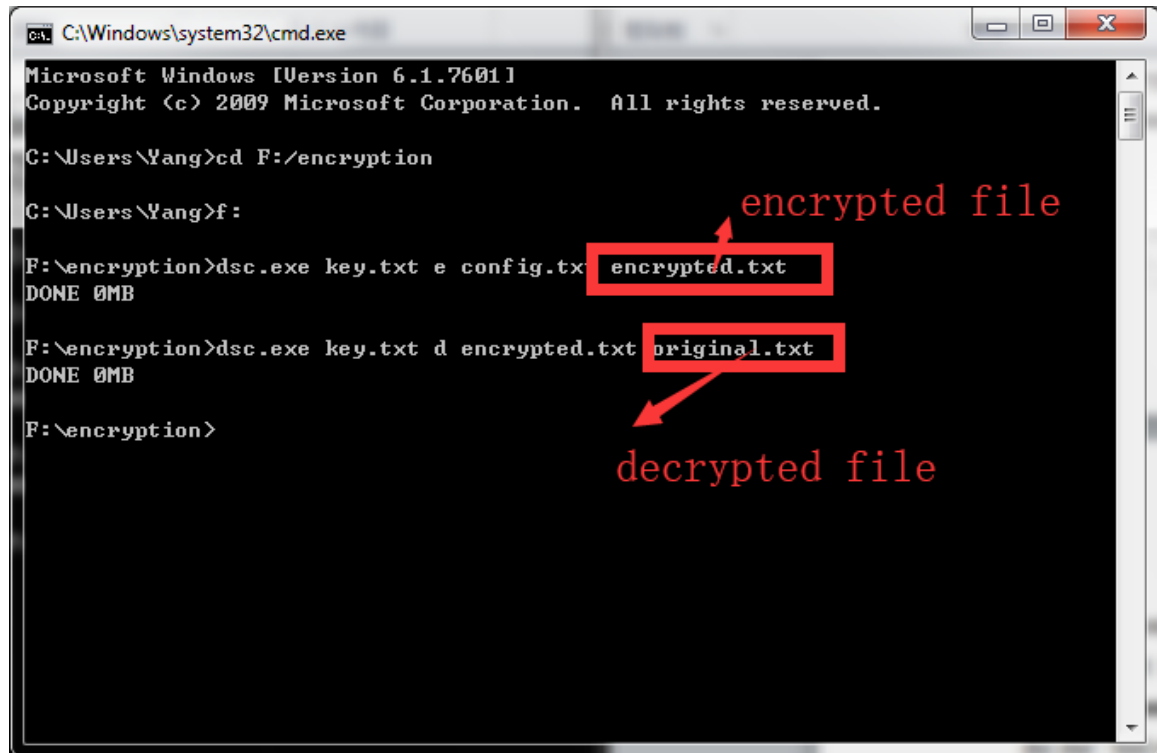
dsc.exe: tool name

key.txt: decryption key file

"d": means decryption

encrypted.txt: the encrypted file name

original.txt: the made file by the tool. It is the decrypted file.



```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Yang>cd F:/encryption
C:\Users\Yang>f:
F:\encryption>dsc.exe key.txt e config.txt encrypted.txt
DONE 0MB
F:\encryption>dsc.exe key.txt d encrypted.txt original.txt
DONE 0MB
F:\encryption>
```

The screenshot shows a Windows command prompt window with a black background and white text. The window title is "C:\Windows\system32\cmd.exe". The text inside the window shows the following sequence of commands and outputs:

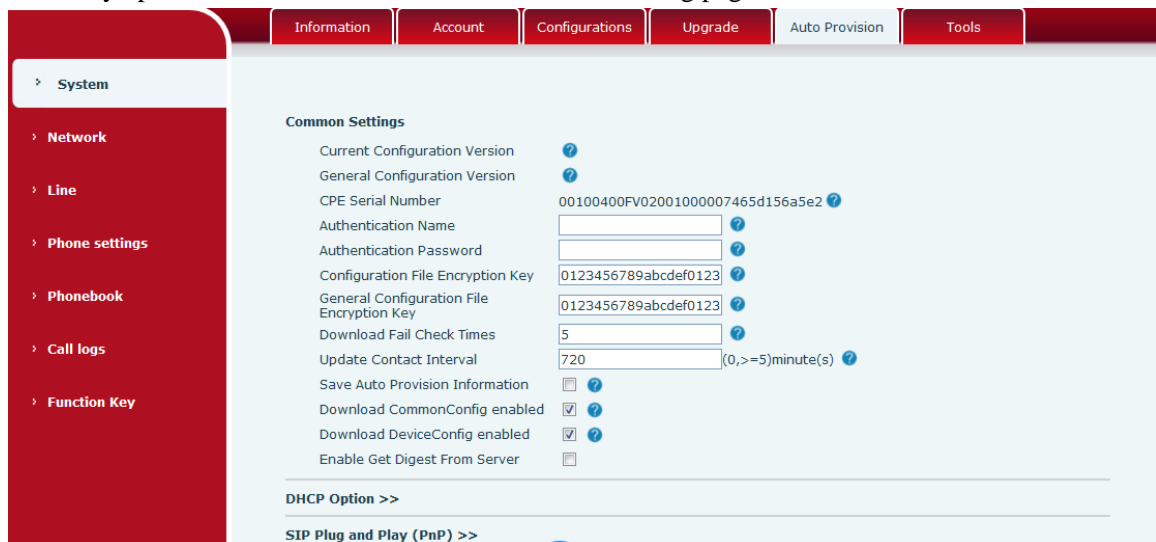
- Microsoft Windows [Version 6.1.7601]
- Copyright (c) 2009 Microsoft Corporation. All rights reserved.
- C:\Users\Yang>cd F:/encryption
- C:\Users\Yang>f:
- F:\encryption>dsc.exe key.txt e config.txt encrypted.txt
- DONE 0MB
- F:\encryption>dsc.exe key.txt d encrypted.txt original.txt
- DONE 0MB
- F:\encryption>

Red annotations are present in the image:

- A red arrow points from the text "encrypted file" to the filename "encrypted.txt" in the first command, which is also enclosed in a red box.
- A red arrow points from the text "decrypted file" to the filename "original.txt" in the second command, which is also enclosed in a red box.

3 How to use the encrypted configuration file in the auto-provision procedure

If customers want to use encrypted configuration file to configure the IP phone, adding the key is necessary operation. Customers could add it on the following page.



The screenshot shows a web interface with a top navigation bar containing 'Information', 'Account', 'Configurations', 'Upgrade', 'Auto Provision', and 'Tools'. A left sidebar lists menu items: 'System', 'Network', 'Line', 'Phone settings', 'Phonebook', 'Call logs', and 'Function Key'. The main content area is titled 'Common Settings' and contains the following fields:

Field Name	Value	Help Icon
Current Configuration Version		?
General Configuration Version		?
CPE Serial Number	00100400FV02001000007465d156a5e2	?
Authentication Name		?
Authentication Password		?
Configuration File Encryption Key	0123456789abcdef0123	?
General Configuration File Encryption Key	0123456789abcdef0123	?
Download Fail Check Times	5	?
Update Contact Interval	720	(0,>=5)minute(s) ?
Save Auto Provision Information	<input type="checkbox"/>	?
Download CommonConfig enabled	<input checked="" type="checkbox"/>	?
Download DeviceConfig enabled	<input checked="" type="checkbox"/>	?
Enable Get Digest From Server	<input type="checkbox"/>	

Below the settings are sections for 'DHCP Option >>' and 'SIP Plug and Play (PnP) >>'.

Finally, put the file made in 2 into configuration file server and type the server information on phone webpage. For details, refer to Autoprovision introduction.