



Grandstream Networks, Inc.

Router Configuration File Tool

User Guide

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PROCESS OF MODIFYING CONFIGURATION FILE

1. Export the configuration file from the web of the device;
2. Use this tool to decrypt the configuration file;
3. Modify the decrypted configuration file;
4. Use this tool to encrypt and generate a new configuration file;
5. Import the new configuration file to the device.



USAGE IN LINUX

Decryption

Command

```
./gscfgtool -t TYPE -f INPUT-FILE -d
```

TYPE:

Router product model: GWN7062, GWN7052, GWN7052F, GWN7001, GWN7002, GWN7003.

INPUT-FILE:

Exported configuration file.

```
15:03:53 ~/temp/gscfgtool$ ls -lhr
总计 4.6M
-rwxr-xr-x 1 wjn wjn 4.5M 6月 26 15:02 gscfgtool
-rw-rw-r-- 1 wjn wjn 116K 6月 26 15:03 config20230626150259.bin
15:03:56 ~/temp/gscfgtool$
15:04:04 ~/temp/gscfgtool$ ./gscfgtool -t gwn7002 -f config20230626150259.bin -d
Get type: 'GWN7002'
Start...
Start decrypt...
Head: 53616C7465645F5F
salt: 79F9CC91462F6116
Start decompress...
Succeeded !
15:04:29 ~/temp/gscfgtool$
15:04:39 ~/temp/gscfgtool$ ls -lhr
总计 4.6M
-rwxr-xr-x 1 wjn wjn 4.5M 6月 26 15:02 gscfgtool
-rw-rw-r-- 1 wjn wjn 116K 6月 26 15:03 config20230626150259.bin
drwxrwxr-x 3 wjn wjn 4.0K 6月 26 15:04 etc
drwxrwxr-x 3 wjn wjn 4.0K 6月 26 15:04 www
drwxrwxr-x 2 wjn wjn 4.0K 6月 26 15:04 tmp
drwxrwxr-x 3 wjn wjn 4.0K 6月 26 15:04 data
15:04:42 ~/temp/gscfgtool$
```

Figure 1: Example of successful decryption in Linux



```
15:06:35 ~/temp/gscfgtool$ ./gscfgtool -t gwn7001 -f config20230626150259.bin -d
Get type: 'GWN7001'
Start...
Start decrypt...
Head: 53616C7465645F5F
salt: 79F9CC91462F6116
EVP_CipherFinal_ex() failed !
error:1C800064:Provider routines::bad decrypt
Failed !
15:07:12 ~/temp/gscfgtool$ _
```

Figure 2: Example of decryption failure in Linux (using wrong type)

Note

1. The decrypted configuration file will be stored in the program running directory, see "data/", "etc/config/", "www/", "tmp/".

Encryption

Command

```
./gscfgtool -t TYPE -f INPUT-FILE -e
```

TYPE:

Router product model: GWN7062, GWN7052, GWN7052F, GWN7001, GWN7002, GWN7003.

OUTPUT-FILE:

New configuration file.



```
15:09:23 ~/temp/gscfgtool$ ls -lhr
总计 4.5M
-rwxr-xr-x 1 wjn wjn 4.5M  6月 26 15:02 gscfgtool
drwxrwxr-x 3 wjn wjn 4.0K  6月 26 15:04 etc
drwxrwxr-x 3 wjn wjn 4.0K  6月 26 15:04 www
drwxrwxr-x 2 wjn wjn 4.0K  6月 26 15:04 tmp
drwxrwxr-x 3 wjn wjn 4.0K  6月 26 15:04 data
15:09:24 ~/temp/gscfgtool$
15:09:25 ~/temp/gscfgtool$ ./gscfgtool -t gwn7002 -f config.bin -e
Get type: 'GWN7002'
Start...
Start compress...
- data/certificates
- data/sg.sqlite3
- etc/config/grandstream
- etc/config/cfmanager
- www/portal
- tmp/mac
- data/certificates/ca
- www/portal/images
- www/portal/js
- www/portal/style
- www/portal/default.html
- www/portal/index.html
- www/portal/images/icon_user_nor.png
- www/portal/images/icon_password_nor.png
- www/portal/images/image_default_7062.png
- www/portal/images/close.png
- www/portal/images/image_default_7052.png
- www/portal/images/image_default.png
- www/portal/js/main.js
- www/portal/js/vue.min.js
- www/portal/js/vconsole.min.js
- www/portal/js/axios.min.js
- www/portal/style/index.css
- www/portal/style/index.scss
```



```
- www/portal/style/index.css.map
Start encrypt...
salt: 03415021164F3455
Succeeded !
15:09:51 ~/temp/gscfgtool$
15:09:59 ~/temp/gscfgtool$ ls -lhtr
总计 4.6M
-rwxr-xr-x 1 wjn wjn 4.5M 6月 26 15:02 gscfgtool
drwxrwxr-x 3 wjn wjn 4.0K 6月 26 15:04 etc
drwxrwxr-x 3 wjn wjn 4.0K 6月 26 15:04 www
drwxrwxr-x 2 wjn wjn 4.0K 6月 26 15:04 tmp
drwxrwxr-x 3 wjn wjn 4.0K 6月 26 15:04 data
-rw-rw-r-- 1 wjn wjn 118K 6月 26 15:09 config.bin
15:11:35 ~/temp/gscfgtool$
```

Figure 3: Example of successful encryption in Linux

```
15:14:30 ~/temp/gscfgtool$ ls -lhtr
总计 4.5M
-rwxr-xr-x 1 wjn wjn 4.5M 6月 26 15:02 gscfgtool
drwxrwxr-x 3 wjn wjn 4.0K 6月 26 15:04 etc
drwxrwxr-x 2 wjn wjn 4.0K 6月 26 15:04 tmp
drwxrwxr-x 3 wjn wjn 4.0K 6月 26 15:04 data
15:14:32 ~/temp/gscfgtool$
15:14:33 ~/temp/gscfgtool$ ./gscfgtool -t gwn7002 -f config.bin -e
Get type: 'GWN7002'
Start...
Start compress...
- data/certificates
- data/sg.sqlite3
- etc/config/grandstream
- etc/config/cfmanager
opendir('www') failed: No such file or directory
Failed !
15:14:36 ~/temp/gscfgtool$
```

Figure 4: Example of encryption failure in Linux (missing "www/" directory)



Note

1. The program running directory needs four directories "data/", "etc/config/", "www/" and "tmp/" to generate configuration file.



USAGE IN WINDOWS

Decryption

Command

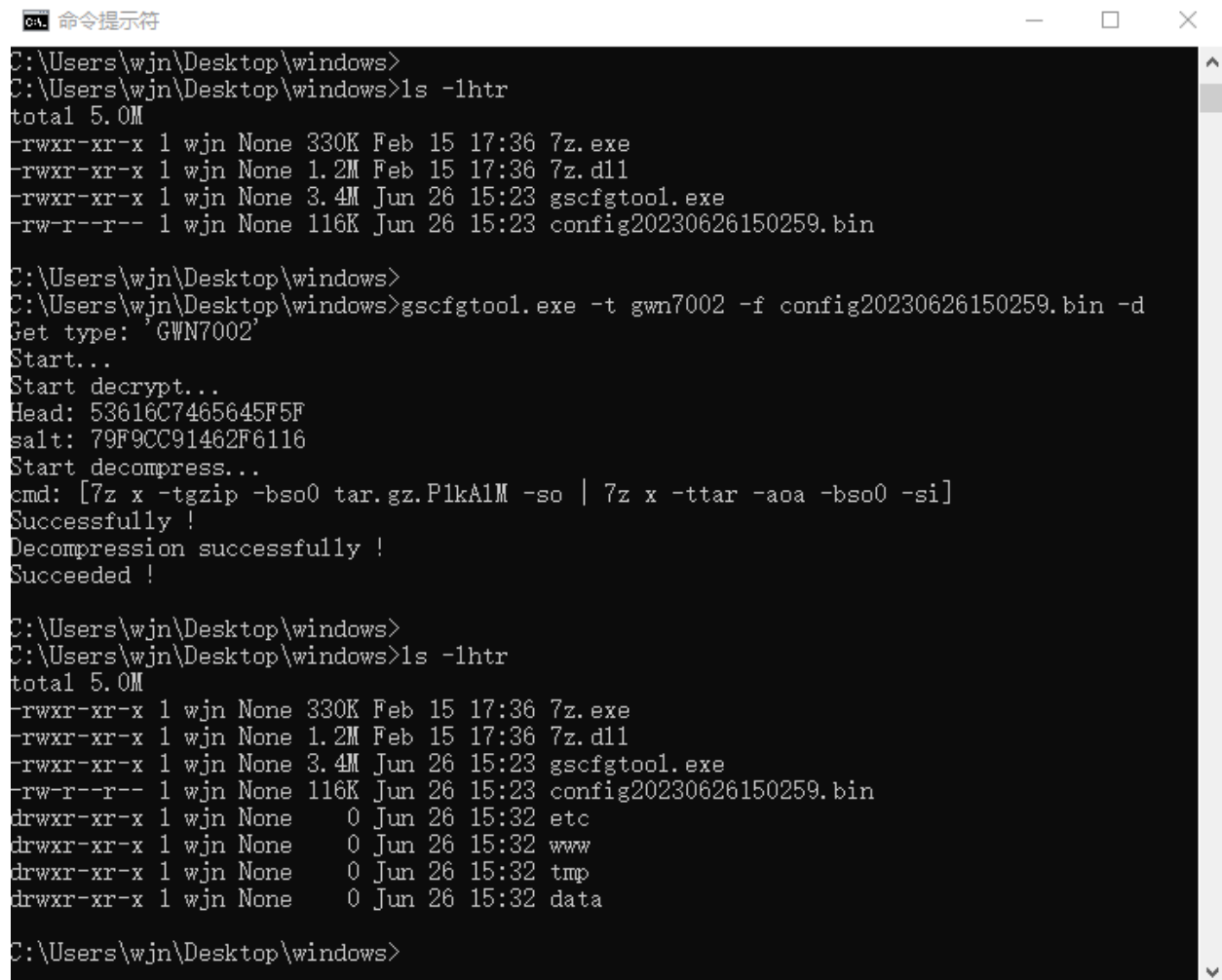
`gscfgtool.exe -t TYPE -f INPUT-FILE -d`

TYPE:

Router product model: GWN7062, GWN7052, GWN7052F, GWN7001, GWN7002, GWN7003.

INPUT-FILE:

Exported configuration file.



```

命令提示符
C:\Users\wn\Desktop\windows>
C:\Users\wn\Desktop\windows>ls -lhr
total 5.0M
-rwxr-xr-x 1 wjn None 330K Feb 15 17:36 7z.exe
-rwxr-xr-x 1 wjn None 1.2M Feb 15 17:36 7z.dll
-rwxr-xr-x 1 wjn None 3.4M Jun 26 15:23 gscfgtool.exe
-rw-r--r-- 1 wjn None 116K Jun 26 15:23 config20230626150259.bin

C:\Users\wn\Desktop\windows>
C:\Users\wn\Desktop\windows>gscfgtool.exe -t gwn7002 -f config20230626150259.bin -d
Get type: 'GWN7002'
Start...
Start decrypt...
Head: 53616C7465645F5F
salt: 79F9CC91462F6116
Start decompress...
cmd: [7z x -tgzip -bso0 tar.gz.P1kA1M -so | 7z x -ttar -aoa -bso0 -si]
Successfully !
Decompression successfully !
Succeeded !

C:\Users\wn\Desktop\windows>
C:\Users\wn\Desktop\windows>ls -lhr
total 5.0M
-rwxr-xr-x 1 wjn None 330K Feb 15 17:36 7z.exe
-rwxr-xr-x 1 wjn None 1.2M Feb 15 17:36 7z.dll
-rwxr-xr-x 1 wjn None 3.4M Jun 26 15:23 gscfgtool.exe
-rw-r--r-- 1 wjn None 116K Jun 26 15:23 config20230626150259.bin
drwxr-xr-x 1 wjn None 0 Jun 26 15:32 etc
drwxr-xr-x 1 wjn None 0 Jun 26 15:32 www
drwxr-xr-x 1 wjn None 0 Jun 26 15:32 tmp
drwxr-xr-x 1 wjn None 0 Jun 26 15:32 data

C:\Users\wn\Desktop\windows>

```

Figure 5: Example of successful decryption in Windows



```
C:\Users\wjn\Desktop\windows>gscfgtool.exe -t gwn7001 -f config20230626150259.bin -d
Get type: 'GWN7001'
Start...
Start decrypt...
Head: 53616C7465645F5F
salt: 79F9CC91462F6116
EVP_CipherFinal_ex() failed !
error:1C800064:Provider routines::bad decrypt
Failed !

C:\Users\wjn\Desktop\windows>
```

Figure 6: Example of decryption failure in Windows(using wrong type)

Note

1. The decrypted configuration file will be stored in the program running directory, see "data/", "etc/config/", "www/", "tmp/";
2. "gscfgtool.exe" depends on "7z.exe" and "7z.dll", which we have provided. If the "7z.exe" we provided doesn't work properly or you want a newer version, you can download it from "<https://www.7-zip.org/>";
3. Note that "7z.exe" and "7z.dll" must be in the same directory as "gscfgtool.exe" or in any directory specified by the environment variable "PATH".

Encryption

Command

```
gscfgtool.exe -t TYPE -f OUTPUT-FILE -e
```

TYPE:

Router product model: GWN7062, GWN7052, GWN7052F, GWN7001, GWN7002, GWN7003.

OUTPUT-FILE:

New configuration file.



```
选择 命令提示符

C:\Users\wjm\Desktop\windows>ls -lhtr
total 4.9M
-rwxr-xr-x 1 wjm None 330K Feb 15 17:36 7z.exe
-rwxr-xr-x 1 wjm None 1.2M Feb 15 17:36 7z.dll
-rwxr-xr-x 1 wjm None 3.4M Jun 26 15:23 gscfgtool.exe
drwxr-xr-x 1 wjm None 0 Jun 26 15:32 etc
drwxr-xr-x 1 wjm None 0 Jun 26 15:32 www
drwxr-xr-x 1 wjm None 0 Jun 26 15:32 tmp
drwxr-xr-x 1 wjm None 0 Jun 26 15:32 data

C:\Users\wjm\Desktop\windows>
C:\Users\wjm\Desktop\windows>gscfgtool.exe -t gwn7002 -f config.bin -e
Get type: 'GWN7002'
Start...
Start compress...
cmd: [7z a dummy -ttar data etc/config www tmp]
cmd: [7z a dummy -ttar data etc/config www tmp -so | 7z a dummy -tgzip -si -so \> tar.gz
.P1kA1M]
Successfully !
Compression successfully !
Start encrypt...
salt: F63775DF5CFBA40D
Succeeded !

C:\Users\wjm\Desktop\windows>
C:\Users\wjm\Desktop\windows>ls -lhtr
total 5.0M
-rwxr-xr-x 1 wjm None 330K Feb 15 17:36 7z.exe
-rwxr-xr-x 1 wjm None 1.2M Feb 15 17:36 7z.dll
-rwxr-xr-x 1 wjm None 3.4M Jun 26 15:23 gscfgtool.exe
drwxr-xr-x 1 wjm None 0 Jun 26 15:32 etc
drwxr-xr-x 1 wjm None 0 Jun 26 15:32 www
drwxr-xr-x 1 wjm None 0 Jun 26 15:32 tmp
drwxr-xr-x 1 wjm None 0 Jun 26 15:32 data
-rw-r--r-- 1 wjm None 114K Jun 26 15:37 config.bin

C:\Users\wjm\Desktop\windows>.
```

Figure 7: Example of successful encryption in Windows



```

命令提示符
C:\Users\wjm\Desktop\windows>ls -lhtr
total 4.9M
-rwxr-xr-x 1 wjm None 330K Feb 15 17:36 7z.exe
-rwxr-xr-x 1 wjm None 1.2M Feb 15 17:36 7z.dll
-rwxr-xr-x 1 wjm None 3.4M Jun 26 15:23 gscfgtool.exe
drwxr-xr-x 1 wjm None 0 Jun 26 15:32 etc
drwxr-xr-x 1 wjm None 0 Jun 26 15:32 tmp
drwxr-xr-x 1 wjm None 0 Jun 26 15:32 data

C:\Users\wjm\Desktop\windows>
C:\Users\wjm\Desktop\windows>gscfgtool.exe -t gwn7002 -f config.bin -e
Get type: 'GWN7002'
Start...
Start compress...
cmd: [7z a dummy -ttar data etc/config www tmp]
cmd: [7z a dummy -ttar data etc/config www tmp -so | 7z a dummy -tgzip -si -so \> tar.gz
.PlkAlM]

WARNING: 系统找不到指定的文件。
www

Scan WARNINGS for files and folders:

www : 系统找不到指定的文件。
-----
Scan WARNINGS: 1
Successfully !
Compression successfully !
Start encrypt...
salt: 137AEBBC8C204E880
Succeeded !

C:\Users\wjm\Desktop\windows>ls -lhtr
total 4.9M
-rwxr-xr-x 1 wjm None 330K Feb 15 17:36 7z.exe
-rwxr-xr-x 1 wjm None 1.2M Feb 15 17:36 7z.dll
-rwxr-xr-x 1 wjm None 3.4M Jun 26 15:23 gscfgtool.exe
drwxr-xr-x 1 wjm None 0 Jun 26 15:32 etc
drwxr-xr-x 1 wjm None 0 Jun 26 15:32 tmp
drwxr-xr-x 1 wjm None 0 Jun 26 15:32 data
-rw-r--r-- 1 wjm None 4.9K Jun 26 15:39 config.bin

C:\Users\wjm\Desktop\windows>
    
```

Figure 8: Example of encryption failure in Windows(missing "www/" directory)

Note

1. The program running directory needs four directories "data/", "etc/config/", "www/" and "tmp/" to generate configuration file;
2. "gscfgtool.exe" depends on "7z.exe" and "7z.dll", which we have provided. If the "7z.exe" we provided doesn't work properly or you want a newer version, you can download it from "<https://www.7-zip.org/>";
3. Note that "7z.exe" and "7z.dll" must be in the same directory as "gscfgtool.exe" or in any directory specified by the environment variable "PATH".

