

# Ἰᾱçãüò ÃñÐãĩñçò Âêêßícóçò ôĩō FreeBSD ãéá × ñÐóôåò Linux®

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\$FreeBSD: doc/el\_GR.ISO8859-7/articles/linux-users/article.sgml,v 1.3 2008/12/27  
08:18:37 manolis Exp \$

ḐĩᾱōĩᾱōēēŨ Äēēáēṑĩᾱōᾱ © 2008 Ç ḽĩŨᾱᾱ Ôᾱēĩçñßüóçò ôĩō FreeBSD

Ôĩ FreeBSD ᾱßĩᾱé Ṳĩᾱ éᾱōĩ÷ōñũĩŲĩᾱ ᾱĩḑĩñēēŨ ὀŷĩᾱĩēĩ ôĩō FreeBSD Foundation.

Ôĩ Linux ᾱßĩᾱé Ṳĩᾱ éᾱōĩ÷ōñũĩŲĩᾱ ᾱĩḑĩñēēŨ ὀŷĩᾱĩēĩ ôĩō Linus Torvalds ὀēō ÇĩũĩŲĩᾱò Ḑĩēēōᾱßᾱò.

Ἱé ēŲĩᾱēō Intel, Celeron, EtherExpress, i386, i486, Itanium, Pentium, éᾱé Xeon ᾱßĩᾱé ᾱĩḑĩñēēŨ ὀŷĩᾱĩēᾱ ṑ éᾱōĩ÷ōñũĩŲĩᾱ ᾱĩḑĩñēēŨ ὀŷĩᾱĩēᾱ ὀçò Intel Corporation éᾱé ὀũĩ ēōᾱᾱōñēēṑĩ ὀçò ὀēō ÇĩũĩŲĩᾱò Ḑĩēēōᾱßᾱò éᾱé ὀᾱ Ũēēᾱò ÷ṑñᾱò.

Ἱé ēŲĩᾱēō ṑ òñŨὀᾱéō Red Hat, éᾱé RPM ᾱßĩᾱé ᾱĩḑĩñēēŨ ὀŷĩᾱĩēᾱ ṑ éᾱōĩ÷ōñũĩŲĩᾱ ᾱĩḑĩñēēŨ ὀŷĩᾱĩēᾱ ὀçò Red Hat, Inc. ὀēō ÇĩũĩŲĩᾱò Ḑĩēēōᾱßᾱò éᾱé ὀᾱ Ũēēᾱò ÷ṑñᾱò.

Ç ēŲĩç UNIX ᾱßĩᾱé éᾱōĩ÷ōñũĩŲĩᾱ ᾱĩḑĩñēēŨ ὀŷĩᾱĩēĩ ôĩō Open Group ὀēō ÇĩũĩŲĩᾱò Ḑĩēēōᾱßᾱò éᾱé ὀᾱ Ũēēᾱò ÷ṑñᾱò.

ḐĩēēŲὀ ᾱḑũ ὀēō ēŲĩᾱēō ṑ òñŨὀᾱéō Ἱé Ἱḑĩßᾱò ÷ñçὀēĩḑĩēĩŷĩὀᾱé ᾱḑũ ὀĩὀò éᾱὀᾱὀēᾱὀᾱὀḑŲὀ ṑ ὀĩὀò ḑũēçὀŲὀ ὀĩὀò ᾱéᾱ Ἱᾱ ᾱéᾱēñßĩḑĩ ὀᾱ ḑñĩũũĩὀᾱ ὀĩὀò ēᾱũñĩŷĩὀᾱé ᾱĩḑĩñēēŨ ὀŷĩᾱĩēᾱ. ¼ḑĩὀ ᾱὀḑŲὀ ᾱĩὀᾱĩßᾱēĩὀᾱé ὀᾱ ᾱὀḑũ ὀĩ ēᾱßĩᾱñ éᾱé ᾱéᾱ ũὀᾱὀ ᾱḑũ ᾱὀḑŲὀ ᾱĩũñßᾱᾱé ç ḽĩŨᾱᾱ ἈĩŨḑὀḑĩçò ôĩō FreeBSD ũὀé ᾱßĩᾱé ḑēᾱᾱĩũĩ Ἱᾱ ᾱßĩᾱé ᾱĩḑĩñēēŨ ὀŷĩᾱĩēᾱ, éᾱ ᾱᾱßὀᾱ Ṳĩᾱ ᾱḑũ ὀᾱ ὀŷĩᾱĩēᾱ: “TM” ṑ “®”.

Ôĩ ēᾱßĩᾱñ ᾱὀḑũ Ṳ÷ᾱé ὀēĩḑũ Ἱᾱ ᾱĩçēṑὀᾱé ὀç ᾱñṑᾱĩñç ᾱñēēᾱßüóç ÷ñçὀḑṑĩ Linux® ἹŲὀĩὀ / ḑñĩ÷ũñçĩŲĩḑĩ ᾱḑēὀŲᾱĩὀ Ἱᾱ ὀēō ᾱᾱὀéēŲὀ Ṳĩḑĩᾱὀ ὀĩὀ FreeBSD

## Ḑßĩᾱᾱὀ Ḑᾱñᾱ÷ṑŲĩũĩ

1 Ἀὀᾱᾱũᾱṑ.....	1
2 Êᾱṑŷὀç: Ἀᾱĩ ὀḑŨñ÷ᾱé Bash;.....	2
3 ḐᾱṑŲὀᾱ éᾱé Ports: ḐñĩὀḑŲὀĩὀᾱὀ ēĩᾱὀἰṑṑṑ ὀḑĩ FreeBSD.....	2
4 Ἀêêßícóç ὀĩὀ Ὄὀὀḑṑĩᾱὀḑ: Ḑĩὀ ᾱßĩᾱé ὀᾱ run-levels;.....	4
5 Ñŷṑἰṑç Ἀṑṑŷĩὀ.....	5
6 Firewall.....	6
7 Ἀĩᾱᾱᾱṑἰßᾱēĩὀᾱὀ ὀĩ FreeBSD.....	7
8 procfs: ḐᾱñᾱὀĩŲĩḑĩ ᾱṑṑŨ ũ÷ṑ Ἱᾱ÷ᾱὀĩŲĩ.....	7
9 ὌḑĩçṑṑἰŲĩᾱὀ ἈĩὀṑṑŲὀ.....	8
10 ὌḑĩḑᾱñŨὀἰᾱὀᾱ.....	9

## 1 Ἀεάαῦᾶ

Ὁ ἐὰν ἂν ἀδῶ ὁ ἡβῶς ὁ ἐὰν ἂν ἡβῶς τοῦ FreeBSD ἁεῖ τοῦ Linux πόδα ἡβῶς ἡβῶς ἡβῶς τοῦ FreeBSD. ἡβῶς ἡβῶς ἡβῶς τοῦ FreeBSD. ἡβῶς ἡβῶς ἡβῶς τοῦ FreeBSD. ἡβῶς ἡβῶς ἡβῶς τοῦ FreeBSD.

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## 2 Ἐεῖος: Ἀῖ ὁ ἡβῶς ἡβῶς Bash;

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## 3 Ἐεῖος ἡβῶς Ports: ἡβῶς ἡβῶς τοῦ FreeBSD

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### 3.1 Ἐεῖος

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

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```
# pkg_add -r apache22
```

Fetching 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" Ύέα̇ιός ο̇ι̇ο FreeBSD (6.2, 6.3, 7.0, έ̇ε̇δ̇. δ̇ι̇ο α̇αίέ̇ε̇ϋ̇ ι̇δ̇ι̇η̇α̇βδ̇ά ιά α̇αέ̇α̇δ̇α̇ο̇δ̇ρ̇α̇δ̇ά α̇δ̇ϋ̇ CD-ROM) ς̇ α̇ι̇ο̇ι̇ε̇ρ̇ pkg\_add -r ε̇ά ε̇α̇δ̇α̇α̇ϋ̇ο̇ά̇ε̇ δ̇ά δ̇αέ̇Υ̇ο̇ά δ̇ι̇ο ο̇δ̇ε̇ϋ̇÷ο̇ς̇ε̇ά̇ι̇ α̇ε̇ά α̇δ̇ο̇ρ̇ ο̇ς̇ ο̇δ̇α̇ε̇α̇η̇ε̇ι̇Υ̇ίς̇ Ύέα̇ιός. Ο̇ά δ̇αέ̇Υ̇ο̇ά α̇δ̇ο̇ϋ̇ *βούδ̇ α̇αί̇ δ̇α̇η̇έ̇Υ̇÷̇ι̇ο̇ι̇* ο̇ε̇δ̇ δ̇ε̇Υ̇ί̇ι̇ δ̇α̇ε̇α̇δ̇ο̇ά̇βδ̇ά̇ α̇ε̇α̇ϋ̇ο̇ά̇ε̇ο̇ ο̇υ̇ι̇ α̇δ̇α̇η̇ι̇α̇ρ̇ι̇. ι̇δ̇ι̇η̇α̇βδ̇ά ιά ÷ η̇ςοείι̇ι̇δ̇ι̇ε̇ρ̇α̇δ̇ά̇ ο̇ς̇ι̇ ι̇α̇δ̇α̇α̇ε̇ς̇ο̇ρ̇ δ̇α̇η̇έ̇α̇ϋ̇ε̇ε̇ι̇ο̇ι̇δ̇ο̇ [PACKAGESITE](#) α̇ε̇ά ιά δ̇α̇η̇ά̇ε̇ϋ̇ι̇ο̇ά̇δ̇ά̇ α̇δ̇ο̇ρ̇ ο̇ς̇ι̇ δ̇η̇ι̇α̇δ̇ε̇ε̇α̇ι̇Υ̇ίς̇ ο̇δ̇ι̇δ̇α̇η̇έ̇ο̇ι̇η̇ϋ̇. Α̇ε̇ά δ̇α̇η̇ϋ̇α̇α̇ε̇α̇ι̇ά, ε̇Υ̇ο̇ι̇ι̇ο̇ά̇ ο̇ς̇ι̇ [PACKAGESITE](#) ο̇ό̇ς̇ι̇ ο̇έ̇ι̇ρ̇ <ftp://ftp.freebsd.org/pub/FreeBSD/ports/i386/packages-6-stable/Latest/> ε̇ά ε̇α̇δ̇α̇α̇ϋ̇ο̇ά̇δ̇ά̇ δ̇ά δ̇έ̇ι̇ δ̇η̇ϋ̇ο̇ά̇δ̇ά̇ δ̇αέ̇Υ̇ο̇ά̇ δ̇ι̇ο̇ ο̇δ̇ϋ̇η̇÷̇ι̇ο̇ι̇ α̇ε̇ά ο̇ς̇ ο̇ά̇ε̇η̇ϋ̇ 6.X.

IdinaBda ía áeááUoáda Báneooúoána áea oéo aeáúoáeo oíō FreeBSD oíō Ūñeñi ÁdeéYáñíoaó oç ÓúoP áea ÁoUó êáñóç oíō FreeBSD ([http://www.FreeBSD.org/doc/en\\_US.ISO8859-1/articles/version-guide/](http://www.FreeBSD.org/doc/en_US.ISO8859-1/articles/version-guide/)).

Άέά δάνεόουόαηάο δέçññοιηβáο ò÷âôééÛ ìà ôá δαéÝôá, δάηάéαεìγìá áéááÛóôâ ôçì áíüôçóá 4.4 ôòì Åã÷âénβáéì ôìò FreeBSD: ×ñçóéìñðìéπίóáò ôì Óýóôçìá 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 ääyôäñç Ýÿëäüð äëä öçí ääëäüÜðäôäç äöäñíäíäí öðí FreeBSD äáíäë ç Óðëëëäíä üüí Ports. Ç Óðëëëäíä üüí Ports äáíäë Ýíä äëäüöëí çäëöíöñäçíäí äíö äíöüäëäüðäë ääü Makefiles ëäë äñ÷äü äëäüöíñíäí (patches) öä íðíäíä Ý÷íöí äçíëíöñäçäëä äëäëëÜ, þöðä íä äáíäë äíöíäþ ç ääëäüÜðäôäç äëÜöíñíäí äöäñíäíäí öðí FreeBSD ääü öíí äçääáíäí ëþäëä öíöð. ¼öäí ääëäëëöðÜðä Ýíä port, öí öýööçíä ëä ëäöäüÜðäë öíí äçääáíäí ëþäëä, ëä äöäñíüöäë üëäð öëð äðäëöíýíäíäð äëëääÝð ÷ñçöíöíäíëíäíäð öä patches, ëä íäöäëüðöðöäë öíí ëþäëä, ëäë öÝëíð ëä ääëäöäöðöäë öçí äöäñíäíäí. Èä äëëëíðëöäë öçí ääëä äëääëäöäíä ëäë äëä íðíëääþíöðä öð÷üí äíäñöþíäíä äñíäñÜíäöä.

[illegible]

Ç ääëäôÜóôäóç áúò port äßíäë ääíëëÜ öúóí äðëP uóí ôí íá áéóÝëëäôä öóíí ëäôÜëíäí öíò ëäë íá íäëëíPóäôä öçí äëäëëëäóßá íäôääëpôðëöçð. Öóí äëüëíðëí ðánÜäëëíä äßíäôäë ääëäôÜóôäóç öíò **Apache 2.2** äðü öçí ÖðëëíäP öúí Ports:

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

já óçíáíóêéü ðeäííÝéôçíá ôçð ÷ ñÞóçð ports óçíí áäeáoÜóóáoç ëíäeóíeéíý áßíáé ç éeáíuôçóá ðñíóáñííäÞð òuì áðeéäíáí  
 áäeáoÜóóáoçð. Áeá ðáñÜáäeäíá, uóáí áäeäeéóóÜðá òíí **Apache 2.2** áðu óá ports íðñíáßòá íá áíáñäíðíeÞóáòá ôçí  
 áðeéäíáÞ **mod ldap** èÝóííóáo áðeðð òeíÞ óçç íàðáäeçðÞ **WITH\_LDAP** òíð **make(1)**:

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

Ἀεὶάποδα ὁπρὶ ἀνὺοδα 4.5 τοῦ Ἀ-ἀεῖαβιο τοῦ FreeBSD, × ηὐοῖνδρῖοδα ὁπρὶ 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)), ἁεὶ δᾶνέοοῦἀνὰ δέχνηνβὰ ο-ἀοέεῦ ἰα ὁ Οῶεῖα οὐ Ports.

### 3.3 Ports π δαέΥοά, οέ δῆΥδαέ ἰα ÷ ηὐοῖνδρῖο;

Ὁά δαέΥοά ἀβίάε οόπρὶ δῆαῖαδῶοδα ἀδῆδ δῆ-ἰαοᾶεῦδῶοῖΥἰα ports, Ὑῆα ἀβίάε δᾶνέοοῦἀνὰ εἴῖα ἀδῶεῖαδ αἰ ἀβίάε ἀδῶοῖοδ π ἀεᾶδποδαός ἀδὺ οἱ δῆαβῖ ἐπαέεα π ἀδὺ Υοῖεῖα ἀεοᾶεΥοῖα. Εὔεα ἰΥεῖαδ Υ÷ἀε δαῖαδῶδα ὁπρὶ:

#### ΔαέΥοά (Υοῖεῖα ἀεοᾶεΥοῖα)

- Δεῖ ἀνδρῆς ἀεᾶδποδαός (π ἰαοᾶεῦδῶοῖ ἰαῦεῦ ἀοᾶνῖαβῖ ἰδῖνᾶβ ἰα ἀεᾶεΥοᾶ ἀνῶδ πῆα).
- Ἀἰ ÷ ἡεῦεᾶοᾶ ἰα εᾶοᾶνᾶβδὰ δὺδ ἀβῖαοᾶ π ἰαοᾶεῦδῶοῖ τοῦ εἰαῶοῖεῖ.
- Ἀἰ ÷ ἡεῦεᾶοᾶ ἰα ἀεᾶοᾶοδπῶδᾶ ἰαοᾶεῦδῶοῖδ οῖ οὔοδῖα οᾶδ.

#### Ports (δῆαβῖο ἐπαέεα)

- Εἰαῖοδα δῆοᾶνῖαδ οὐ ἀδῶεῖαβῖ ἀεᾶδποδαός. (Ὁά δαέΥοά οῖεῦδ ἰαοᾶεῦδῶοῖα ἰα οῶδ δῆαδῶεᾶἰΥἰαδ ἀδῶεῖαδ). ἰα οᾶ ports ἰδῖνᾶβδὰ ἰα δῆοᾶνῖοᾶδ ἀεῦοῖνᾶδ ἀδῶεῖαδ, ὡδὺ ὁπρὶ ἰαοᾶεῦδῶοῖ δῆοᾶοῦ ἀνῶνῖοδ, π ἀεᾶπ ὁπρὶ δῆαδῶεᾶἰΥἰαδ εἴοδ ἀεᾶδποδαός.
- ἰδῖνᾶβδὰ ἰα ἰεᾶοᾶ οῶδ ἀεῖΥδ οᾶδ ἀεᾶᾶΥδ (patches) αἰ οἱ ἀδῶοῖαβδὰ.

Αἰ ἂρ Υ÷ἀδᾶ ἀεᾶεῖΥδ ἀδᾶοδῶοᾶ, οᾶ δαέΥοά δῶεᾶῖ εᾶ οᾶδ εᾶεῖοῖ ἰεᾶ ÷ ἂνῖ. Αἰ ὡοῦοἰ ÷ ἡεῦεᾶοᾶ ἰα δῆοᾶνῖοᾶδ εὔδῖεᾶδ ἀδῶεῖαδ, οῦδᾶ π ἰΥεῖαδ οὐ ports ἀβίάε π εᾶεῖοᾶ. (Εᾶε οῖοεᾶβδὰ, αἰ ÷ ἡεῦεᾶοᾶ δῆοᾶνῖαδ ἀεῦ δῆοῖεῖΥδᾶ οᾶ δαέΥοά, ἰδῖνᾶβδὰ ἰΥοῦ ὁπρὶ οῶεῖαδ οὐ ports ἰα οῶεῖἰᾶδᾶ οᾶ ἀεῖΥ οᾶδ δῆοᾶνῖοῖΥἰα δαέΥοά ÷ ηὐοῖνδρῖοδα ὁπρὶ αἰοῖεπ make package εᾶε αἰεᾶνῖοῖοᾶ οᾶ δαέΥοά δῖο ἀοῖεῖοᾶπῶδᾶ οᾶ Ὑεᾶ ἰπ ÷ αἰβῖαδᾶ.)

## 4 Ἀεὶβίος τοῦ Ὁοῶπῖαοῖ: Δῖο ἀβίάε οᾶ run-levels;

Ὁἰ Linux ÷ ηὐοῖνδρῖαβ οἱ οὔοδῖα ἀεὶβίος SysV, ἀπρ οἱ FreeBSD ÷ ηὐοῖνδρῖαβ οἱ δᾶᾶᾶοῖεᾶεῦ οὔοδῖα ἀεὶβίος BSD. Ὁοἱ οὔοδῖα init(8) οὔοῖο BSD, ἂἰ οδῖν÷οἱ run-levels, ἰῖοᾶ οἱ ἂν÷ᾶβῖ /etc/inittab. Αἰοβ ἁεὶ ἀοδῖ, π ἀεὶβίος ἀεῖΥ÷ἀοᾶ ἀδὺ Υἰα script ἀεὶβίος, οἱ rc(8). Το script /etc/rc ἁεᾶᾶᾶε οἱ ἂν÷ᾶβῖ /etc/defaults/rc.conf εᾶε οἱ ἂν÷ᾶβῖ /etc/rc.conf ἁεᾶ ἰα εᾶεῖνᾶοᾶε δῖεᾶδ οδῆᾶᾶδ δῆεᾶοᾶ ἰα ἰᾶεῖοἰ. ἰε οδῆᾶᾶδ ἀοδῖ ἰᾶεῖΥἰα ἰα ὁπρὶ ἀεοῖαός οὐ αἰοβῶοῖ÷οἱ script ἀεὶβίος δῖο ἂνᾶοῖοᾶε οἰοδ εᾶοᾶεῖοδ /etc/rc.d/ εᾶε /usr/local/etc/rc.d/. Ὁᾶ scripts ἀοδῖ ἀβίάε δᾶνῖεᾶ ἰα οᾶ scripts δῖο ἂνᾶοῖοᾶε οἰἰ εᾶοῖεᾶ /etc/init.d/ οᾶ οῶοδῖαδ Linux.

Ἀέας ὁδὺν ÷ ῥῶι αὖρ ὀιδρεῶσθαι ἁέα ὁά scripts ἀεβίς ὁδὺν ὀδῆς ἁέας; Ὅα scripts ὅθῳ ἁνθῶν ὁάας ὁῶις ἑῶν ὕειναι /etc/rc.d/ ἁβίᾶς ἁέα ἁῶν ἁνθῶν ὅθῳ ἁβῶν ὁῶις “ἁῶς ὅθῳ” ὁῶν ὁῶν. (ἁέα ὁῶν ὕειναι, ὁῶν cron(8), sshd(8), syslog(3), ἑῶν ὕειναι.) Ὅα scripts ὅθῳ ἁνθῶν ὁάας ὁῶις ἑῶν ὕειναι /usr/local/etc/rc.d/ ἁβίᾶς ἁέα ἁῶν ἁνθῶν ὅθῳ ὕ ÷ ῥῶι ἁῶς ὁῶν ὁῶν ἁβ ἁῶν ὁῶν ÷ ἁβῶν, ὕειναι ἁέα ὁῶν ὕειναι ἁ **Apache**, ὁι **Squid**, ἑ.ἑ.ῥ.

[illegible][illegible]

Όι άέυήρηϊ έάύοόάοίά άδύ όι άñ÷άβι /etc/rc.conf άίάñäðieäß öçí öðçñåóá sshd(8) έάέ όii **Apache 2.2**. Άðßόçò έάέñèæää üöë í **Apache** έά ίääéíßóää ίä áíääñäðieçí Ýíç öç äöíaöüöçóá SSL.

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

Ἄδῡ ὁϙ ὀόεἰἵP ḑiō iéá ὀδϙñáḑá áíáññḑiēéçēḑḑ ὀḑi ḑñ÷ḑḑi /etc/rc.conf, ḑḑñḑḑḑ ἰá ὁϙi ἰáééiḑḑḑḑ ḑḑḑḑḑḑḑ  
 ḑḑḑ ὁϙ ḑñḑḑḑ ḑiḑḑḑḑ (÷ññḑ ἰá ÷ñḑḑḑḑḑ ἰá ḑḑḑḑḑḑḑḑḑḑ ḑi ὀýḑḑḑḑ ḑḑḑ):

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

Áí íéá òðçñáòßá ááí Ý ÷ áé áíáññäíðíéçéáß óóí áñ ÷ áßí áóòü, ìðíñáßòá íá áíáíááéÚóáòá ôçí áêêßíçòç ôçò áðü ôçí áñáñíP áíòíèþí ìá ôçí áðééñäP forcestart:

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

## 5 Ñýèìéóç Äéeôýĩõ

### 5.1 ÄéåđáöÝò Äéeêôýĩõ

[illegible]

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

## 5.2 ÑõèìΒóáéò Äéãðëýíóãùí IP

ἸδρῖνᾶΒοᾶ ἰᾶ ἰᾶῖεΥᾶοᾶ ἰᾶ ἰᾶεῖοῖς IP ᾶ ἰᾶ ἰᾶᾶᾶᾶP ἰᾶᾶᾶᾶ ἰᾶ ᾶς ÷ ᾶᾶᾶς ᾶᾶ ἰᾶᾶᾶᾶ ἰfconfig(8). Ἄῆᾶ ἰᾶ ἰᾶἰᾶ ἰᾶῖῖς ἰᾶᾶᾶᾶ ἰᾶᾶP ῖ ἰᾶᾶᾶ, ῆᾶ ἰᾶ ἰῖῖ ÷ Ἰᾶᾶᾶ ᾶ ῆᾶᾶ ἰᾶᾶᾶᾶᾶᾶᾶᾶ, ῆᾶ ᾶᾶᾶ ἰᾶ ᾶῖ ᾶᾶᾶᾶᾶᾶ ᾶᾶ ἰᾶ ÷ ᾶᾶ  
 /etc/rc.conf. ᾶᾶ ἰᾶᾶᾶᾶᾶ ᾶᾶᾶᾶᾶ ᾶᾶᾶᾶᾶ ῖ ῆᾶᾶ ÷ ᾶᾶᾶς ᾶᾶ ᾶᾶᾶᾶᾶᾶᾶᾶ ἰᾶᾶ ᾶᾶ ᾶᾶ ᾶᾶᾶᾶᾶᾶᾶ  
 (hostname), ᾶῖ ἰᾶᾶᾶᾶᾶ IP, ῆᾶᾶ ῆᾶ ᾶῖ ᾶᾶᾶᾶᾶᾶᾶᾶᾶ Ἰῖῖ ᾶᾶᾶ (defaultrouter):

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

×ñçóëiïðíéÞóôâ ôçí áêüëiðêç êáôá÷þñçóç ãéá íá êáèiñßóâôâ üôé iéá áéâðáöÞ èá êáìâÛiáé ñöëißóáèò iÝòù DHCP:

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

## 6 Firewall

Όλοι Linux → η-configúρηση firewall είναι με το **IPTABLES** οι FreeBSD → με το **IPF** και οι OpenBSD → με το **PF**. Οι FreeBSD και OpenBSD έχουν firewall που είναι ενσωματωμένα στο σύστημα, ενώ οι Linux έχουν το **IPF** ως επιπλέον πακέτο.

- IPFWALL ([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))

Οι **IPFIREWALL** ή **IPFW** (ή αφορέπ ÷ ἀνελέοιρύ ουί εἰσφύουί οῖο **IPFW** ἀβιάε ή ipfw(8)) ἀβιάε οἱ firewall θῖο Ὡ ÷ ἀε  
 ἀτάθδο ÷ εἰβ εἰε οἰοίτῃαβοἰε ἀδῦ οἰί ηῖῖἕἕ ἀρῖῖθδοίτῃ οἰο FreeBSD. Οἱ **IPFW** ἰθῖηἕἕ ἰἕ οἰῖἕἕἕἕἕἕἕ ἰἕ οἱ  
 dummynet(4) ἕἕἕ ἰἕ ἕἕἕἕ ÷ ἀε ἕἕἕἕἕἕἕἕἕ ἕἕἕἕἕἕἕἕ ἕἕἕἕἕἕ ἕἕἕἕἕἕ ἕἕἕἕἕἕἕἕ (traffic shaping) εἰε ἰἕ ἕἕἕἕἕἕἕ  
 ἕἕἕἕἕἕἕἕἕἕ ὀῖθῖοδ οἰῖἕἕἕἕ ἕἕἕἕἕἕἕἕ.

ĐánÜäëàlà áíuò éáíuíá ôiõ **IPFW** ðiõ ãðëõñÝðäé áéóãñ÷:ùìáíá äääñÝíá ðñið ôçí òðçñãóá **SSH**:

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

Ὁτὶ **IPFILTER** ἁβίᾳ ἱεὶ ἀοάνῖα firewall ὅτῳ ἀιάδὸγὸόαόᾳ ἀδὺ οἷ Darren Reed. Ἀἱ Ὑ÷ᾳ ὁδᾳ÷οᾳ ἁεᾳᾳ ἁεὶ FreeBSD, ἁεὶ Ὑ÷ᾳ ἱαόαοᾳᾳ ἁεὶ οᾳ Ὑεᾳ ἁεὶοῖᾳᾳ, ὁδῖᾳᾳᾳᾳᾳᾳᾳᾳ Ὑῖᾳ οῖ NetBSD, OpenBSD, SunOS, HP/UX, ἁεὶ Solaris.

Ἐάνῤᾳᾳᾳ ἁῖᾳ ἁῖᾳ ἁεὶ οἷ **IPFILTER** ὅτῳ ἀδεὸν Ὑᾳᾳ ἁεὶᾳ ÷ ἱᾳᾳ ἁᾳᾳ Ὑῖᾳ ὅτῳ ὁγῖ ὁδῖᾳᾳ **SSH**:

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

Ἐ ὁᾳᾳᾳᾳ ἁοάνῖα firewall, οἷ **PF**, ἀιάδὸγὸόαόᾳ ἀδὺ οἷ OpenBSD project. Ὁτὶ **PF** ἁεὶοῖᾳᾳᾳ ἁεὶ ἀίᾳᾳᾳᾳᾳᾳ ὁτὶ **IPFILTER**, ἁεὶ Ὑᾳᾳ ἁ ὁγῖᾳᾳ ὁτὶ **PF** ἁβίᾳ ἁᾳᾳᾳ ἁᾳᾳῖᾳ ἱᾳ ἁᾳᾳ ὁτὶ **IPFILTER**. Ὁτὶ **PF** ἱᾳᾳᾳ ἱᾳ ὁῖᾳᾳᾳᾳ ἱᾳ οἷ altq(4) ἁεὶ ἱᾳ ἁᾳᾳ ÷ ἁεὶ ὁδῖᾳᾳᾳ ὁγῖᾳ QoS.

Ἐάνῤᾳᾳᾳ ἁῖᾳ ὁτὶ **PF** ὅτῳ ἀδεὸν Ὑᾳᾳ ἁεὶᾳ ÷ ἱᾳᾳ ἁᾳᾳ Ὑῖᾳ ὅτῳ ὁγῖ ὁδῖᾳᾳ **SSH**:

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

## 7 Ἀἱᾳᾳᾳᾳᾳ ὁτὶ FreeBSD

Ὁδῖᾳ ÷ ὁτὶ ὁᾳᾳ ἁεὶ ὁγῖ ἀἱᾳᾳᾳᾳ ἁῖᾳ ὁᾳᾳᾳᾳᾳ FreeBSD: Ἰῖᾳ ὁτὶ ὁᾳᾳᾳ ἁᾳᾳᾳ, Ἰῖᾳ Ὑᾳᾳᾳ (binary) ἀἱᾳᾳᾳᾳᾳ, ἁεὶ Ἰῖᾳ οῖ CD ἁᾳᾳᾳᾳᾳᾳᾳᾳ.

Ἐ ἁᾳᾳᾳᾳᾳᾳ Ἰῖᾳ ὁτὶ ὁᾳᾳᾳ ἁᾳᾳᾳ ἁβίᾳ ἁ ὁῖ ὁῖᾳᾳᾳ, ἁεᾳ ὁᾳᾳ ὁᾳᾳᾳᾳ ἁεὶ ὁ ἱᾳᾳᾳᾳᾳ ἁᾳᾳᾳᾳ. Ἐ ἁᾳᾳᾳᾳᾳ ἁᾳᾳ ὁᾳᾳᾳᾳᾳ ὁτὶ ὁᾳ ÷ ἱᾳᾳᾳ ὁτὶ ὁᾳᾳᾳ ἁᾳᾳᾳᾳ ὁτὶ ὁᾳᾳᾳᾳ ὁᾳᾳᾳ ὁτὶ FreeBSD ἱᾳ οἷ ἁᾳᾳᾳ ὁτὶ FreeBSD ὁτὶ ἁᾳᾳᾳᾳ ὁᾳᾳ ἁᾳᾳᾳᾳᾳᾳ **CVS** (Concurrent Versioning System). Ἀδὺ ὁ ὁᾳᾳᾳ ὁτὶ ὁᾳᾳᾳ ἁᾳᾳᾳᾳᾳ ὁᾳᾳᾳ ἁβίᾳ ἀἱᾳᾳᾳᾳ, ἱᾳᾳᾳᾳ ἱᾳ ἱᾳᾳᾳᾳᾳᾳᾳ ἱᾳ ἁᾳᾳᾳᾳ ὁτὶ ὁᾳᾳᾳ ἁεὶ οῖ ἁᾳᾳᾳ ὁᾳᾳᾳᾳᾳᾳ. Ἀεὶ ὁᾳᾳᾳᾳᾳᾳ ὁᾳᾳᾳᾳᾳ ὁ ÷ ἁᾳᾳᾳ ἱᾳ οἷ ὁγῖᾳᾳ ἀἱᾳᾳᾳᾳᾳ Ἰῖᾳ ὁᾳᾳᾳ ἁᾳᾳᾳ, ἁᾳᾳᾳ ὁ ἁᾳᾳᾳ Ἀἱᾳᾳᾳ ἁᾳᾳ Ἀἱᾳᾳᾳᾳᾳ (http://www.FreeBSD.org/doc/el\_GR.ISO8859-7/books/handbook/updating-upgrading.html) οἷ Ἀ ÷ ἁᾳᾳᾳ ὁτὶ FreeBSD.

Ἰε Ὑᾳᾳᾳ (binary) ἀἱᾳᾳᾳᾳᾳ, ἁβίᾳ ἁᾳᾳᾳᾳ ἱᾳ ὁ ÷ ἡΠόγ ὁᾳ ἁᾳᾳᾳ yum P apt-get ἁεὶ ὁγῖ ἀἱᾳᾳᾳᾳ ἁῖᾳ ὁᾳᾳᾳᾳᾳ Linux. Ἐ ἁᾳᾳᾳ freebsd-update(8) ἁ ἁᾳᾳᾳᾳ ὁᾳ ἀἱᾳᾳᾳᾳᾳ ἁεὶ ἁ ὁᾳ ἁᾳᾳᾳᾳᾳᾳ. Ἰᾳᾳᾳᾳ ἱᾳ ἁᾳᾳᾳᾳᾳ ὁγῖ ἁᾳᾳᾳᾳ, ἁᾳ ὁᾳᾳ ἁᾳᾳᾳᾳ ἁᾳᾳᾳᾳ ὁᾳ ὁ ÷ ἡΠόγ ὁτὶ cron(8).

**Ὁγῖᾳᾳᾳ:** Ἀ ὁᾳᾳᾳᾳ ἱᾳ ÷ ἡᾳᾳᾳᾳᾳᾳ ὁτὶ cron(8) ἁεὶ ὁᾳᾳᾳᾳᾳᾳᾳᾳ ἀἱᾳᾳᾳᾳᾳ, ἁᾳᾳᾳᾳᾳᾳ ὁᾳ ÷ ἡᾳᾳᾳᾳᾳᾳ ὁγῖ ἁᾳᾳᾳ freebsd-update cron οἷ ἁᾳ ÷ ἁᾳ crontab(1) ἁεὶ ἱᾳ ἁᾳ ÷ ὁᾳᾳᾳᾳᾳ ἁ ὁᾳᾳᾳᾳ ἁἱᾳᾳᾳ ὁγῖ ἁᾳᾳ ὁᾳᾳᾳ ἁδὺ Ὑῖᾳ ἱᾳᾳᾳ ἁᾳᾳᾳ ἱᾳ ÷ ἁἱᾳᾳᾳ.

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

Ἐ ὁᾳᾳᾳᾳ ἁᾳᾳᾳ ἀἱᾳᾳᾳᾳᾳ, Ἰῖᾳ οῖ CD ἁᾳᾳᾳᾳᾳᾳ, ἁβίᾳ ἁᾳᾳᾳ ἱᾳᾳᾳᾳ. Ἀᾳᾳ ἁᾳᾳᾳᾳ ἁδὺ οἷ CD ἁᾳᾳᾳᾳᾳ ἁεὶ ἁᾳᾳᾳᾳ ὁγῖ ἁᾳᾳᾳᾳ ÷ ἁᾳᾳᾳ ἀἱᾳᾳᾳᾳᾳ (upgrade).

## 8 procfs: Ἐᾳᾳᾳᾳᾳ ἁᾳᾳ ὁ ÷ ἱᾳ ÷ ἁᾳᾳᾳ

Ὁτὶ Linux, ἁ ÷ ἁᾳᾳᾳᾳ ἱᾳ ἁᾳᾳᾳ οἷ /proc/sys/net/ipv4/ip\_forward ἁεὶ ἱᾳ ἁᾳᾳᾳᾳᾳ ἁ ἁβίᾳ ἁᾳᾳᾳᾳᾳᾳᾳ ἁ ὁᾳᾳᾳᾳ IP (IP forwarding). Ὁτὶ FreeBSD ἁ ὁᾳᾳᾳ ἱᾳ ÷ ἡᾳᾳᾳᾳᾳᾳ ὁτὶ sysctl(8) ἁεὶ ἱᾳ ἁᾳᾳᾳ

αἰὸν ἐὰν Ὑπεῖον ἡὐεῖβῶαῖον οἶον ὁῶῶῶΠῖαῖον, ἐὰν οἱ προφς(5) ἐαὐῖαβῶαῖ ὁαῖν÷çῖΥῖ ὁαῖ ὁῖνῶῶαῖ ἁῖαῖῶαῖ οἶῶ  
ἐὰν οἶῶῖῶῖῶ. (Αῖ ἐὰν ç αῖῶῖῶ sysctl ἁβῖαῖ ἁδβῶç ἁῖῖῶῖῶ ἁῖῖῶῖῶ ἐὰν ὁῖῶ Linux).

Όλοι θαπὺἀεταῖα ὁδε διηπεροχοῖ IP, ἐὰ ÷-ἡχοεῖνδιείρύομαι ὁεῖ ἀεὺεῖοδε ἀφῖεP ἀεῖ ἰά ἐαεῖνβόιοῖα ἀί εἰ ἀοῖαδουεῖα ἀοδP ἀβῖαεῖ ἀῖἀῖνδιεῖα Ὑῖε ὅα Ὑῖα FreeBSD ὀγῶεῖα:

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

Ç åđéeĩãP -a ÷ñçóéiĩđĩéãßôáé ãéá íá ðŨñĩõĩã ìéá ëßóóá ìã üëãð ôéð ñõèìßóãéð õĩõ óõóôPĩáõĩò:

```
% 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: ÊÜðíεαò áðü öéo ôéíÝò ðĩö äãß÷íáé ç áíôîÊP<sub>sysctl</sub> áßíáé ìüñ äéá áíÜáíüóç.

[illegible]

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

**Ὁγιαβυός:** Ὡ ἀθέειᾱP noauto ἐὰ ἀιδιᾱβόἀε ὁγί ἀδδὺιδός δῆϊοὔḡḡḡḡ ὅϊḡ /proc ἐὰδὺ ὁγι ἀέἐβίγος ὀϊḡ ὀδḡḡḡḡḡḡḡ.

ĐñiáoãñôPóoã éáôuđéí ôcí procfs ÷ñcôëiüđiépíôáò ôcí áéüëiüôëç áíôieP:

```
# mount /proc
```



## 9 ÓõíçèéóìÝíàò ÁíôïëÝò

### 9.1 Äéá÷ãßñéóç ÐáêÝôùí

ΆίόίēΠ ôĩō Linux (Red Hat/Debian)	Άίόβôôίē÷ç αίόίēΠ FreeBSD	Óēīōüò
yum install <i>package</i> / apt-get install <i>package</i>	pkg_add -r <i>package</i>	ΆāēāôÜóôáoç δāēÝôĩō áðü áðñāēñôôĩÝñĩ αίôðçñāôçôð
rpm -ivh <i>package</i> / dpkg -i <i>package</i>	pkg_add -v <i>package</i>	ΆāēāôÜóôáoç δāēÝôĩō
rpm -qa / dpkg -l	pkg_info	Ëβóóá āāēāôāóôçĩÝñüĩ δāēÝôüĩ

## 9.2 Αέρας: αβήεός ΌόόΠιάôïò

ΆίϊϊέP Linux	Άίϊβόόϊέ÷ç αίϊϊέP FreeBSD	Όέϊδϋò
lspci	pciconf	Έβόόά όόόέâïþ PCI
lsmod	kldstat	Έβόόά öïñòùìÝñí áñēñùìÛòùí ðõñPíá
modprobe	kldload / kldunload	Öüñòùòç/Áðñöüñòùòç áñēñùìÛòùí ðõñPíá
strace	truss	Άίβ÷íáðóç êēPóáùí óóóðPíáðïð

# 10 ÓõìďǎñŮóíáôá

Ἀοὰεδεοοίγία υοε αοοῦ οἱ εαβιαῖοι οαο δαηάβ÷α ἀηεαοὺδ δεχνηοἰηβαο αεά ιά ιαεείοαοα ια οἱ FreeBSD. Ἀεά δαηεοοοαηαο εαε δεῖ εαδῶηαηαβο δεχνηοἰηβαο, δαηαεαεγία ιά αεαάὺοαοα οἱ Ἀα÷αεηβαεῖ οἱο 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)) οἱ ιῶἱβῖ ἀδβόοο δαηεὺ÷αε εαε δῖεεὺ ἐὺαοα δῖο ααῖ εαεγὺεεαῖ εαεεεῖο οοῖ δαηῖ εαβιαῖοι.