

Gnucash

Is a nice home accounting system to track financial information and here's a way to let more than one person to access it.

In this presentation, I am assuming the users already know its quirks and kinks and am only addressing how to use it on/from more than a single device.

First: Set up ssh/sshd
Usually comes in the distro
man ssh (and sshd)

<http://www.tecmint.com/install-openssh-server-in-linux/>

```
[root@dave ~]# systemctl status sshd.service
```

- sshd.service - OpenSSH server daemon
Loaded: loaded

```
(/usr/lib/systemd/system/sshd.service; enabled;  
vendor preset: enabled)
```

Configs loaded like this:
Program->Distro->System->user

A portion of ~/.ssh/config

```
# ...  
Host pati  
    HostName pati.maplepark.com  
#    HostName 192.168.1.76  
#Hostname 2602:306:31a8:4e40:1e6f:65ff:fe5f:fce3  
    ForwardX11 yes  
    ForwardX11Trusted yes  
    Port 1996  
    User drf  
# ...
```

From “man ssh”

- f Requests ssh to go to background just before command execution. This is useful if ssh is going to ask for passwords or passphrases, but the user wants it in the background. This implies -n. The recommended way to start X11 programs at a remote site is with something like `ssh -f host xterm`.
- n Redirects stdin from /dev/null (actually, prevents reading from stdin). This must be used when ssh is run in the background. A common trick is to use this to run X11 programs on a remote machine. For example, `ssh -n shadows.cs.hut.fi emacs &` will start an emacs on shadows.cs.hut.fi, and the X11 connection will be automatically forwarded over an encrypted channel. The ssh program will be put in the background. (This does not work if ssh needs to ask for a password or passphrase; see also the -f Option.)

<http://www.snailbook.com/faq/background-jobs.auto.html>

RTFM? It's OK to say this to yourself!!

```
[drf@dave ~]$ cat bin/paticash  
ssh -f pati@pati "pgrep gnucash || gnucash"
```

```
[drf@dave ~]$ ls -al .ssh  
total 28  
drwx-----. 2 drf drf  89 Apr 30 11:52 .  
drwx-----. 27 drf drf 4096 Apr 30 16:12 ..  
-rw-----. 1 drf drf  399 May  3 2015 authorized_keys  
-rw-----. 1 drf drf  738 Apr 30 11:52 config  
-rw-----. 1 drf drf 1675 Apr 27 2015 id_rsa  
-rw-r--r--. 1 drf drf  404 Apr 27 2015 id_rsa.pub  
-rw-r--r--. 1 drf drf 4214 Mar  3 10:13 known_hosts
```

```
[drf@dave ~]$  
[drf@dave ~]$ # And to run it  
[drf@dave ~]$ paticash  
Found Finance::Quote version 1.17
```

“voilà”

GNU CASH Free Accounting Software

Expenses vs. Day of Week (01)

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Expenses	100.00	150.00	200.00	250.00	300.00	350.00	400.00
Income	50.00	75.00	100.00	125.00	150.00	175.00	200.00
Balance	50.00	75.00	100.00	125.00	150.00	175.00	200.00

Version: GnuCash-2.4.4 (r20418M built 2011-03-24)

[gncash/report/standard-reports](#)

Thanks for attending – Questions?

Dave Forrest

So why don't we use it?

IPv4 addresses $2^{32} = 4,294,967,296$

IPv6 addresses $2^{128} = 340,282,366,920,938,463,463,374,607,431,768,211,456$

which is 340 undecillion – 340 trillion trillion trillion

If IP addresses weighed one gram each:

IPv4 = half the Empire State Building

IPv6 = 56 billion earths