



# 1 ÅéóáãùãƆ

Οι εαβλαίη άόδου οίηβææέ όέδ άεάοιηÝδ ίάδαιý όιθ FreeBSD έάέ όιθ Linux ίόόά ίÝόιέ Þ ðñì÷ ùñçìÝñíé ÷ ñÞόόάδ όιθ Linux ίά ίδññíýí ãñÞáññά ίά ðñìόáññίόόίýί όόέδ ááόέéÝδ Ýñííεάδ όιθ FreeBSD. Ðñüêæάόάέ áéá ίεά όá÷ ίέéÞ áéόάüüáÞ όόι FreeBSD, έάέ ááί έά áíάόáñèñýìá όá όθ÷ úí “όέéíóíόééÝδ” áéάοιηÝδ ίάδαιý όúí áýí όόόόçìÝÜóúí.

Öi êãñîãñi áóòü òðìëÝóâê üóê Ý÷ãòâ Þäç äãêáóáóóÞóâê òì FreeBSD. Áí äãí Ý÷ãòâ äãêáóáóóÞóâê òì FreeBSD Þ ÷ñãêÜëáóóâ ãñÞëáêá íä öçí äëääêéáóá äãêáóÜóóáóóö òìö, ðãñãêáëýíýíá íá äëáÜóóáð òì êãóÜëáêí ÁãêéêéóóÞñóáð òì 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)) óòì Áã÷ãëñßäêí òìö FreeBSD.

## 2 Êâëýöç: Ääí õðÛñ÷âé Bash;

[illegible][illegible]

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

Ἄεθου ἀδὺ ὄγι θανάτιοέλεπ IYeiai ἡαέαόÜöóáoçð εἰάεοίεέρυ öiro UNIX® (έαόYááoía öiro ðçāāBiö epäééā, áðróoiðBáoç öiro āñ÷āBiro, āðāīānāáoBā éáé īāóāēþóðeóç), öi FreeBSD ðnióóYñāé āyí áeuūā īāeuūiòð áéā ὄγí ἡαέαόÜöóáoç äóāniīāþí: óā ðáéYóā éáé óā ports. Ἀέα léā ðēPñç ēßóóā üeuū öui áéáéYóeüir ðáéYóuir éáé ports, āāBōā āāþ (<http://www.freebsd.org/ports/master-index.html>).

### 3.1 ĐấêÝôá

Όά θαέΎόά αβίαέ δñĩ-iaóaaèuóóéoiΎiaó aóanĩāΎó, èá èΎāaĩ oĩ aíobóoié÷ĩ aéá oĩ FreeBSD ouĩ añ÷āBuĩ .deb óá óóóóPiaóá Debian/Ubuntu éáé ouĩ añ÷āBuĩ .rpm óá óóóóPiaóá Red Hat/Fedora. Όά θαέΎόά āāēāēbóóáíóāē ÷ñcóēñdiēpíóáó óci aíoiēP pkg\_add(1). Áéá dánŪāāēāĩ, ç āēuēiōèç aíoiēP āāēāēéóóŪ oĩĩ **Apache 2.2**:

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

Ç ÷ ñΠός όçò ðáñáíÝíñíð ÷ ñ ääçääß öçí pkg\_add(1) íá éáóääÜóää äóðüíáóá öüóí öí ðáéÝöí, üóí éáé öéð áíáñðΠóáéð öíð. éáé íá öí ääéäóáóóðΠóáé:

```
# 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.

**Όγιβαθός:** Άί ÷ ñçóëííðíëáßðá íëá “äðßçíç” Ýëäíóç ðíð FreeBSD (6.2, 6.3, 7.0, ëëð. ðíð äáíëëÜ ðíñáßðá íá ääëáðáðßðáðá äðÜ CD-ROM) ç áíðíëß pkg\_add -r ëá ëáðäáÜðáë óá äáëÝðá ðíð ððëÜ÷÷çëáí äëá äððß çç ððäëäëñëíÝíç Ýëäíóç. Óá äáëÝðá äððÜ *ßóóð äáí ðäñëÝ÷íð* ðëð ðëÝíí ðäëäððáßðð äëäüðáëð ðñí äðáñííäíð. ðíñáßðá íá ÷ ñçóëííðíëáßðáðá ççí íäðáäëçðß ðäñëáÜëëííððð `PACKAGESITE` äëá íá ðäñáëÜíððáðá äððß ççí ðñíäðëëäáíÝíç óðíðäñëëííÜ. Äëá ðáñÜÜäëäíá, ëÝðííðáð ççí `PACKAGESITE` óççí ðëíß <ftp://ftp.freebsd.org/pub/FreeBSD/ports/i386/packages-6-stable/Latest/> ëá ëáðäáÜðáðá ðá ðëí ðñüððáðá äáëÝðá ðíð ððÜñ÷íðí äëá çç óáëñÜ 6.X.

IdinaBda ía áéaaÜöaöa ðanéooüöaäa áéa öéo áéäüöáoö öiö FreeBSD öiö Üñeñi ÁðeeYáñíöáo öç ÖúöP áéa ÁöÜö êäñöç öiö 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 θάνέοούοάναό δεçñrοiñßáο ó÷:âôééÛ iá ôá ðáéÝôá, ðánaéæïýiá æéááÛóôá ôçí áíuôçóá 4.4 ôôï Åã÷:æññßæí ôiô  
FreeBSD: ×ñçóéiñðiépíóáó ôi Óýóôçiá 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 ääýðáñç Ýíëëáñð äëá ðçí äëäëðÜððáðç äðáññíáñí ððí FreeBSD äáñíáç ç Óðëëëíáñ ðñí Ports. Ç Óðëëëíáñ ðñí Ports äáñíáç Ýíá ðëáððéí ëäëðíðñäëñí ðñí äñíððäëäððáç äðñ Makefiles ëäé äñ÷ äáá äëäðññí (patches) ðá ïðñáá Ý÷íðí äçíëíðñäëä äëäëëÜ, ðððá íá äáñíáç äñíáðç ç äëäëðÜððáðç äëÜñññí äðáññíáñí ððí FreeBSD äðñ ðñí ðçäááñ ëðäëéä ðñðð. ¼ðáí äëäëëëððÜðá Ýíá port, ðí óýððçíä ëä ëäððäÜððáç ðñí ðçäááñ ëðäëéä, ëä äðáññññáç ùëðð ðëð äðäëðñíñíáñð äëëäáÝð ÷ñçóñíðñíëíððáð ðá patches, ëä ïäððäëñððððáç ðñí ëðäëéä, ëäé ðÝëíð ëä äëäëððáðððáç ðçí äðáññíáñ. Èä äëëíëðððáç ðçí Ñäéä äëääëéäðáá ëäé äëä ïðñëäáððñðá ðð÷ ùí äñáñðñíáíá ðññññÜññáðá.

Ιδινηάβθα ία άνηάβθα όγι ΌόέειρΠ όυι Ports (ς ιθίβα ίανέέΥδ όινΥδ άράόΥνηάοάέ έάέ υδ “άΎίονι όυι ports”), όοιί έάόÜετρί /usr/ports. Άόού άΎάάέα δνιüδτεΥόάέ υδó άέάόάόόΠόάόά όγι ΌόέειρΠ όυι Ports έάόÜ ός άέÜñέάά όςδ άέάόÜόόάόςδ όιö FreeBSD. Άί άάι όι Υ÷άό έÜíää, ιδίνήάβθα ία όγι δνιόέΥόάόά άδυ όι CD άέάόÜόόάόςδ ία όγι άìΠεάά όιö sysinstall(8) Π ία όγι έάόääÜόάόά άδυ όιöδ άιöδςñάόςδΥδ όιö FreeBSD ÷ñςόείüδτερίπόάδ όςί άίόιεΠ csup(1) Π όγι άίόιεΠ portsnap(8). Ιδίνήάβθα ία άνηάβθα έäðññññßð íäçåßað äéá όγι άέάόÜόόάός όςδ ΌόέειρΠ όυι Ports όόγι άíüöçôá 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)) όιö άä÷ääñéäßïð.

Ç ääëäóÜóóäóç áíüò port äßíäë ääíëëÜ öüöí äðëP uóí öí íá áéóYëëäöä öüíí éäöÜëíäí öíö éäé íá íäëéíPóäöä öçí äéäáééäößá íäöääëpöðéöçò. Ööí äëüëíöëí ðánÜääëíä äßíäöäé ääëäóÜóóäóç öíö **Apache 2.2** äðu öçí ÖöëëíäP öüí Ports:

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

```

já óçíáíóéëü ðëáñíÝéôçíá ôçð ÷ ñÞóçð ports óôçí áâëáðÛóóáóç ëíáéóíëéíý áßíáé ç ééáíúôçóá ðñíóáñíñáÞð òùí áðéëëáßí
áâëáðÛóóáóçð. Áéá ðáñÛááëáíá, ùóáí áâëáéëóóðÛóá òíí Apache 2.2 áðü óá ports ðíññáßóá íá áíáññáðíëíóáðóá ôçí
áðéëëáß mod ldap èÝóñíóáð áðëþð òëíÞ óôç íáðááëççðÞ WITH_LDAP òíð make(1):

```

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

ΆεάáŨóôâ ôçí áíuôçôá 4.5 ôĩô Åã÷:áéñéãβĩô ôĩô FreeBSD, ×ñçóëĩĩôĩéπĩóáô 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)), ãéá ðãñéóóũôãñãô ðëçñĩĩôĩñβãô ó÷:âôëêŨ ìâ ôç ÓôëëĩãP ôuĩ Ports.

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

Ὁ ἁ ἐκ τῆς ἀβραάμ οὐκ ἔστιν ἀλλὰ ἐκ τοῦ κυρίου καὶ τοῦ θεοῦ καὶ τοῦ ἁγίου πνεύματος, ὁ ἁ ἐκ τῆς ἀβραάμ οὐκ ἔστιν ἀλλὰ ἐκ τοῦ κυρίου καὶ τοῦ θεοῦ καὶ τοῦ ἁγίου πνεύματος, ὁ ἁ ἐκ τῆς ἀβραάμ οὐκ ἔστιν ἀλλὰ ἐκ τοῦ κυρίου καὶ τοῦ θεοῦ καὶ τοῦ ἁγίου πνεύματος. Εὐχαριστοῦμεν ὑμᾶς πάντοτε ὑπὲρ πάντων ἐν ὀνόματι τοῦ κυρίου καὶ τοῦ θεοῦ καὶ τοῦ ἁγίου πνεύματος, ὁ ἁ ἐκ τῆς ἀβραάμ οὐκ ἔστιν ἀλλὰ ἐκ τοῦ κυρίου καὶ τοῦ θεοῦ καὶ τοῦ ἁγίου πνεύματος.

## ĐáeÝôá (Ýôïëìá àêôãëÝóéìá)

- [illegible]

## Ports (öçääßïò êpääêâò)

- [illegible]

Αἱ αἰεὶ ὦ ÷ ἀὸα ἀεἰεὶ ὦδ ἀδᾶεὸρῶαεδ, ὁὰ δᾶεὶ ὦὰ δᾶεἰαῖρ ἐὰ ὁὰ ἐαέγῳρῶρ ἰεᾶ ÷ ἄνῦ. Αἱ ὁὀουοῖ ÷ ἡᾶεὶ ὦαῶαῖ ἰὰ  
 ὀηῶαῖηιουῶαὸ ἐῦδῖεῶδ ἀδᾶεῖα ὦδ, ὀουῶα ῥ Ἰέῖεῖῶδ ὀυῖ ports ἄβῖαῖ ῥ ἐαέγῳᾶῇ. (Ἐᾶ ἐδῖεᾶβῶα, αἱ ÷ ἡᾶεὶ ὦαῶα  
 ὀηῶαῖηιῶβ ἄεεὶ ὀηῶεῖ ὦῶα ὁὰ δᾶεὶ ὦὰ, ἰδῖῇᾶβῶα Ἰ ὦῶ ὀεῶ ὀῶεῖῶβδ ὀυῖ ports ἰὰ ὀῶεὶ ὦᾶῶα ὁὰ ἄεεὶ ὁὰ  
 ὀηῶαῖηιῶρ Ἰ ἰᾶ δᾶεὶ ὦὰ ÷ ἡῇῶεῖῶδῖεῖῖῶδ ὀεῖ ἰῶῖῶεῖ make package ἐᾶ ἰῶεᾶῇ ὦῶῖῶῶδ ὁὰ δᾶεὶ ὦὰ δῖῶ ἄεῖῶῇᾶβῶῶα  
 ὁὰ ὦεᾶ ἰε ÷ ἄβῖαῶα.)

#### 4 ΑέεΒίçóç ôĩõ ÓóóôΠιάôĩò: Ðĩõ αβίαέ ôά run-levels;

Οι Linux ÷ ηςοείηθιέαβ οι όγούοία âêêßícòð SysV, âñ οι FreeBSD ÷ ηςοείηθιέαβ οι θάηάηιόεαêü όγούοία âêêßícòð BSD. Όοι όγούοία init(8) όγθï BSD, ââï òðÛñ÷ïï run-levels, ÿòâ òï âñ÷âßï /etc/inittab. Áíòß âέα äòðÛ, ç âêêßícòç âêÿâ÷âòâέ äðü Ýíá script âêêßícòç, òï rc(8). To script /etc/rc âέαÛÛæâέ òï âñ÷âßï /etc/defaults/rc.conf êάέ òï âñ÷âßï /etc/rc.conf âέα íá êâèñßòâέ ðιέαð òðçñâòßð ðñùêâέòâέ íá ïâέέïßïïï. Ìέ òðçñâòßð äòðÛð ïâέέïÛíá ïâ òçï âêòÿέâç ðñï áíòßòïê÷÷ñï script âêêßícòç ðïò âñßòêñïάέ òòïðð êάòâêñïðð /etc/rc.d/ êάέ /usr/local/etc/rc.d/. Óá scripts äòðÛ âßíάέ ðáñññíέα ïâ òá scripts ðïò âñßòêñïάέ òòïï êάðÛêññï /etc/init.d/ òâ òðòðßíðά Linux.

Ἀέάββ ὀδῦñ÷ῖοι ἄγρ ὀδιῖῖῖῖῖῖῖ Ἀέά ὀά scripts Ἀέῖῖῖῖῖῖ ὀυῖ ὀδῖῖῖῖῖῖ; Ὀά scripts ὀῖῖ Ἀñῖῖῖῖῖῖῖ ὀῖῖῖ ἑῖῖῖῖῖῖῖ /etc/rc.d/ Ἀῖῖῖῖ Ἀέά Ἀῖῖῖῖῖῖῖῖῖ ὀῖῖ Ἀῖῖῖῖῖῖ ὀῖῖ “Ἀῖῖῖῖῖῖ” ὀῖῖῖῖῖῖ. (Ἀέά ὀἈñῖῖῖῖῖῖῖ, ὀῖῖ cron(8), sshd(8), syslog(3), ἑῖῖ ῖῖῖῖῖῖῖ.) Ὀά scripts ὀῖῖ Ἀñῖῖῖῖῖῖῖ ὀῖῖῖ ἑῖῖῖῖῖῖῖ /usr/local/etc/rc.d/ Ἀῖῖῖῖ Ἀέά Ἀῖῖῖῖῖῖῖῖῖ ὀῖῖ ῖῖ÷ῖοι Ἀῖῖῖῖῖῖῖῖῖῖ Ἀῖῖ ὀῖῖῖ ÷ñῖῖῖῖῖῖ, ῖῖῖῖ Ἀέά ὀἈñῖῖῖῖῖῖῖ ῖ **Apache**, ὀῖ **Squid**, ἑ.ἑ.ῖ.

Διέα ἀβιάε ς εἰάοῖνῸ ἰαόάτῃ οῖο “ἀαόεῖῃ” ὁδὸδΠιάοῖο ἐαέ οὐὶ ἀοάνῃῃῃ ÷ ñPόδς; Οῖ FreeBSD αἰάδὸγὸάοάέ ὑὸ ῃῃ ῃῃ ðPñāð εἰάοῖοñἔεῃ οῃγὸόçἰἃ. ἰἃ Ὸεἃ εῦἔἃ, ἰ ðñPῃἃ, ἰε ἃἔἔεῃPἔἃ οῖο ὁδὸδΠιάοῖο, ἰε ἃαόέῃῸ ἃῖοῃῃῸ (userland, ὁἃ ðñῃῃῃῸἃἃ ὐδὸδ οῖ ls(1), cat(1), cp(1) ἔἔð.), αἰάδὸγὸοῖῃἃἃ ἔἃἃ ἄῃῃῃἃῃῃἃἃ ἰἃἃἃ, ὑὸ οῃῃῃ. Ἀόοῃ αἰάῃῃñἃἃἃ ἔἃἃ ὑὸ “ἃαόέῃ” οῃγὸόçἰἃ. ἰἃ ἃἃῃῃῃῃῸ ὅῖο ἃἃἃἃἃἃἃἃἃἃ ἃῃῃ ὅῖο ÷ ñPόἃἃ, ἃἃ ἃῃῃῃῃ ὁῖ “ἃαόέῃ” οῃγὸόçἰἃ, ἔἃἃ ὁῃῃἃἃ ἃῃἃ ἃἃ ᰇῃῃῃἃἃ ἰ **Apache**, ὁῖ **X11**, ἰ **Mozilla Firefox**, ἔἔð. Ἀόῃῃ ὅῖο ἃῃῃῃῃ ἰἃ ἃἃῃῃῃῃῸ, ἃῃῃῃ ἃἃἃἃἃἃἃἃἃἃ ἰἃ ὁç ÷ ñPόç ὁçð Ὀῃῃῃῃῃ ᰇἃἃῃῃῃ ἔἃἃ Ports (article.html#SOFTWARE) ὅῖο FreeBSD. Ἀἃἃ ἰἃ ἰἃ÷ῃñῃῃῃῃ ἃῃῃ ὅῖ ὁῃῃῃῃῃ “ἃαόέῃ” οῃγὸόçἰἃ, ἰἃ ἃἃῃῃῃῃῸ ÷ ñPόδς ὁῖῃῃῃ ἃἃἃἃἃἃἃἃἃἃ ὁἃ ὁῃῃἃἃἃἃἃῃῃῃ ὅῖο /usr/local/. ὁῃἃ ὁἃ ἃἃἃῃῃῃῃ ᰇῃῃῃῃῃῃῃ ὁῖ ÷ ñçὀῃῃ ἃñἃἃῃῃἃἃ ὁῖῃῃῃ ἃἃῃῃῃῃῃῃ ἃἃῃῃῃῃῃῃῃ ὅῖο /usr/local/bin/, ὁἃ ἃῖὀἃἃῃῃ÷ἃ ἃñ÷ἃῃ ᰇἃῃἃἃῃῃ ὅῖο ὁῖῃῃῃ ἃἃῃῃῃῃῃῃ /usr/local/etc/, ἔ.ἰ.ἔ.

[illegible]

Οἱ ἀεὺἐρὸἐῖ ᾠδὴοῦδαοῖα αὔθι οἱ ἀν÷ὰβι /etc/rc.conf ἀἰἀναῖδιέαβ ὁçí òðçñάóßá sshd(8) ἐαé οἷῖ **Apache 2.2**. Ἀðβόçò  
ἐαèñβæäë υῶē ī **Apache** èà ἱαéειΡóaë ἰà ἀἰἀναῖδιέçῐÝῐç ὁç äöíaðuðüçôá SSL.

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

Ἄδῡ ὁϗ ὀόεἰῖP ḑiō iéá ὀḑḑñáḑá áíáññāḑiēéçēḑḑ ὀḑi ḑñ÷ḑḑi /etc/rc.conf, ḑḑññḑḑ ἰá ὀḑi ḑḑééḑḑḑḑḑ ḑḑḑḑḑḑḑ  
 ḑḑḑ ὁϗ ḑñḑḑḑP ḑiḑḑḑḑ (÷ḑñḑ ἰá ÷ñḑḑḑḑḑ ἰá ḑḑḑḑḑḑḑḑḑ ὀi ὀḑḑḑḑḑḑ 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 áñáñìÞ áíòíèþí ìá ôçí áðééñáÞ forcestart:

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

## 5 Ñýèìéóç Äéeôýĩõ

## 5.1 ÄéåđáöÝò Äéeôýĩõ

Άϊός άέά ôï άαίέêü áíááññέóóéêü ôýðïò *ethX* ðïò ÷ñçóéïíðïέάß ôï Linux áέá ôçí áíááññέóç íέáð áέáðáðð áέέðýïð, ôï FreeBSD ÷ñçóéïíðïέάß ùð áíááññέóóéêü ôï ùññá ôïð ðññáñÙñáôïð íáßαçóçð áέíεíεíεýíáñ áðü Ýíá áñέέíü. Ç áέúεíεç Ýññáð áðü ôçí áíôïðê ífconfig(8) áάß÷íáέ áýí êÛñðáð áέέðýïð Intel® Pro 1000 (íá áíááññέóóéêéÛ em0 and em1):

```
% 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 ÑõèìΒóåéò Äéåðëýíóåùí 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 éaiâÜíáé ñöèißóáèò iÝòù DHCP:

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

## 6 Firewall

Όλοι Linux → ηνζοείνιείάβθαάε οι **IPTABLES** οι ιδιβι θάνΥ → άε οδζηάοβθο firewall οά άδβθάάι δθνΠρί. Οι FreeBSD θάνΥ → άε άδβθόδ firewall ιΥού οιο δθνΠρί. Άέα όγι άέηβάάέα, οι FreeBSD θάνΥ → άε οηβά 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 ôïð IPFW ðïð aðëônÝðäé áéoãñ÷üìáíá äääñÝía ðñïð ôçí òðçñáoßá SSH:**

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

Ôi **IPFILTER** ábíáé íéá áóáníāP firewall ðŕō áíáðŕŕóóáóáé áðŭ ôíí Darren Reed. Äáí Ý÷-áé ööéá÷-ðáß áéáéÜ áéá ôí FreeBSD, éáé Ý÷-áé íáðóáññéáß éáé óá Üëëá éáéðíŕñáéÜ, óðíðñééäíâááŕmÝíúí ðùí NetBSD, OpenBSD, SunOS, HP/UX, éáé Solaris.

ĐánŨäâëàíà áíüò êáíuíá ãéá ôí **IPFILTER** ðĩõ ãđéõñÝđăé áéóăñ÷:ùiáíá áăăñÝíá ðñĩò ôçí òđçñăóáá **SSH**:

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

Ç òàèãòòàáá àòàñìràP firewall, òì **PF**, áíáðóýòóòàéé áðü òì OpenBSD project. Ôì **PF** açìérìòñãPèçèà ùò áíòééáòáóòÜòçò òìò **IPFILTER**, éáé Ýóóé ç óýíòáç òìò **PF** ááíáé áñèêòÜ 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 ãðéônÝðäé áéóañ÷ùiáíá äääiñÝíá ðñiò ôçí õðçñáóßá **SSH**:

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

## 7 Άίαâáèìβæïĩôáò 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 äñððéäðäé ðóìðð äìððçñäðçðÝð CVS (Concurrent Versioning System). Äðù ðç ððéäìP ðìò òì òìðéèù áíðâñäðì ðçäâðìò èðäéä äâðäé äíáíäùÝñ, ìðñâððä ìä ìäðäæùððððäðä ìÝäð äæäùäæð òìò ððñPíä éäé ðùí ääðéèP ðñìäñäìÛðùí. Äéä ðäñéðóóððäñäð ðççñìòìñâðð ð÷äðéèÛ ìä òì óýððçíä äíáäÛèìéðçð ìÝóù ðçäâðìò èðäéä, äâððä òì èäðÛèäéí ÄìçìÝñùðç éäé ÄíáäÛèìéðç ([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)) ðòì Ää÷äéñâäéí òìò FreeBSD.

Ίε Υόιειάο (binary) αίαάειβόαέο, αβίαέ δάνυιρέαο ιά ος ÷ñΠός οςο αίοιρέΠο yum P apt-get αέα οςι αίαάΥειέος αΐυο  
 οόοόΠιάοιò Linux. Ç αίοιρέP freebsd-update(8) έα έαόάΥόαέ οέο αίαάειβόαέο έαέ έα οέο αάεάοάοόΠοάέ. Ιδιñαβόα ιά  
 έαειñβόαόα οςι αόδυιάος, αΐΥ όαέοΥ έέαόόΠιάόά αέοΥέαός οςό, ιά ος ÷ñΠός οίο cron(8).

**Όγιὰβυός:** Αί δñüēάέόάέ íá ÷ ñçόέííðíéΠάάðά ðí cron(8) áέά ðñĩāñáííáðéóéÝíàð áíáááèìßóáέó, ááááéùèáßðá üóé ÷ ñçόέííðíéáßðá όγι áíðíēΠ freebsd-update cron όðí áñ÷:áßí crontab(1) áέά íá áέá÷:έóóíðíéçέáß ç ðέéáíüðçόά íá áßíáóáέ áíáíÝüόç όγι Βάέά όóéáìΠ áóü Ýíá íáäÜēí áñέèìü ïç÷:áíçÜòüí.

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

Ç öâëãöôâáá äðëëïãP áíááÛëíóçð, ìÝòù òùì CD äãëáðÛóóáóçð, âáíáë äñëãðÛ íäëÛëãñ. Áðëð ãëëëíPóðã áðu òí  
 CD äãëáðÛóóáóçð ëáë äðëëÝíðã òçí áíððóðíë÷ç äðëëïãP áíááÛëíóçð (upgrade).

**8 procfs:** ÐǎñáóìÝĩí áëëÜ 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 Ὑεῶδ νῶειβῶἰῶδ οἷο ὁῶδPἰῶἰδ, ἐἰπεδ οἱ procfs(5) εἰαῦνᾱβῶἰῶδ θᾱῖν÷çiYfi ὁᾱ θῆνῶῶἰῶδ ἡεἰῶἰῶδ οἷο  
εἰεἰοἰῶἰῶεἰῖ. (Αἱ εἰς ç αἰῶἰῖP<sub>sysctl</sub> ἡβῖῶ εἰβῶç ἡἰῶYῶἰῶ εἰς ὁἷ Linux).

Όοι δαηŨάεαia όσο δηηπεόσο IP, έα ÷ήσoέηδηέρύoαια όçi άέueiωδς αίοίεP άέα ίά έάειηβóτoia άί ç äöíaöuôçoá äöðP äßíäé áíāñāīdīécīÝíc 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
...
```

ΌçìàBùòç: ÊÜðìéàò àðü ôéoò ôéìÝò ðïõ äãß÷íáé ç áíôìĖP<sub>sysctl</sub> àßíáé ìüñ äéá áíÜãíùòç.

Ὁ ὁῦν ÷ τοῖ ἀναέδοροάδδ οῦδρὸ ἀδαέδαδδαι οἱ procfs, οὔδου ἀεά δανῦΑαέαια οὔαι ἀεοάαδδὰ δαέεουδανῖ εἰαείοιέε, οἱ ἰδῖβῖ εὔῖαέ ÷ πῶδς ὅδδ αἰοῖεδδ truss(1) ἀεά ὅγῖ αἰβ ÷ ἰαῶδς οὔι ἐεδδαι οῶοδδῖαοῖδ, ἐαέ ἀεά ὅγῖ Ὀοῖααδδουῶδδῖα 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 γ Ὀοῖααδδουῶδδῖα ἰα Ἀεοάεῖῖοεία οῖδ Linux ÷ ἡγῶείῖδῖεάδδ οἱ ἀέεῖ ὅδδ procfs, οἱ linprocfs(5)). Αἱ ÷ ἡαέῖῖαδδῖα ἰα δῖοαδδδδῖα οἱ procfs, ἰδῖἡδδῖα ἰα δῖοῖεῖῖαδδ ὅγῖ ἀέεῖοῶε γαἡἡἡἡδδ ὅδδ αἡ ÷ ἂβῖ /etc/fstab:

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

**Ὁγιαβυός:** Ὁ ἀδελφεῖς *noauto* ἐὰ ἀιδιᾶβόαε ὁγί ἀδὸυιδόος δῆτοῦ ἡνὸς ὁτῷ /*proc* ἐὰδὺ ὁγί ἀέεβίος ὁτῷ ὁδὸδ Πιᾶδὸτ.

ĐñĩóãñôPóóâ éáôũđéĩ ôçĩ procfs ÷ñçóëĩđĩéĩpĩóáò ôçĩ áéũëĩõêç áĩôĩêP:

```
# mount /proc
```



## 9 ÓõίϗέέòìÝíàò ÁíôïëÝò

### 9.1 Äéá÷âβñέόϗ ÐáêÝòùí

ÁíôïëP ôïò Linux (Red Hat/Debian)	Áíôβóôïë÷ç áíôïëP FreeBSD	Óêïðüò
<code>yum install package / apt-get install package</code>	<code>pkg_add -r package</code>	ÄãêáoÜóóáoϗ ÐáêÝòïò áðü áðñíáêñòòìÝíí áíòðçñâóçòP
<code>rpm -ivh package / dpkg -i package</code>	<code>pkg_add -v package</code>	ÄãêáoÜóóáoϗ ÐáêÝòïò
<code>rpm -qa / dpkg -l</code>	<code>pkg_info</code>	Ëβóóá äãêáoáoçìÝíñí ÐáêÝòùí

### 9.2 Äéá÷âβñέόϗ ÓóóòPíáôïò

ÁíôïëP Linux	Áíôβóôïë÷ç áíôïëP FreeBSD	Óêïðüò
<code>lspci</code>	<code>pciconf</code>	Ëβóóá óóóêáðί PCI
<code>lsmod</code>	<code>kldstat</code>	Ëβóóá ôñòòùíÝíñí áñêññüíÜòùí ðòñPíá
<code>modprobe</code>	<code>kldload / kldunload</code>	Öññòòùóç/Áðñöññòòùóç áñêññüíÜòùí ðòñPíá
<code>strace</code>	<code>truss</code>	Áíβ÷íáóóç êêPóáñí óóóòPíáôïò

## 10 ÓõìðãñÜóíáoá

ÄóãêέóóìÝíñí üóé áóòü ôñ êãβíññí óáo ðãññβ÷ã áñêáoÝð ðççñññññññ ãéá íá íãêéíPóáoãá íà ôñ FreeBSD. Äéá ðãñέóóóðãññò éáé ðéí êãðòññññññ ðççñññññññ, ðãñáéáéíÝíñ íá áéáãÜóáoãá ôñ Äã÷áéñPáéí 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 ïðññí áðβόçò ðãñέÝ÷áé éáé ðñêêÜ èÝíáoá ðñ äáí éáéýòççáí éáéüêñò óóí ðãñññí êãβíññí.