

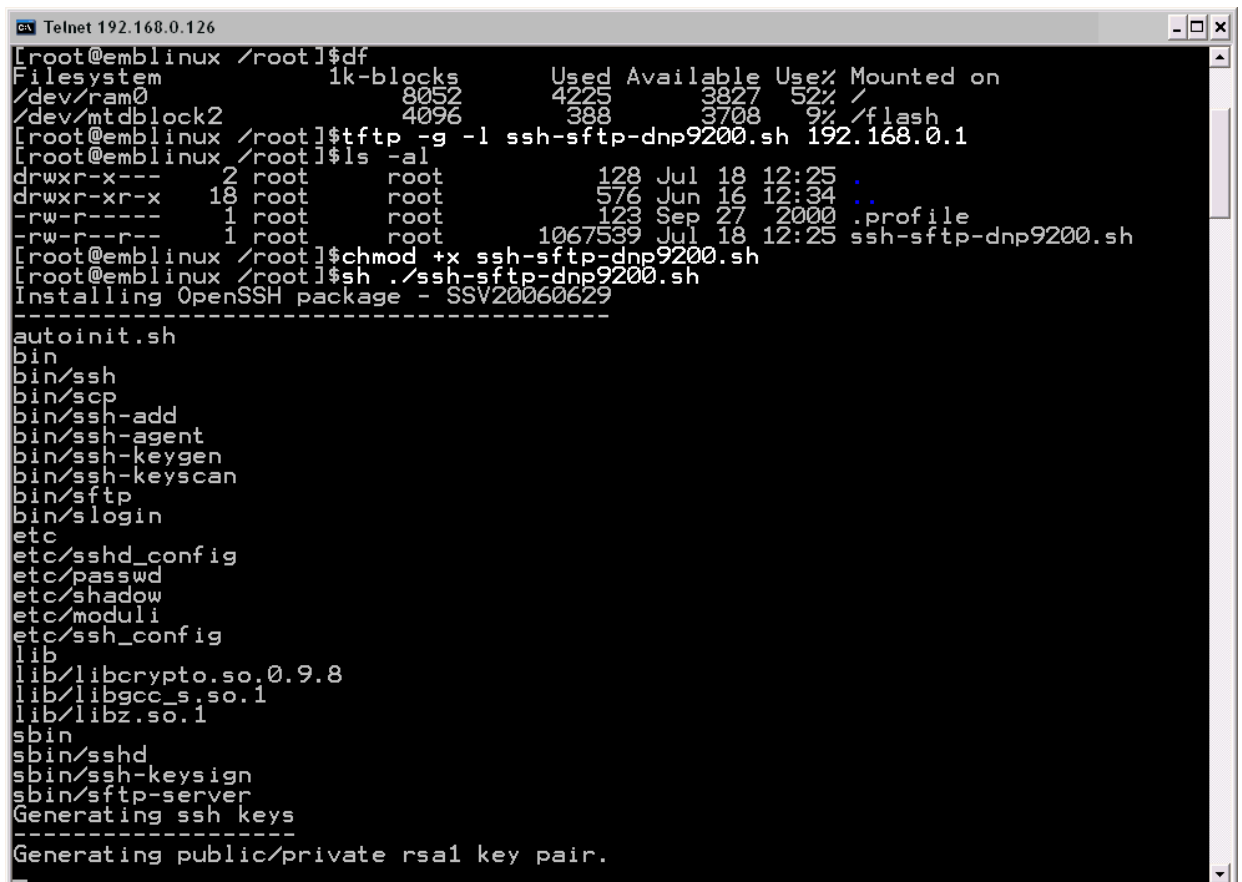
## How to install the SSH and SFTP Server Programs

The DIL/NetPC DNP/9200 Linux operating system is prepared for SSH (Secure Shell) and SFTP (Secure File Transfer Protocol) usage. These protocols allow secure logins and file transfers. SSH is a Telnet replacement. SFTP offers the functions of FTP and TFTP in a secure operation mode.

There is a pre-build install file with SSH and SFTP available. This install file *ssh-sftp-dnp9200.sh* for the DIL/NetPC DNP/9200 with Linux kernel version 2.6.16 is downloadable over [www.dilnetpc.com/dnp0078.htm](http://www.dilnetpc.com/dnp0078.htm).

- **1. Step:** Download the install file *ssh-sftp-dnp9200.sh* from your PC to the DNP/9200 directory */root*. Please use TFTP or FTP for this task. You need root rights on the DNP/9200 for this task. Then supply the file */root/ssh-sftp-dnp9200.sh* with executable rights:

```
chmod +x ssh-sftp-dnp9200.sh
```



```
Telnet 192.168.0.126
[root@emblinux /root]$df
Filesystem            1k-blocks      Used Available  Use% Mounted on
/dev/ram0              8052          4225       3827    52% /
/dev/mtdblock2        4096           388        3708     9% /flash
[root@emblinux /root]$tftp -g -l ssh-sftp-dnp9200.sh 192.168.0.1
[root@emblinux /root]$ls -al
drwxr-x---   2 root   root           128 Jul 18 12:25 .
drwxr-xr-x  18 root   root           576 Jun 16 12:34 ..
-rw-r-----   1 root   root           123 Sep 27 2000 .profile
-rw-r--r--   1 root   root       1067539 Jul 18 12:25 ssh-sftp-dnp9200.sh
[root@emblinux /root]$chmod +x ssh-sftp-dnp9200.sh
[root@emblinux /root]$sh ./ssh-sftp-dnp9200.sh
Installing OpenSSH package - SSV20060629
-----
autoinit.sh
bin
bin/ssh
bin/scp
bin/ssh-add
bin/ssh-agent
bin/ssh-keygen
bin/ssh-keyscan
bin/sftp
bin/slogin
etc
etc/sshd_config
etc/passwd
etc/shadow
etc/moduli
etc/ssh_config
lib
lib/libcrypto.so.0.9.8
lib/libgcc_s.so.1
lib/libz.so.1
sbin
sbin/sshd
sbin/ssh-keysign
sbin/sftp-server
Generating ssh keys
-----
Generating public/private rsa1 key pair.
```

- **2. Step:** Form the DNP/9200 directory */root* please run the install file *ssh-sftp-dnp9200.sh* with the help of the following command line:

```
sh ./ssh-sftp-dnp9200.sh
```

Wait until the install process finish. First the install file copy a lot of different support files to some DNP/9200 directories. Then the install file generates the SSH keys. This needs some time.

```
Telnet 192.168.0.126
bin/ssh
bin/scp
bin/ssh-add
bin/ssh-agent
bin/ssh-keygen
bin/ssh-keyscan
bin/sftp
bin/slogin
etc
etc/sshd_config
etc/passwd
etc/shadow
etc/moduli
etc/ssh_config
lib
lib/libcrypto.so.0.9.8
lib/libgcc_s.so.1
lib/libz.so.1
sbin
sbin/sshd
sbin/ssh-keysign
sbin/sftp-server
Generating ssh keys
-----
Generating public/private rsa1 key pair.
Your identification has been saved in /flash/etc/ssh_host_key.
Your public key has been saved in /flash/etc/ssh_host_key.pub.
The key fingerprint is:
5f:ac:6b:04:23:04:da:fd:cc:22:96:2e:69:7c:24:3b root@emblinux
Generating public/private dsa key pair.
Your identification has been saved in /flash/etc/ssh_host_dsa_key.
Your public key has been saved in /flash/etc/ssh_host_dsa_key.pub.
The key fingerprint is:
33:6e:eb:41:0e:22:c5:fe:24:92:d7:33:ca:dc:25:4e root@emblinux
Generating public/private rsa key pair.
Your identification has been saved in /flash/etc/ssh_host_rsa_key.
Your public key has been saved in /flash/etc/ssh_host_rsa_key.pub.
The key fingerprint is:
94:1d:79:0b:bb:3d:fa:5b:f4:17:8d:42:75:fd:ae:08 root@emblinux
-----
done. - PLEASE REBOOT
[root@emblinux /root]#
```

- **3. Step:** Please reboot the DIL/NetPC DNP/9200 now. The SSH and SFTP server is available after this reboot. Then run a SSH session with PuTTY or any other SSH client program on your PC. Use the username *guest* and the password *guest* for your first SSH session.

**Please note:** A pre-build install file *ssh-dnp9200.sh* with SSH only for the DNP/9200 with Linux kernel version 2.4 is also available. The install steps are the same.

That's all.