



Quick Note 3

Backup and restore configuration files

Digi Technical Support

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1 VERSION

Version Number	Status
1.0	Published
1.1	Post release 4.981 Passwords are kept in a new file pwds.da0.
2.0	Updated and rebranded
2.1	Added SSL cert & key, SSH key, logcodes.dif
3.0	Updated and rebranded
3.1	Updated screenshots and instructions for new web interface, rebranding (Feb 2016)

1.1 Corrections

Requests for corrections or amendments to this Quick Note are welcome and should be addressed to: tech.support@digi.com

Requests for new Quick Notes can be sent to the same address.

2 BACKUP THE CONFIGURATION

To backup the individual configuration files, follow the process below.

2.1 Locate the files

Browse to:

Administration - File Management > FLASH Directory

Administration - File Management > FLASH Directory

mirror	101280 bytes	ro	13:10:36, 01 Feb 2015
<input type="checkbox"/> image	4773405 bytes	rw	09:01:09, 02 Feb 2016
<input type="checkbox"/> image4	4773405 bytes	rw	09:01:09, 02 Feb 2016
<input type="checkbox"/> wr44v2.web	1608187 bytes	rw	09:01:09, 02 Feb 2016
<input type="checkbox"/> logcodes.txt	21416 bytes	rw	09:01:10, 02 Feb 2016
<input type="checkbox"/> sreqs.dat	4096 bytes	rw	16:45:35, 02 Feb 2016
sreqs.fac	4096 bytes	ro	13:10:36, 01 Feb 2015
<input type="checkbox"/> manual.sb	26114 bytes	rw	09:01:10, 02 Feb 2016
<input type="checkbox"/> activate.sb	32636 bytes	rw	09:01:10, 02 Feb 2016
<input type="checkbox"/> CAcert.cer	1371 bytes	rw	13:10:36, 01 Feb 2015
<input type="checkbox"/> prlupdate.sb	30569 bytes	rw	09:01:10, 02 Feb 2016
<input type="checkbox"/> provision.sb	19226 bytes	rw	09:01:10, 02 Feb 2016
<input type="checkbox"/> gobiact.sb	24751 bytes	rw	09:01:10, 02 Feb 2016
<input type="checkbox"/> pppfc.ssb	7460 bytes	rw	09:01:10, 02 Feb 2016
<input type="checkbox"/> queryimsi.sb	10282 bytes	rw	09:01:10, 02 Feb 2016
<input type="checkbox"/> python.zip	1736922 bytes	rw	09:01:10, 02 Feb 2016
<input type="checkbox"/> wizards.zip	382678 bytes	rw	09:01:10, 02 Feb 2016
<input type="checkbox"/> privpy.enc	61524 bytes	rw	09:01:10, 02 Feb 2016
<input type="checkbox"/> carriers.txt	144 bytes	rw	09:01:12, 02 Feb 2016
<input type="checkbox"/> fpqa.rbf	392109 bytes	rw	09:01:10, 02 Feb 2016
<input type="checkbox"/> logcodes.dif	10 bytes	rw	12:40:12, 03 Feb 2016
config.fac	16479 bytes	ro	09:01:10, 02 Feb 2016
<input type="checkbox"/> fw.txt	762 bytes	rw	16:45:35, 02 Feb 2016
fw.fac	762 bytes	ro	09:01:10, 02 Feb 2016
<input type="checkbox"/> x3prof	4096 bytes	rw	16:45:34, 02 Feb 2016
<input type="checkbox"/> cert01.pem	1371 bytes	rw	09:01:10, 02 Feb 2016
<input type="checkbox"/> privrsa.pem	1679 bytes	rw	09:01:10, 02 Feb 2016
<input type="checkbox"/> att.cwe	34790809 bytes	rw	09:01:12, 02 Feb 2016
<input type="checkbox"/> att.nvu	45590 bytes	rw	09:01:12, 02 Feb 2016
<input type="checkbox"/> verizon.cwe	34777444 bytes	rw	09:01:12, 02 Feb 2016
<input type="checkbox"/> verizon.nvu	71556 bytes	rw	09:01:13, 02 Feb 2016
<input type="checkbox"/> sprint.nvu	109299 bytes	rw	09:01:13, 02 Feb 2016
<input type="checkbox"/> canada.cwe	34710138 bytes	rw	09:01:13, 02 Feb 2016
<input type="checkbox"/> rogers.nvu	18900 bytes	rw	09:01:13, 02 Feb 2016
<input type="checkbox"/> telus.nvu	19687 bytes	rw	09:01:13, 02 Feb 2016
<input type="checkbox"/> bell.nvu	42790 bytes	rw	09:01:13, 02 Feb 2016
<input type="checkbox"/> generic.nvu	47688 bytes	rw	09:01:13, 02 Feb 2016
templog.c1	131072 bytes	ro	15:34:26, 02 Feb 2016
<input type="checkbox"/> privSSH.pem	902 bytes	rw	15:35:04, 02 Feb 2016
<input type="checkbox"/> pwds.da0	215 bytes	rw	11:03:49, 03 Feb 2016
<input type="checkbox"/> config.da0	2417 bytes	rw	11:03:48, 03 Feb 2016

Up to 6 files may need to be saved from the router's flash memory.

The first four files will be present on all routers:

x3prof (X.25 PAD profiles)

sregs.dat (Serial (ASY) port S registers)

pwds.dao (Encrypted passwords)

config.dao (Main configuration parameters)

The next two files will only be present if the firewall and event logcodes have been edited and saved.

logcodes.dif (the event handler logcodes file)

fw.txt (Firewall script file)

If these files are not present, then only the four files above need to be backed up for restore.

Check for a SSH private key file & SSL private key and certificate files.

privrsa.pem (SSL private key)

certo1.pem (SSL server certificate)

privSSH.pem (Server private SSH key)

NOTE: The file names might not be named exactly as shown, but will be in the format "priv*.pem" and "cert*.pem". It is not possible to extract the private key files named "priv*.pem"; these will need to be recreated.

2.2 Back up the router's files to a secure location

Right click each file and choose to save the file to desktop, then move the files to a secure location such as a backed up file server. E.g . C:\backup\

3 RESTORE THE CONFIGURATION

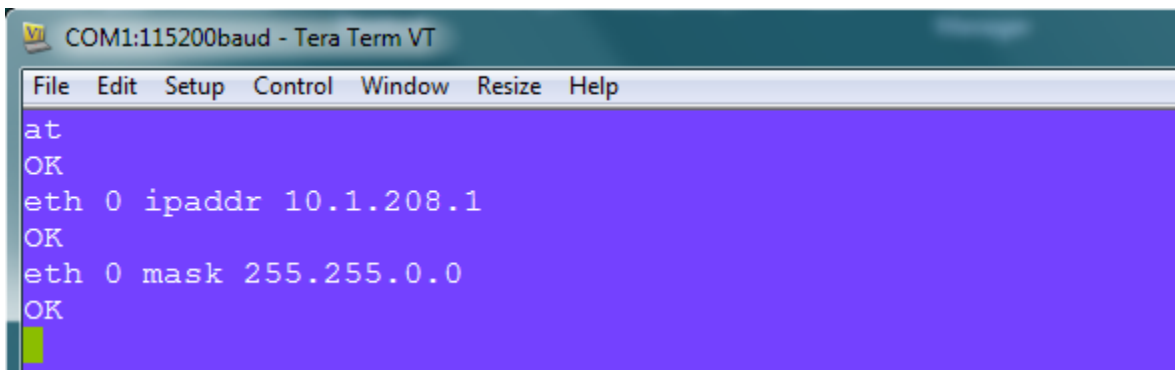
In a disaster recovery situation, obtain a spare router and ensure the firmware is at the same level as the previous router. Via the serial ASY o connection and terminal emulation software, configure a temporary IP address on Ethernet 0 in the same subnet as the attached PC to facilitate an FTP connection.

The Serial settings required are:

115200, 8-none-1, no flow control

Assign an IP address to the router.

For example:



The image shows a terminal window titled "COM1:115200baud - Tera Term VT". The window has a menu bar with "File", "Edit", "Setup", "Control", "Window", "Resize", and "Help". The terminal output shows the following sequence of commands and responses:

```
at
OK
eth 0 ipaddr 10.1.208.1
OK
eth 0 mask 255.255.0.0
OK
```

Figure 2: Commands via serial

Check the serial coms:

at

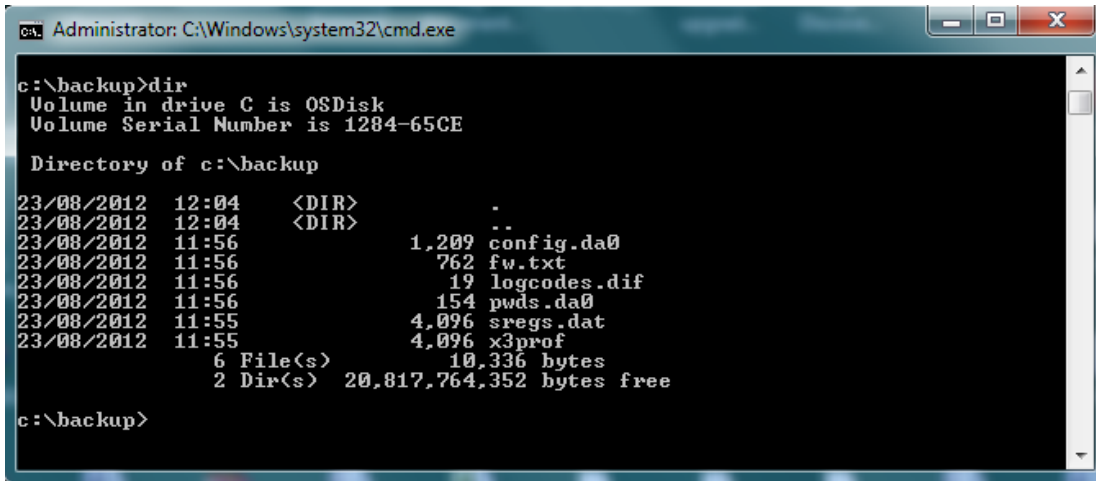
Set the IP address:

eth 0 ipaddr 10.1.208.1

Set the Subnet mask:

eth 0 mask "255.255.0.0"

The files in the example have been placed in C:\backup\ - see section 2.2



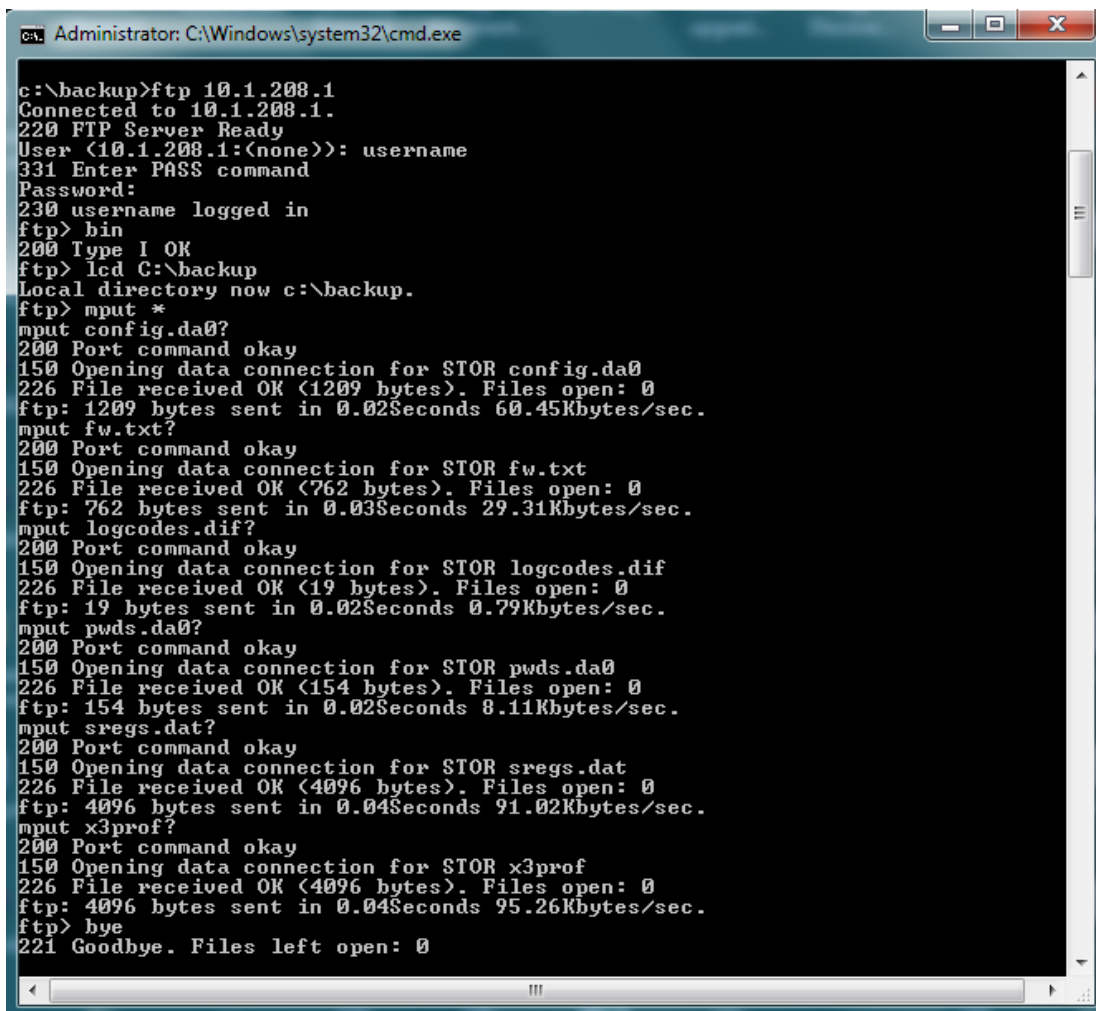
```
Administrator: C:\Windows\system32\cmd.exe
c:\backup>dir
Volume in drive C is OSDisk
Volume Serial Number is 1284-65CE

Directory of c:\backup

23/08/2012  12:04    <DIR>          .
23/08/2012  12:04    <DIR>          ..
23/08/2012  11:56                1,209 config.da0
23/08/2012  11:56                762 fw.txt
23/08/2012  11:56                 19 logcodes.dif
23/08/2012  11:56                 154 pwds.da0
23/08/2012  11:55                4,096 sregs.dat
23/08/2012  11:55                4,096 x3prof
                6 File(s)          10,336 bytes
                2 Dir(s)    20,817,764,352 bytes free

c:\backup>
```

FTP the 6 backed up files on to the router.



```
Administrator: C:\Windows\system32\cmd.exe
c:\backup>ftp 10.1.208.1
Connected to 10.1.208.1.
220 FTP Server Ready
User (10.1.208.1:(none)): username
331 Enter PASS command
Password:
230 username logged in
ftp> bin
200 Type I OK
ftp> lcd C:\backup
Local directory now c:\backup.
ftp> mput *
mput config.da0?
200 Port command okay
150 Opening data connection for STOR config.da0
226 File received OK (1209 bytes). Files open: 0
ftp: 1209 bytes sent in 0.02Seconds 60.45Kbytes/sec.
mput fw.txt?
200 Port command okay
150 Opening data connection for STOR fw.txt
226 File received OK (762 bytes). Files open: 0
ftp: 762 bytes sent in 0.03Seconds 29.31Kbytes/sec.
mput logcodes.dif?
200 Port command okay
150 Opening data connection for STOR logcodes.dif
226 File received OK (19 bytes). Files open: 0
ftp: 19 bytes sent in 0.02Seconds 0.79Kbytes/sec.
mput pwds.da0?
200 Port command okay
150 Opening data connection for STOR pwds.da0
226 File received OK (154 bytes). Files open: 0
ftp: 154 bytes sent in 0.02Seconds 8.11Kbytes/sec.
mput sregs.dat?
200 Port command okay
150 Opening data connection for STOR sregs.dat
226 File received OK (4096 bytes). Files open: 0
ftp: 4096 bytes sent in 0.04Seconds 91.02Kbytes/sec.
mput x3prof?
200 Port command okay
150 Opening data connection for STOR x3prof
226 File received OK (4096 bytes). Files open: 0
ftp: 4096 bytes sent in 0.04Seconds 95.26Kbytes/sec.
ftp> bye
221 Goodbye. Files left open: 0
```

Open a command prompt:

```
Start > Run > cmd
```

FTP to the configured IP address:

```
ftp 10.1.208.1
```

Enter the username and password to login (u=username / p=password)

Change to binary mode:

```
bin
```

Change the local directory:

```
Lcd C:\backup
```

Now transfer the files:

```
mput *
```

Logout:

```
bye
```

Reboot the router. When the router restarts, the configuration is restored.

3.1 Backup/Restore from the web interface

3.1.1 Backup the router's configuration files

The files can be backed up/restored via the router's web interface if required.

Browse to **Administration - Backup/Restore**

Administration - Backup/Restore

Backup configuration to a file on your PC or server.

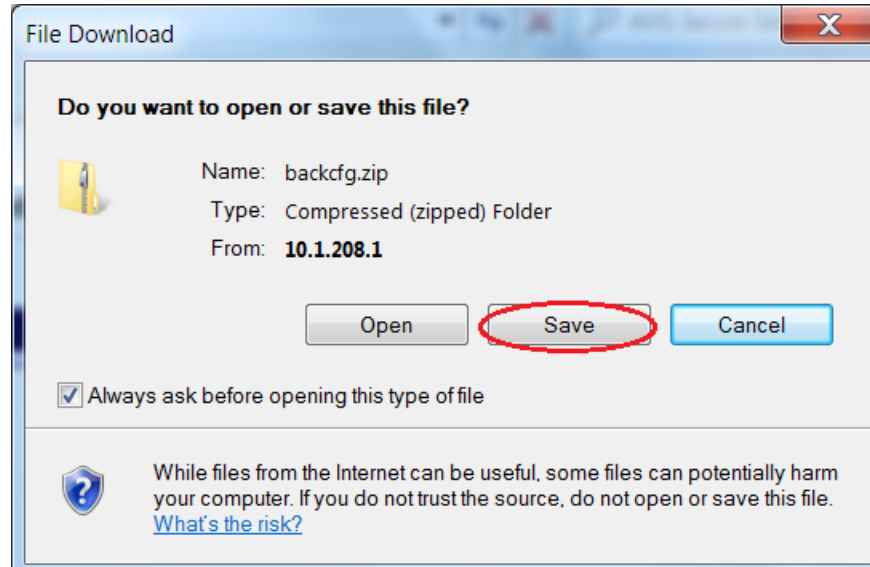
- Include passwords in the backup file.
- Include CA certificates in the backup file.
- Include certificates and keys in the backup file.
- Include MySQL database file in the backup file.
- Include routing protocol configuration files in the backup file.

Restore configuration from a file on your PC or server.

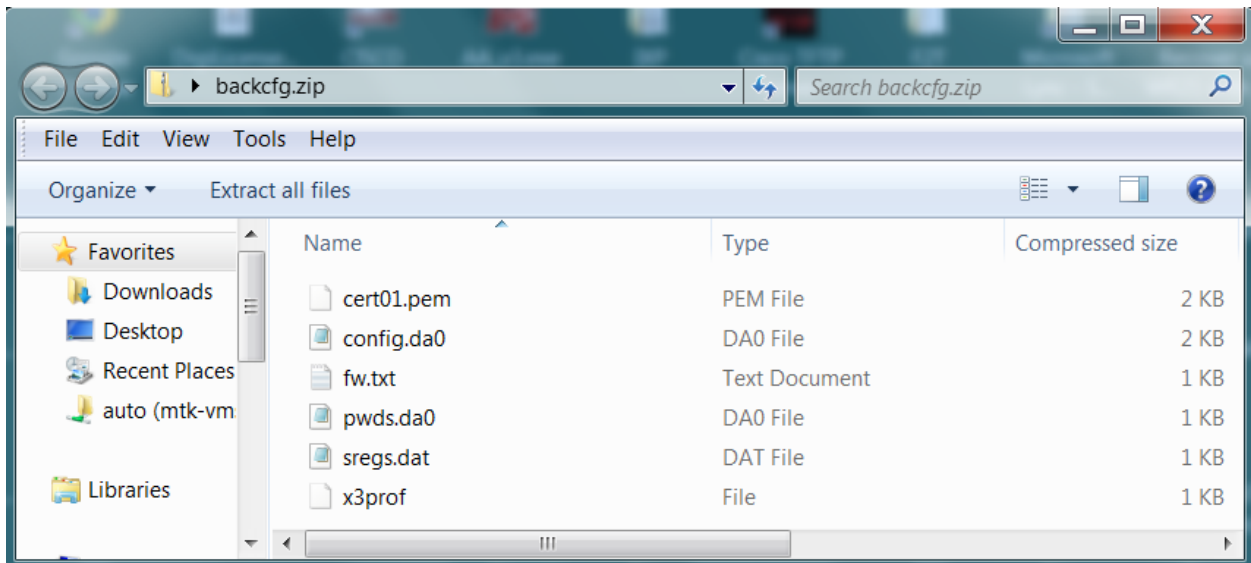
Restore From File: No file chosen

Under “Backup configuration to a file on your PC or server”, you have the option of saving such items as passwords, certificates, MySQL database file, and routing protocol configuration files by ticking or not ticking the particular option.

Click the “**Backup**” button.



Then **Save** the files to a secure location.



Check for a SSH private key file & SSL private key and certificate files.

privrsa.pem (SSL private key)

certo1.pem (SSL server certificate)

privSSH.pem (Server private SSH key)

NOTE: The file names might not be named exactly as shown, but will be in the format "priv*.pem" and "cert*.pem". It is not possible to extract the private key files named "priv*.pem"; these will need to be recreated.

3.1.2 Restore the router's configuration files

Click the "Choose File" button and select the location of the file where the backup was saved earlier.

Administration - Backup/Restore

Backup configuration to a file on your PC or server.

- Include passwords in the backup file.
- Include CA certificates in the backup file.
- Include certificates and keys in the backup file.
- Include MySQL database file in the backup file.
- Include routing protocol configuration files in the backup file.

Restore configuration from a file on your PC or server.

Restore From File: backcfg.zip

Filename	Status	Transfer	CRC
x3prof	Written to flash	100%	OK
sregs.dat	Written to flash	100%	OK
cert01.pem	Written to flash	100%	OK
fw.txt	Written to flash	100%	OK
pwds.da0	Written to flash	100%	OK
config.da0	Written to flash	100%	OK

Progress

Configuration Restore Started
Receiving ZIP file
Files successfully written to flash
Configuration Restore ended

Configuration restoration complete. Click [here](#) to reboot the unit.

Next click the "Restore" button.

The file restoration will begin and finally all the files that were backed up will be restored to the router.

Reboot the router.