

# Ìäçãüò ÃñÐãĩñçò Âêêßíçòçò ôĩö FreeBSD ãéá × ñÐóôåò Linux®

John Ferrell

\$FreeBSD: release/8.4.0/el\_GR.ISO8859-7/articles/linux-users/article.xml 39632  
2012-10-01 11:56:00Z gabor \$

ÐíáõíáôééÜ Äééáéþíáôá © 2008 Ç ÌÜää Ôåèìçñßüóçò ôĩö FreeBSD  
\$FreeBSD: release/8.4.0/el\_GR.ISO8859-7/articles/linux-users/article.xml 39632  
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Ôĩ FreeBSD áßíáé Ýíá éáôĩ÷õñüíÝĩí àìðĩñééü öýíáĩëĩ ôĩö FreeBSD Foundation.  
Ôĩ Linux áßíáé Ýíá éáôĩ÷õñüíÝíá àìðĩñééü öýíáĩëĩ ôĩö Linus Torvalds óóéò ÇíüíÝíáò Ðĩééôåßåò.  
Ìé ëÝíáéò Intel, Celeron, EtherExpress, i386, i486, Itanium, Pentium, éáé Xeon áßíáé àìðĩñééÜ öýíáĩëá Þ  
éáôĩ÷õñüíÝíá àìðĩñééÜ öýíáĩëá ôçò Intel Corporation éáé ôüí ëöååõñééþí ôçò óóéò ÇíüíÝíáò Ðĩééôåßåò  
éáé óå Üééåò ÷þñåò.  
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Ç ëÝíç UNIX áßíáé éáôĩ÷õñüíÝĩí àìðĩñééü öýíáĩëĩ ôĩö Open Group óóéò ÇíüíÝíáò Ðĩééôåßåò éáé óå  
Üééåò ÷þñåò.  
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ðüéçóÝò ôĩö áéá íá áéáéñßíôĩ óå ðñíüíá óĩò åàññíýíáé àìðĩñééÜ öýíáĩëá. ¼ðĩö áóôÝò  
àìðáíßæíáé óå áóôü ôĩ éåßáñ éáé áéá üóåò áðü áóôÝò àíññæáé ç ÌÜää ÁíÜððõçò ôĩö FreeBSD üóé  
áßíáé ðééáíüí íá áßíáé àìðĩñééÜ öýíáĩëá, éå ååßå Ýíá áðü óå öýíáĩëá: “™” Þ “®”.

Ôĩ éåßáñ áóôü Ý÷÷ééðü íá àéçðóáé óç ãñÐãĩñç åñééåßüç ÷ñçóþþí Linux® ìÝóĩö / ðññ÷ñçíÝññ  
åðéðÝññ ìå ðéò ááóééÝò Ýñíéåò ôĩö FreeBSD

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# 1 ÅéóáãùãƆ

Οι εαβλαίη άδοιυ οιββαέ όεδ άεάοιηΎδ ιάοάίγ οιθ FreeBSD έάε οιθ Linux ίοόα ιΎοιέ ι θήι÷ιιηçiΎfié ÷ιιιόοάδ οιθ Linux ιά ιδιιήίγ ιιιΠιιήι ιά θήιόάιιιόοιγί όόόδ άάόέέΎδ Ύίιιέαδ οιθ FreeBSD. θήιιέάόάέ άέα ιέα όα÷ιέέΠ άεόάιιιιό όοι FreeBSD, έάέ άάι έά άίάόάιιιέγίλ όά όθ÷ιι “όέέιόιόέΎδ” άεάοιηΎδ ιάοάίγ οιι άγί όόόόçiΎδουι.

Öi êâñîâñi áóòü òðîëÝóâë üóë Ý÷âòâ Ðäç äâëáóáóóÐóâë ôî FreeBSD. Áí äâí Ý÷âòâ äâëáóáóóÐóâë ôî FreeBSD Ð ÷ñâëÛâáóòâ äîÐëëáë íâ öçî äëääëáóá äâëáóóóóóóóóóó òîð, ðññâëáëñîñî íá äëáóóóóóóó òî êâóÛëáë Áâëëëëóóóóóóóóóó òî FreeBSD ([http://www.FreeBSD.org/doc/el\\_GR.ISO8859-7/books/handbook/install.html](http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/install.html)) óòî Áâ÷âëñîâëñî òîð FreeBSD.

## 2 Êâëýöç: Ääí õďŰñ÷âé Bash;

[illegible][illegible]

### 3 ĐáêÝôá êáé Ports: ĐñĩôéÝôĩĩôáò ěĩăéóĩéēũ óôĩ FreeBSD

Ἄεθου ἀδὺ ὄγι θανάτιοεἰεἰβ Ἰεῖται ἡεἰάοῦόοάοοδ εἰεἰεἰεἰεἰ οἰο UNIX® (εἰάῖῖῖῖῖ οἰο δῖῖῖῖῖ εἰεἰεἰεἰεἰ, ἀδῖοἰῖῖῖῖ οἰο ἡἡ ÷ ἡῖῖ, ἡῖῖῖῖῖῖῖῖ ἡἡ ἡῖῖῖῖῖῖῖῖ), οἰ FreeBSD ῖῖῖῖῖῖῖ ἡἡ ἡῖῖῖῖῖῖ ἡῖῖῖῖῖῖ ἡῖῖ ὄγι ἡῖῖῖῖῖῖῖ ὄἡῖῖῖῖῖ: ὄἡ ὄἡῖῖῖ ἡἡ ὄἡ ports. ἡἡ ἡἡ ὄἡῖῖ ὄἡῖῖῖ ὄἡῖῖ ὄἡ ἡῖῖῖῖῖῖῖ ὄἡῖῖῖῖῖ ὄἡῖῖῖῖῖ ὄἡῖῖῖῖῖ ὄἡῖῖῖῖῖ ὄἡῖῖῖῖῖ, ἡῖῖῖῖ ἡῖῖ (<http://www.freebsd.org/ports/master-index.html>).

### 3.1 ĐấêÝôá

Όά θαέΎόά αβίαέ δñĩ-iaóaaèuóóéoiΎíáo áóánĩāΎó, èá èΎāāiĩ ôĩ áíóβóóíé÷ĩ áéá ôĩ FreeBSD òuĩ āñ÷āβuĩ .deb óá óóóóβiaóá Debian/Ubuntu éáé òuĩ āñ÷āβuĩ .rpm óá óóóóβiaóá Red Hat/Fedora. Όά θαέΎόά āāēāēβóóáíóáé ÷ñóóēĩñíēβíóáó òci áíóĩēP pkg\_add(1). Áéá δάνŨāāēāiā, ç āēuēĩōèç áíóĩēP āāēāēéóóŨ ôĩ **Apache 2.2**:

```
# pkg_add /tmp/apache-2.2.6_2.tbz
```

Ç ÷ ñΠός όçò ðáñáíÝôñîð -r iäçãâß ôçí pkg\_add(1) íá êáóääÜóää áðüüíáðá üüöí ôí ðáéÝðí, üöí êáé óéð áíáñðÞóáéo  
ðîð. êáé íá öí äæêáóáóóðÞóáé:

```
# pkg_add -r apache22
```

```

Fetchng ftp://ftp.freebsd.org/pub/FreeBSD/ports/i386/packages-6.2-release/Latest/apache22.tbz... Do

```

```

Fetching ftp://ftp.freebsd.org/pub/FreeBSD/ports/i386/packages-6.2-release/All/expat-2.0.0_1.tbz...
Fetching ftp://ftp.freebsd.org/pub/FreeBSD/ports/i386/packages-6.2-release/All/perl-5.8.8_1.tbz... D
[snip]

```

To run apache www server from startup, add `apache22_enable="YES"` in your `/etc/rc.conf`. Extra options can be found in startup script.

**Όχι!Βυθός:** Αί ÷ η̇ςοείιι̇τιέα̇βδ̇ά ιέά "α̇δ̇βόςις" Ύε̇αι̇ός ο̇ι̇ο FreeBSD (6.2, 6.3, 7.0, έ̇ε̇δ̇. δ̇ι̇ο̇ α̇α̇ιέ̇ε̇ϋ̇ ι̇δ̇ι̇η̇α̇βδ̇ά ι̇ά α̇α̇ε̇α̇δ̇α̇ο̇δ̇ρ̇α̇δ̇α̇ α̇δ̇ϋ̇ CD-ROM) ς̇ α̇ι̇ο̇ι̇ε̇ṗ pkg\_add -r ε̇ά ε̇α̇δ̇α̇α̇ϋ̇ο̇άε̇ δ̇ά δ̇α̇έ̇Υ̇ο̇ά δ̇ι̇ο̇ ο̇δ̇ε̇ϋ̇÷ο̇ς̇ε̇ά̇ι̇ α̇ε̇ά α̇δ̇ο̇ṗ ο̇ς̇ ο̇δ̇α̇ε̇α̇η̇ε̇ι̇Υ̇ίς̇ Ύε̇αι̇ός. Ο̇ά δ̇α̇έ̇Υ̇ο̇ά α̇δ̇ο̇ϋ̇ *β̇ο̇υ̇δ̇ α̇α̇ι̇ δ̇α̇η̇έ̇Υ̇÷̇ι̇ο̇ι̇* ο̇ε̇δ̇ δ̇ε̇Υ̇ί̇ι̇ ο̇δ̇α̇ε̇α̇δ̇ο̇ά̇β̇α̇δ̇ α̇ε̇α̇ϋ̇ο̇ά̇ε̇δ̇ ο̇υ̇ι̇ α̇δ̇α̇η̇ι̇α̇ṗι̇. ι̇δ̇ι̇η̇α̇βδ̇ά ι̇ά ÷̇ η̇ς̇ο̇είι̇ι̇δ̇ι̇ε̇ρ̇α̇δ̇α̇ ο̇ς̇ι̇ ι̇α̇δ̇α̇ε̇ς̇ο̇δ̇ṗ δ̇α̇η̇έ̇α̇ϋ̇ε̇ε̇ι̇ο̇ι̇δ̇ `PACKAGESITE` α̇ε̇ά ι̇ά δ̇α̇η̇ά̇ε̇ϋ̇ο̇ά̇α̇ α̇δ̇ο̇ṗ ο̇ς̇ι̇ δ̇η̇ι̇α̇δ̇ε̇ε̇α̇ι̇Υ̇ίς̇ ο̇δ̇ι̇δ̇α̇η̇ε̇ο̇ι̇ϋ̇. Α̇ε̇ά δ̇α̇η̇ϋ̇α̇α̇ε̇α̇ι̇, ε̇Υ̇δ̇ι̇ο̇ά̇δ̇ ο̇ς̇ι̇ `PACKAGESITE` ο̇ς̇ι̇ ο̇έ̇ι̇ṗ <ftp://ftp.freebsd.org/pub/FreeBSD/ports/i386/packages-6-stable/Latest/> ε̇ά ε̇α̇δ̇α̇α̇ϋ̇ο̇ά̇α̇ δ̇ά ο̇έ̇ι̇ δ̇η̇ϋ̇ο̇δ̇α̇ά̇ δ̇α̇έ̇Υ̇ο̇ά δ̇ι̇ο̇ ο̇δ̇ϋ̇η̇÷̇ι̇ο̇ι̇ α̇ε̇ά ο̇ς̇ ο̇ά̇ε̇η̇ϋ̇ 6.X.

Άέά δάνέοούοάνάο δέçñïöñßäð ò÷:âôééÛ ïä öá δάέÝóá, δανάέάέÿíä äéääÛöðä öçí áíuöçðá 4.4 ööí Åä÷:äénßäéí öïö  
 FreeBSD: ×ñçóéíðíéþíðáð öï Óýóðçíá Packages  
 ([http://www.FreeBSD.org/doc/el\\_GR.ISO8859-7/books/handbook/packages-using.html](http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/packages-using.html)).

### 3.2 Ports

Ç αáyðáñç ÿYëraïð æéá ðçí áæáoÜðóðáç áðáññíñáñí ððí FreeBSD áññíáç ç ÓðëëëäÑ ðúñ Ports. Ç ÓðëëëäÑ ðúñ Ports áññíáç Ýíá ðëáðóëí èäëðíðñäëñí ðñð áðñðäëáððáç áðñ Makefiles éäç áñ÷-áñá æéáðññí (patches) ðá ïðñá Ý÷íðí äçíëíðñäëáð æéäëëÜ, þððá íá áññíáç áññíáð Ç áæáoÜðóðáç æëÜíññí áðáññíñáñí ððí FreeBSD áðñ ðñí ðçääáñí ëðäéä ðñðð. ¼ðáí áæäëëéðÜðá Ýíá port, ðñ óýððçíä èä éáðááÜðáç ðñí ðçääáñí ëðäéä, èä áðáññíðáç ðëäð ðéð áðäëðñíñáñð áëëääÝð ÷ñçóëíðñëñíðáð ðá patches, èä ïáðáäëððððáç ðñí ëðäéä, éäç ðÝëíð èä áæäéáððððáç ðçí áðáññíäÑ. Èä äëëíðððáç ðçí Ñäéä æéääëéáðá èäç æéä ïðñéääððñðá ðð÷íñ áñáññíñáñí ðññáñÜññáðá.

Ἰδιῆνᾱβὼᾱ ἰᾱ ἁῆνᾱβὼᾱ ὀçῖ ὈῶεῖῖᾱP ὀυῖ Ports (ç ἰῑῖᾱ ἰᾱῆεῖYὀ ὀῖνYὀ ἰᾱῖὀYῆᾱὀᾱε εᾱε ὐὀ “ᾱYῖὀῆῖ ὀυῖ ports”), ὀῖῖ εᾱὀUῖῖᾱ /usr/ports. Ἀὀὀῖ ᾱYᾱᾱεᾱ ὁῖῖῖὀῖYὀᾱε ὐὀε ᾱᾱεᾱὀὀPὀὀὀᾱ ὀçῖ ὈῶεῖῖᾱP ὀυῖ Ports εᾱὀU ὀç ᾱεUῆεᾱεᾱ ὀçὀ ᾱᾱεᾱUὀὀὀὀçὀ ὀῖὀ FreeBSD. Ἀῖ ᾱᾱῖ ὀῖ Y÷ᾱὀ εUῖᾱε, ἰδιῆνᾱβὼᾱ ἰᾱ ὀçῖ ὁῖῖῖὀεYὀὀᾱὀ ᾱὀῖ ὀῖ CD ᾱᾱεᾱUὀὀὀὀçὀ ἰᾱ ὀçῖ ᾱῖPᾱεᾱ ὀῖὀ sysinstall(8) P ἰᾱ ὀçῖ εᾱὀᾱUὀὀᾱὀ ᾱὀῖ ὀῖὀὀ ᾱῖὀὀçῖᾱὀçὀYὀ ὀῖὀ FreeBSD ÷ῆçὀῖῖὀῖῖῖὀὀᾱ ὀçῖ ᾱῖὀῖP csup(1) P ὀçῖ ᾱῖὀῖP portsnap(8). Ἰδιῆνᾱβὼᾱ ἰᾱ ἁῆνᾱβὼᾱ εᾱὀὀῆᾱῆᾱβὼ ἰᾱçᾱῖᾱ ᾱεᾱ ὀçῖ ᾱᾱεᾱUὀὀὀὀç ὀçὀ ὈῶεῖῖᾱP ὀυῖ Ports ὀçῖ ᾱῖὀὀçὀᾱ 4.5.1 ([http://www.FreeBSD.org/doc/el\\_GR.ISO8859-7/books/handbook/ports-using.html](http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/ports-using.html)) ὀῖὀ ᾱᾱ÷ᾱεῆᾱῖὀ.

Ç ääëäóÜóóäóç äíüò port äßíäë ääíëëÜ öüóí äðëP uóí öí íá äéóÝëëäóä öüíí éäðÜëíäí öíò éäé íá íäëëíPóäóä öçí äéääëéäóßá íäðääëpðóéóçð. Öóí äëüëíöëí ðänÜääëäíä äßíäðäé ääëäóÜóóäóç öíð **Apache 2.2** äðü öçí ÓðëëíäP öüí Ports:

```
# cd /usr/ports/www/apache22
# make install clean
```

[illegible]

```
# cd /usr/ports/www/apache22
# make WITH_LDAP="YES" install clean
```

ÀéááÜôâ ôçí áíúôçôá 4.5 ôïð Åã÷ãéñéãßïð ôïð FreeBSD, ×ñçóéïïðíéðíôáð ôçí Ports Collection ([http://www.FreeBSD.org/doc/el\\_GR.ISO8859-7/books/handbook/ports-using.html](http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/ports-using.html)), áéá ðãñéóóüôãñãð ðëçñïïñßãð ó÷ãóéêÛ ïâ ôç Óõëëïãß ðùí Ports.

### 3.3 Ports Þ ááêÝôá, ôé ðñÝðáé íá ÷ñçóéìðïéÞòù;

[illegible]

## ĐáêÝôá (Ýôïëíà àêôãëÝóéíà)

- [illegible]

## Ports (őçãáßïò êpäéêáò)

- **Έξαιρούσθε τὸν ἀνθρώπον** οὗν ἀπὸ τοῦ ἀσπύρου. (Ὁ **Θάνατος** οὐ μόνον τὸ ἀσπύριον ἀλλὰ καὶ τὸν ἀνθρώπον ἀπὸ τοῦ ἀσπύρου). Ἡ δὲ **πύλη** τοῦ ἀνθρώπου ἡ **πύλη** τοῦ ἀσπύρου, οὐ μόνον ἀλλὰ καὶ τὸ ἀσπύριον ἀπὸ τοῦ ἀνθρώπου, ἀλλὰ καὶ τὸ ἀσπύριον ἀπὸ τοῦ ἀνθρώπου, ἀλλὰ καὶ τὸ ἀσπύριον ἀπὸ τοῦ ἀνθρώπου.
- **Τὸ ἀσπύριον** ἡ **πύλη** τοῦ ἀνθρώπου ἀπὸ τοῦ ἀσπύρου (patches) ἀπὸ τοῦ ἀσπύρου.

[illegible]

#### 4 ΑέεΒίçç ôĩõ ÓóóôΠιάôĩò: Ðĩõ áΒιάέ ôá run-levels;

Οι Linux ÷ ηςοείηδιέαβ οι όύοόγια âêêβίςοςδ SysV, âηρ οι FreeBSD ÷ ηςοείηδιέαβ οι δάνάαιόεαεη όύοόγια âêêβίςοςδ BSD. Οι όύοόγια init(8) όύδιθ BSD, ââι όδÜñ÷ιθι run-levels, ιýðâ οι âñ÷âβι /etc/inittab. Αίθβ âέα äððÜ, ç âêêβίςος âeYâ÷âðáε äðü Ýíâ script âêêβίςοςδ, οι rc(8). Το script /etc/rc âέαÜÜæáε οι âñ÷âβι /etc/defaults/rc.conf êáε οι âñ÷âβι /etc/rc.conf âέα íá êáειñβθáε διέâð ðδçñâððâð ðñùêáéðáε íá íâêειθιθι. Íε ðδçñâððâð äððÝð íâêειÜíá íâ ðçí âêðÝêâος ðùι áíθβθιθι÷÷ι script âêêβίςοςδ θιθ âñβέηθóáε óθιθð êáðáëüñθðð /etc/rc.d/ êáε /usr/local/etc/rc.d/. Óá scripts äððÜ âβíáé δάνüñíέα íâ óá scripts θιθ âñβέηθóáε óθιí êáðÜêειñ /etc/init.d/ óâ óðóðβιðáâ Linux.

Ἀέάββ ὀδῦñ÷ῖοι ἄγρ ὀδιῖῖῖῖῖῖῖ ἁέα ὀά scripts ἁέῖῖῖῖῖῖ ὀυῖ ὀδῖῖῖῖῖῖ; Ὀά scripts ὀῖῖ ἁῖῖῖῖῖῖῖῖ ὀῖῖῖ ἁῖῖῖῖῖῖῖ /etc/rc.d/ ἁῖῖῖῖ ἁέα ἁῖῖῖῖῖῖῖῖ ὀῖῖ ἁῖῖῖῖῖῖ ὀῖῖ “ἁῖῖῖῖῖῖ” ὀῖῖῖῖῖῖ. (ἁέα ὀῖῖῖῖῖῖῖῖ, ὀῖῖ cron(8), sshd(8), syslog(3), ἁέα ῖῖῖῖῖῖῖῖ). Ὀά scripts ὀῖῖ ἁῖῖῖῖῖῖῖῖ ὀῖῖῖ ἁῖῖῖῖῖῖῖῖ /usr/local/etc/rc.d/ ἁῖῖῖῖ ἁέα ἁῖῖῖῖῖῖῖῖ ὀῖῖ ῖῖ÷ῖῖῖ ἁῖῖῖῖῖῖῖῖῖῖ ἁῖῖ ὀῖῖῖ ÷ ῖῖῖῖῖῖῖ, ῖῖῖῖ ἁέα ὀῖῖῖῖῖῖῖῖῖ ῖ **Apache**, ὀῖ **Squid**, ἔ.ἔ.ῖ.

[illegible][illegible]

Οἱ ἀεὺἐρὸἐῖ ἀδϋόδαοῖα ἀδϋ ὦι ἀν÷ᾶβι /etc/rc.conf αἰἀναῖθῖεᾶβ ὁçí òðçñáòßá sshd(8) ἐᾶέ οἷῖ **Apache 2.2**. Ἀðßóçð  
ἐᾶέñḡæᾶé υῶέ ι **Apache** ἐᾶ ἱᾶέεῖΡῶᾶé ἰᾶ αἰἀναῖθῖεçῖÝῖç ὁç äöῖᾶôυðççᾶ SSL.

```
# enable SSHD
sshd_enable="YES"
# enable Apache with SSL
apache22_enable="YES"
apache22_flags="-DSSL"
```

Ἄδῡ ὁϙ ὀόεἰἵP ḑiō iéá ὀḑᑕñáḑá áíáñāīḑiēéçēḑḑ ὀḑi ḑñ÷ḑḑi /etc/rc.conf, ḑiññḑḑḑ íá ὁϙi íáēéiPḑḑḑḑ ḑḑḑēḑḑḑ  
 ḑḑḑ ὁϙ ḑñḑḑḑP ḑiḑiēḑi (÷ḑñḑḑ íá ÷ñāēÜæḑḑḑ íá ḑḑḑíáēēéiPḑḑḑḑ ḑi ὀýḑḑḑḑ ḑḑḑ):

```
# /etc/rc.d/sshd start
```

Áí íéá òðçñáòá ááí Ý ÷ áé áíáññäíðíéçéáß óóí áñ ÷ áßí áóòü, ìðñáßòá íá áíáíááéÜóáòá ôçí áêêßíçòç ôçò áðü ôçí áñáìíÐ áíóíèþí íá ôçí áðééñáÐ forcestart:

```
# /etc/rc.d/sshd forcestart
```

## 5 Ñýèìéóç Äéeôýĩõ

## 5.1 ÄéåđáöÝò Äéeôýĩõ

[illegible]

```
% ifconfig
em0: flags=8843<UP,BROADCAST,RUNNING,SIMPLEX,MULTICAST> mtu 1500
    options=b<RXCSUM,TXCSUM,VLAN_MTU>
    inet 10.10.10.100 netmask 0xffffffff00 broadcast 10.10.10.255
    ether 00:50:56:a7:70:b2
    media: Ethernet autoselect (1000baseTX <full-duplex>)
    status: active
em1: flags=8843<UP,BROADCAST,RUNNING,SIMPLEX,MULTICAST> mtu 1500
    options=b<RXCSUM,TXCSUM,VLAN_MTU>
    inet 192.168.10.222 netmask 0xffffffff00 broadcast 192.168.10.255
    ether 00:50:56:a7:03:2b
    media: Ethernet autoselect (1000baseTX <full-duplex>)
    status: active
```

## 5.2 ÑõèìΒóåéò Äéåõèýíóåùí IP

[illegible]

```
hostname="server1.example.com"
ifconfig_em0="inet 10.10.10.100 netmask 255.255.255.0"
defaultrouter="10.10.10.1"
```

×ñçóëiïðíéΠóôâ ôçí áêüëiðèç êáôá÷þñçóç áéá íá êáèiñßóáôâ üôé iéá äéáðáöÞ éá éaiâÛíáé ñöèißóáèð iÝòù DHCP:

```
hostname="server1.example.com"
ifconfig_em0="DHCP"
```

## 6 Firewall

Όλοι Linux → ηνζοείηειάβθαέ οι **IPTABLES** οι ιδιίθι θάνΥ → άε οδζήαόβαο firewall όά άδβθάάι δөнΠρά. Οι FreeBSD θάνΥ → άε άδβόδο firewall Υΰού οιω δονΠρά. Άέα όγι αένβääέα, οι FreeBSD θάνΥ → άε όηβά firewalls:

- IPFIREWALL ([http://www.FreeBSD.org/doc/el\\_GR.ISO8859-7/books/handbook/firewalls-ipfw.html](http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/firewalls-ipfw.html))
- IPFILTER ([http://www.FreeBSD.org/doc/el\\_GR.ISO8859-7/books/handbook/firewalls-ipf.html](http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/firewalls-ipf.html))
- PF ([http://www.FreeBSD.org/doc/el\\_GR.ISO8859-7/books/handbook/firewalls-pf.html](http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/firewalls-pf.html))

[illegible]

**DánÜäëàìá áúò éáíuíá ôïö IPFW ðïö äðéônÝðäé áéoân÷üiaía äääñÝía ðñïò ôçí öðçñaóßá SSH:**

```
ipfw add allow tcp from any to me 22 in via $ext_if
```

Ôi **IPFILTER** áðíáé íéá áóáñíáP firewall ðíó áíáðýóóáðáé áðú ôíí Darren Reed. Äáí Ý÷-áé ööéá÷-ðáß áéáéÜ áéá ôí FreeBSD, éáé Ý÷-áé íáðóáñéáß éáé óá Üëéá éáéðíññáéÜ, óðíðñééäíááííÝíúí ôúi NetBSD, OpenBSD, SunOS, HP/UX, éáé Solaris.

ĐánŨäâëàíà áíüò êáíuíá ãéá ôí **IPFILTER** ðĩõ ãðéõñÝðäé áéóãñ÷:ùiáíá áããñÝíá ðñĩò ôçí òðçñãóá **SSH**:

```
pass in on $ext_if proto tcp from any to any port = 22
```

Ç òàèãòòàáá àòàñìràP firewall, òì **PF**, áíáðòýòóòàóé áðü òì OpenBSD project. Ôì **PF** açìérìòñãPèçèà ùò áíòééáòáóòÜòçò òìò **IPFILTER**, éáé Ýòóé ç óýíòáç òìò **PF** ááíáé áñèãòÜ ðañüüíéá íá áóòP òìò **IPFILTER**. Ôì **PF** ìðññáá íá óóíáòáóóòáá íà òì altq(4) áéá íá ðánÝ ÷ áé òðçñáóáò òýðìò QoS.

ĐánÜääëâîá êáíuíá ôiõ **PF** ðiõ ãðéônÝðáé áéóañ÷ùiáíá áääiñÝíá ðñiò ôçí õðçñáóßá **SSH**:

```
pass in on $ext_if inet proto tcp from any to ($ext_if) port 22
```

## 7 Άίαâáèìβæïïôáò ôï FreeBSD

ÖðÜñ÷ïïï ññáéð ìÝëïäïë áéá ôçï áíááÜëïéóç áñuð óóóóPiáðïrð FreeBSD: ÌÝóù òïð ðçááßïrð êpáééá, ìÝóù Ýðïëïùì  
(binary) áíáááèìßóáùì, êáé ìÝóù òùì CD äãêäðÜóóáóçð.

Ç äæäðÛððáðç ìÝóù òìð ðçäâðìò èðäéä äâðäé ç ðér ðìèýðèìèç, äæÛ ðñìòóÝñäé éäé ðç ìääæýðäñç äðíäðP äðäéðìâ. Ç äéääéäðâ äððP ðäñééäìäÛíäé òì ððä÷ññíéðìù òìò òìðéèèý áíðéäñÛòìò òìò ðçäâðìò èðäéä òìò FreeBSD ìä òìí èðäéä òìò FreeBSD ðìò äñðóéäðäé ðóìðð äìððçñäðçðÝð CVS (Concurrent Versioning System). Äðù ðç ðóéäìP ðìò òì òìðéèù áíðâñäðì ðçäâðìò èðäéä äâðäé äíáíäùÝñ, ìðñâððä ìä ìäðäæùððððäðä ìÝäð äæäùäæð òìò ððñðíä éäé ðùí ääðéèðì ðñìäñäìÛðùí. Äéä ðäñéðóóððäñäð ðççñìòìñâðð ð÷äðééÛ ìä òì óýððçíä äíäâÛèìéðçð ìÝóù ðçäâðìò èðäéä, äâððä òì èäðÛèäéí ÄíçìÝñùðç éäé ÄíäâÛèìéðç ([http://www.FreeBSD.org/doc/el\\_GR.ISO8859-7/books/handbook/updating-upgrading.html](http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/updating-upgrading.html)) ðóì Ää÷äéñâäéí òìò FreeBSD.

Ίε Υόιειάο (binary) αίαάειβόάεο, άβίαέ δάνυιρέαο ιά ος ÷ñΠός οςο αίοιρέΠο yum P apt-get áέα οςι αίαάΥειέος áιυο  
 οόοόΠιάοιò Linux. Ç αίοιρέP freebsd-update(8) έα έαόάάΥοάε οέο αίαάειβόάεο έάε έα οέο άάεάοάοόΠοάέ. Ιδιñάβòά ιά  
 έάειñβóάòά οςι άόδύιáος, áíΥ όάέòΥ έάέάοΠιάόά άέòΥέάός οςò, ιά ος ÷ñΠός οίò cron(8).

**Όγιὰβυός:** Αί δñüēάέόάέ íá ÷ ñçόέííðíéΠόάðå ðí cron(8) áéá ðñĩāñáííåðéóíÝíåð áíááåèíßóåéð, ååååéüèåßðå ìðé ÷ ñçόέííðíéåßðå ðçí áíðíēΠ freebsd-update cron ððí åñ÷:åßí crontab(1) áéá íá åéå÷:éóðíðíéçèåßß ç ðééáíüðçðå íá åßíåðåé áíáíÝüóç ðçí ßéåå ðóéåíΠ åðü Ýíå íååÜēí åñéèü ïç÷:áíçÜðüí.

```
0 3 * * * root /usr/sbin/freebsd-update cron
```

Ç öâëãöôåáá äðëëïãP áíááÛëíóçð, ìÝòù òùì CD äãëáðÛóóáóçð, åbíáë äñëãðÛ íäëÛëãñ. Áðëð ãëëëíPóðå áðu òì  
 CD äãëáðÛóóáóçð ëáë äðëëÝíòå òçì áíðòòíë÷ç äðëëïãP áíááÛëíóçð (upgrade).

**8 procfs:** ÐǎñáóìÝĩí áëëÛ ü÷é Îǎ÷áóìÝĩí

Ói Linux, é ÷ñááóâá íá áââôâ ôi /proc/sys/net/ipv4/ip\_forward áé íá éâëññóáôâ áí áíáíé áíáññíðéííÍí c ðñíðécó IP (IP forwarding). Ói FreeBSD é ðñÝðáé íá ÷ñcéííðéíóáôâ ôi sysctl(8) áé íá áââôâ

ἄοδP εἰς Ὑπεῖο ἡγεῖσθῶμεν οἱ ὁδοῦΠαῖοι, εἰσὲν οἱ ποιεῖς(5) εὐαὐθῶς δῆνυ-çìÝñ ὁ δῆνυθῶοδῶ ἡεὐοῶοδ οἷ  
εἰσὲοἰοῖαεῖρ. (Αἱ εἰς ç αἰοῖP<sub>sysctl</sub> ἡεῖς ἡδῶοδ ἡεῖςÝοεῖ εἰς οἷ Linux).

Όοι δαηŨάεαia όσο δηηπεόσο IP, έα ÷ήσoέηδηέρύoαιά όçi άέueiωδές αίoiεP άέα ίά έάειηβóτoia αί ç äöíaóuôçoá áõðP  
âßíáé âíânäîdiécìÝíc oá Ýía FreeBSD óýóôçía:

```
% sysctl net.inet.ip.forwarding
net.inet.ip.forwarding: 0
```

Ç ¢đéëĩãP -a ÷ñçóéĩđĩéãßôáé ¢éá íá đŨñĩõĩã íéá ëßóóá ìã üëàò ôéò ñõèìßóáéò ôĩõ óõóôPĩáôĩò:

```
% sysctl -a
kern.ostype: FreeBSD
kern.osrelease: 6.2-RELEASE-p9
kern.osrevision: 199506
kern.version: FreeBSD 6.2-RELEASE-p9 #0: Thu Nov 29 04:07:33 UTC 2007
        root@i386-builder.daemonology.net:/usr/obj/usr/src/sys/GENERIC

kern.maxvnodes: 17517
kern.maxproc: 1988
kern.maxfiles: 3976
kern.argmax: 262144
kern.securelevel: -1
kern.hostname: server1
kern.hostid: 0
kern.clockrate: { hz = 1000, tick = 1000, profhz = 666, stathz = 133 }
kern.posix1version: 200112
...
```

Όχι!Βούο: ÊÜðíεάò áðü öéo ôéíÝò ðĩö äãß÷íáé ç áíôîÊP<sub>sysctl</sub> áßíáé ìüñ äéá áíÜáíüóç.

Ὁ ὁῦν ÷ τοῖ ἀναέδοροάδδ οῦδρὸ ἀδαέδαβδαέ οἱ procfs, οὔδου ἀέα δανῦΑαέααια οὔαρ ἀεοάαβδα δαέεουοανῖ εἰαείοιέε, οἱ ἰδῖβῖ εὔῖαέ ÷ πβός οὔδδ αἰοῖεβδ truss(1) ἀέα οὔι αἰβ ÷ ἰαοός οὔι ἐεβδαῖι οδοόβιαοῖδ, ἐαέ ἀέα οὔι Ὀοἰαάουόοὔα ἰα Ἀεοάεῖῖοεία οῖδ Linux ([http://www.FreeBSD.org/doc/el\\_GR.ISO8859-7/books/handbook/linuxemu.html](http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/linuxemu.html)). (Αἱ ἐαέ οὔι Ὀοἰαάουόοὔα ἰα Ἀεοάεῖῖοεία οῖδ Linux ÷ ηὔοείηδῖεάβ οἱ ἀέεῦ οὔδδ procfs, οἱ linprocfs(5)). Αἱ ÷ ηὔεῦΑαάδαέ ἰα δηῖοαῖδβδαά οἱ procfs, ἰδῖηβδαά ἰα δηῖοεῖῖοάδδ οὔι ἀέεῖοεὔ ἀαῖηαῖβ οὔι αἡ ÷ ἂβῖ /etc/fstab:

```
proc          /proc          procfs  rw,noauto          0          0
```

**Ὁγιαβυός:** Ὁ ἀδελφεῖς <sup>no</sup>auto ἐὰ ἀιδιᾶβόας ὁγί ἀδιδυῖαδός δῆτοῦ ἡνδός ὁτο /<sup>proc</sup> ἐὰδὺ ὁγί ἀελβίγος ὁτο ὁδὸβιὰδὸδ.

ĐñĩóãñôPóóâ éáôũđéĩ ôçĩ procfs ÷ñçóëĩđĩéĩpĩóáò ôçĩ áéũëĩõëç áĩôĩëP:

```
# mount /proc
```



## 9 ÓôίϗééôìÝíâò ÁíôïëÝò

### 9.1 Æéá÷âβñéόϗ ÐáëÝòùí

ÁíôïëP ôïò Linux (Red Hat/Debian)	Áíôβóôïë÷ç áíôïëP FreeBSD	Óëïðüò
<code>yum install package / apt-get install package</code>	<code>pkg_add -r package</code>	ÃãéáôÜóóáόϗ ÐáëÝòïò áðü áðñáëñòóìÝñ áñòðçñáðçòP
<code>rpm -ivh package / dpkg -i package</code>	<code>pkg_add -v package</code>	ÃãéáôÜóóáόϗ ÐáëÝòïò
<code>rpm -qa / dpkg -l</code>	<code>pkg_info</code>	Ëβóóá áãéáðáóóçÝñüí ÐáëÝòùí

### 9.2 Æéá÷âβñéόϗ ÓóóðPíáôïò

ÁíôïëP Linux	Áíôβóôïë÷ç áíôïëP FreeBSD	Óëïðüò
<code>lspci</code>	<code>pciconf</code>	Ëβóóá óóóëãðí PCI
<code>lsmod</code>	<code>kldstat</code>	Ëβóóá ôñòòùíÝñüí áññññüÜòùí ðññPíá
<code>modprobe</code>	<code>kldload / kldunload</code>	Öññòòòç/Áðñüññòòòç áññññüÜòùí ðññPíá
<code>strace</code>	<code>truss</code>	Áíβ÷íãóç êëPóáñüí óóóðPíáôïò

## 10 ÓôìðãñÜóíáóá

Ãðãéðéóôñγíã üóé áðòò ôñ êãβíãñí óáð ðãññβ÷ã áññããóÝò ðççññññññãò ãéá íá íãééPóáðãá íã ôñ FreeBSD. Æéá ðãñéóóüðãñãò éáé ðëñ êãðññãñãò ðççññññññãò, ðãñáéáéγñíá íá áéáãÜóáðã ôñ Æã÷áéñβãéñ ôñ FreeBSD ([http://www.FreeBSD.org/doc/el\\_GR.ISO8859-7/books/handbook/index.html](http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/index.html)) ôñ ïðñññ áðβόçò ðãñéÝ÷ãé éáé ðñéëÜ èÝíáóá ðñò ããñ éáéγóèçéáí éáéüéñò óôñ ðãñññ êãβíãññ.