

1 ÅéóáãùãƆ

Οι εαβλαίη άόδου οίηβææέ όέδ άεάοιηÝδ ίαδóáý όιθ FreeBSD έάέ όιθ Linux ίόόά ίÝόίέ Þ ðñι÷ ùñçιÝñíé ÷ ñÞόόάδ όιθ Linux ίά ίδññíýí ãñÞáññά ίά ðñιόáññιόόίýí όόέδ ááόέέÝδ Ýíñíεάδ όιθ FreeBSD. Ðññüέάόάέ áéá ίεά όá÷ ίέέÞ áéόάáñüáÞ όόι FreeBSD, έάέ ááί έά áíáόáñεñýíλá όά όθ÷ úí “όέέίόιόέéÝδ” áéάοιηÝδ ίαδóáý όùí áýí όόόόçιÝδóùí.

Öi êâñîâñi áóòü òðîëÝóâê üóê Ý÷âòâ Þäç äâêáóáóóÞóâê ôi FreeBSD. Áí äâí Ý÷âòâ äâêáóáóóÞóâê ôi FreeBSD Þ ÷ñâêÜêáóóâ âiÞêâêá íâ öçí äêâêêêáóáâ äâêáóÜóóáóóç ôið, ðññâêâëýíâ íá äêáÜóóâð ôi êâòÜêâêí ÄâêêêêóóÞiðóáð ôi FreeBSD (http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/install.html) óòí Äã÷âññâêí ôið FreeBSD.

2 Êâëýöç: Ääí õđŮñ÷âé Bash;

[illegible][illegible]

3 ĐáêÝôá êáé Ports: ĐñĩôéÝôĩĩôáò ěĩăéóĩéü óôĩ FreeBSD

[illegible]

3.1 ĐấêÝôá

Όά θαέΎόά αβίαέ δñĩ-iaóaaèuóóéoiΎiaó aóanĩāΎó, èá èΎāāi oĩ aíobóoié÷ĩ aέα oĩ FreeBSD ouĩ añ÷āBuĩ .deb óá óóóóPiaóá Debian/Ubuntu éáé ouĩ añ÷āBuĩ .rpm óá óóóóPiaóá Red Hat/Fedora. Όά θαέΎόά āāēāēbóóáíóāé ÷ñcóēñdiēpíóáó óci aíoiēP pkg_add(1). Áέα δάνUāāēāi, ç āēuēiōèç aíoiēP āāēāēéóóU oĩĩ **Apache 2.2**:

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

Ç ÷ ñΠός όçò ðáñáíÝíññíð - ð ãäçããß öçí pkg_add(1) íá éáóááÜóáé áóóñíáóá öñóí öí ðáéÝóí, üóí éáé óéó áíáñðΠóáéó öñí. éáé íá öí ääéáóáóóðóáé:

```
# 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 ðá ðáëÝðá ðíð ððëÜ÷÷çëáí äëá äððß çç ððäëäëñëíÝíç Ýëäíóç. Óá ðáëÝðá äððÜ *ßóðð äáí ðáñëÝ÷íí* ðëð ðëÝíí ðäëäððáßðð äëäüðáëð ðñí äðáñííäíí. ðíñáßðá íá ÷ ñçóëííðíëáßðáðá ççí íäðáäëçðß ðáñëáÜëëííððð `PACKAGESITE` äëá íá ðáñáëÜíðáðá äððß ççí ðñíäðëëäáíÝíç ððíðáñëëííÜ. Äëá ðáñÜÜäëäíá, ëÝðííðáð ççí `PACKAGESITE` ðóçí ðëíß <ftp://ftp.freebsd.org/pub/FreeBSD/ports/i386/packages-6-stable/Latest/> ëá ëáðäáÜðáëð ðá ðëí ðñüððáðá ðáëÝðá ðíð ððÜñ÷ííí äëá ççç óáëñÜ 6.X.

Άέά δάνέοούοάναό δέçñïŕñßå ò÷âôééÛ îå ôá δάéÝóá, δάνάέάēÿîå äéååÛóóå ôçí áñúôçóå 4.4 óñí Åã÷áέñßäēí ôïŕ
FreeBSD: ×ñçóéíîðíépíóåð ôî Óýóôçíå Packages
(http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/packages-using.html).

3.2 Ports

Ç ääýðäñç ÿÿëïäüð äëä öçï ääëäðÛððäðç äðäñïïäïï öðï FreeBSD äßïäë ç Óðëëëïäß ðüï Ports. Ç Óðëëëïäß ðüï Ports äßïäë Ýïä ðëäððëï ëäëðïðñäëïï ðïð äðïðäëäððäë äðü Makefiles ëäë äñ÷äßä äëäðïñïï (patches) ðä ïðßäá Ý÷ïï äçïëïðñäçäß äëäëëÛ, þððä ïä äßïäë äïïäðç ç ääëäðÛððäç äëÛïñïï äðäñïïäïï öðï FreeBSD äðü ðïï ðççäßï ëþäëëä ðïðð. ¼ðäï ääëäëëððÛðä Ýïä port, ðï öýððçïä ëä ëäðääÛðäë ðïï ðççäßï ëþäëëä, ëä äðäñïùðäë ùëäð ðëð äðäëðýïïäïð äëëääÝð ÷ñçðëïïðïëþïðäð ðä patches, ëä ïäðääëùðððäë ðïï ëþäëëä, ëäë öÝëïð ëä ääëäðäðððäë öçï äðäñïïäß. Èä äëëëïðððäë öçï ßäëä äëääëëäððä ëäë äëä ïðëääððïðä ðð÷ïï äïäñðïäïä ðñïäñÛïäðä.

Ἰδιῆνᾱβὼᾱ ἰᾱ ἁῆνᾱβὼᾱ ὀçῖ Ὀῶεῖῖᾱᐅ ὀὐῖ Ports (ç ἰῑῖᐅᾱ ἰᾱῆῆῖῖῖ ὀῖῖῖῖ ἰᾱῖῖῖῖῖᾱῖῖ ῖῖῖ ὀ “ᾱῖῖῖῖῖ ὀὐῖ ports”), ὀῖῖ ῖᾱὀῖῖῖ /usr/ports. Ἀὀὀ ᾱῖᾱῖᾱ ὀῖῖῖῖῖῖῖῖ ὀῖῖ ᾱῖῖῖῖῖῖῖῖῖῖῖ ὀçῖ Ὀῶεῖῖᾱᐅ ὀὐῖ Ports ῖᾱὀῖ ὀç ῖῖῖῖῖῖῖ ὀçῖ ᾱῖῖῖῖῖῖῖῖ ὀῖῖ FreeBSD. Ἀῖ ᾱῖ ὀῖ ῖῖῖῖῖῖῖῖ ῖῖῖῖῖῖῖῖ ῖῖῖ ὀῖ CD ᾱῖῖῖῖῖῖῖῖ ὀçῖ ἰᾱ ὀçῖ ἰῖᐅῖῖῖ ὀῖῖ sysinstall(8) ᐅ ἰᾱ ὀçῖ ῖᾱὀῖῖῖῖῖῖ ᾱὀῖ ὀῖὀῖ ἰῖὀὀὀὀῖῖῖῖῖῖ ὀῖῖ FreeBSD ÷ῖὀῖῖῖῖῖῖῖῖ ὀçῖ ἰῖὀῖῖᐅ csup(1) ᐅ ὀçῖ ἰῖὀῖῖᐅ portsnap(8). Ἰῑῖᐅᾱβὼᾱ ἰᾱ ἁῆνᾱβὼᾱ ῖᾱὀὀῖῖῖῖῖῖ ἰᾱῖῖῖῖῖ ῖῖῖ ὀçῖ ᾱῖῖῖῖῖῖῖῖ ὀçῖ Ὀῶεῖῖᾱᐅ ὀὐῖ Ports ὀçῖ ἰῖὀὀὀὀᾱ 4.5.1 (http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/ports-using.html) ὀῖῖ ἰῖῖῖῖῖῖῖῖῖῖ.

Ç ääëäóÜóóäóç äíüò port äßíäë ääíëëÜ öüöí äðëP üöí öí íá áéóÝëëäöä öüíí ëäöÜëíäí öíö ëäë íá íäëëíPóäöä öçí äëääëëäößá íäöääëpöóëöçö. Ööí äëüëíöëí äánÜääëäíä äßíäöäë ääëäóÜóóäóç öíö **Apache 2.2** äðu öçí ÖðëëíäP öüí Ports:

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

Já óçíáíóééü ðéäñÝéðçíá òçð ÷ ñÞóçð ports óòçí áäéáðÜóóáóç ëñééóíééñý áñíáé ç ééáíúòçóá ðññóáñññäÞð òùí áðééëäÞí
 áäéáðÜóóáóçð. Áéá ðáñÜáäéäñíá, ùóáí áäéáééóðÜóá òñí **Apache 2.2** áðñ óá ports ðñññáßòá íá áñáññäññéÞóáòá óçí
 áðééëäÞ **mod_ldap** èÝññíóáó áðéðð òéñÞ óóç íàðáäéçðÞ **WITH_LDAP** òñð **make(1)**:

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

ÀéááÜôá ôçí áíúôçá 4.5 ôïð Åã÷ãéñéãßï òïð FreeBSD, ×ñçóéïïðíéðíóáð ôçí Ports Collection (http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/ports-using.html), áéá ðãñéóóüôãñãð ðëçñïïñßãð ó÷ãóééÜ ïá ôç Óõëëïãß òùí Ports.

3.3 Ports Þ ááêÝôá, ôé ðñÝðáé íá ÷ñçóéìðïéÞòù;

[illegible]

ĐáêÝôá (Ýôïëíà àêôãëÝóéíà)

- Δεί ἀνῆλθῆς ἀπὸ τοῦ ὁδοῦ (ὃ ἀπὸ τοῦ ἀνὰ τὸ ὄριον ἵδῃς ἵνα ἀπὸ τοῦ ὄριον ἀνέλθῃς ἡμεῖς).
- Ἄλλοι δὲ πάλιν λέγουσιν ὅτι ἀπὸ τοῦ ὁδοῦ ἀπὸ τοῦ ὁδοῦ οὐκ ἐπὶ τὸ ὄριον.
- Ἄλλοι δὲ πάλιν λέγουσιν ὅτι ἀπὸ τοῦ ὁδοῦ ἀπὸ τοῦ ὁδοῦ οὐκ ἐπὶ τὸ ὄριον.

Ports (őçãáßïò êpäéêáò)

- **Έξαιρούσθε τὸν ἀνθρώπου τοῦτον ἀπὸ τοῦ λαοῦ.** (Ὁ θεὸς λέγει ὅτι οὗτος ὁ ἀνθρώπος ἐστὶν ὁ ἐκείνός σου). Ἡ δὲ ἡμετέρα σου ἀποστολή ἐστὶν ἡ ἀποστολή τοῦ λαοῦ, οὗτοι οἱ ἄνθρωποι ἐστὶν ὁ λαός σου, ὁ λαός σου, ὁ λαός σου.
- **Ὁ ἀνθρώπος ἐστὶν ὁ λαός σου.** (patches) ἀπὸ τοῦ ἀνθρώπου.

[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) όýδιθ BSD, ââι όδÜñ÷ιθι run-levels, ιýðâ οι âñ÷âβι /etc/inittab. Αίθβ âέα äòðÜ, 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 êáειñβóáε διέâð ðδçñâðâð ðñùêáéðáε íá íâêειθιθι. Íε ðδçñâðâð äòðÝð íâêειÜíá íâ ðçí âêðÝêòς ðùι áíθβóθι÷÷ùι script âêêβίςοςδ θιθ âñβóειñóáε óθιθð êáðáεüñθð /etc/rc.d/ êáε /usr/local/etc/rc.d/. Óá scripts äòðÜ âβíáé δάνüñíέα íâ óá scripts θιθ âñβóειñóáε óθιθ êáðÜêειñ /etc/init.d/ óâ óðóðβιðáâ 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÷ῖῖῖ Ἀῖῖῖῖῖῖῖῖῖῖῖ 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 εῃἔἃ, ἰ ðñPῃἃ, ἰε ἃἔἔἔἔPἔἃ οῖο ὁδὸδΠιάοῖο, ἰε ἃαόέῃῸ ἃῖοῖῃῸ (userland, ὁἃ ðñῃἃῸῃἃἃ ὑδὸδ οῖ ls(1), cat(1), cp(1) ἔἔð.), αἰάδὸγὸοῖῃἃἃ ἔἃἃ ἄῃῃῃἃῃῃἃἃ ἰἃἃἃ, ὑδὸ οῃῃῃ. Ἀόοῃ ἃἃῃῃñἃἃἃ ἔἃἃ ὑδὸ “ἃαόέῃ” οῃγὸόçἰἃ. ἰἃ ἃἃῃῃῃῃῸ ὅῖο ἃἃἃἃἃἃἃἃἃἃ ἃῃῃ ὅῖο ÷ ñPόἃἃ, ἃἃ ἃῃῃῃ ὁῖ “ἃαόέῃ” οῃγὸόçἰἃ, ἔἃἃ ὁῃῃἃἃ ἃῃἃ ἃἃ ᰇῃῃῃἃἃ ἰ **Apache**, ὁῖ **X11**, ἰ **Mozilla Firefox**, ἔἔð. Ἀόῃῃ ὅῖ ἃῃῃῃῃ ἰἃ ἃἃῃῃῃῃῸ, ἃῃῃῃ ἃἃἃἃἃἃἃἃἃἃ ἰἃ ὁç ÷ ñPόç ὁçð Ὀόἔῃῃῃῃ ᰇἃἃῃῃῃ ἔἃἃ Ports (article.html#SOFTWARE) ὅῖο FreeBSD. Ἀἃἃ ἰἃ ἰἃ÷ῃñῃῃῃ ἃῃῃ ὅῖ ὁῃῃῃῃῃ “ἃαόέῃ” οῃγὸόçἰἃ, ἰἃ ἃἃῃῃῃῃῸ ÷ ñPόδς ὁῖῃῃῃ ἃἃἃἃἃἃἃἃἃἃ ὁἃ ὁῃῃἃἃἃἃῃῃῃ ὅῖο /usr/local/. ὁόἃ ὁἃ ἃἃἃῃῃῃῃ ᰇῃῃῃῃῃῃῃ ὁῖ ÷ ñçὁῃῃ ἃñἃἃῃῃἃἃ ὁῖῃῃῃ ἃἃῃῃῃῃῃῃ ἃἃῃῃῃῃῃῃ ὅῖο /usr/local/bin/, ὁἃ ἃῖὁἃὁῖ÷ἃ ἃñ÷ἃῃ ᰇἃῃἃὁῖῃ ὅῖο ὁῖῃῃ ἃἃῃῃῃῃῃ /usr/local/etc/, ἔ.ἰ.ἔ.

[illegible]

Οἱ ἀεὺεῖρεῖ ἀδὺοδᾶοῖᾶ ἀδὺ οἱ ἀν÷ᾶβι /etc/rc.conf ἀἰᾶᾶἰδῖεᾶβ ὁγῖ ὀδγᾶᾶβᾶ sshd(8) ἐᾶε οἱ **Apache 2.2**. Ἀδβόγδ
ἐᾶεἰᾶβᾶε ὑδῖ ἰ **Apache** ἐᾶ ἰᾶεῖᾶᾶε ἰᾶ ἀἰᾶᾶἰδῖεῖᾶ Ἰγῖ ὁγῖ ᾶοῖᾶοὺδγᾶᾶ SSL.

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

Ἄδῡ ὁϙ ὀόεἰἵP ḏiō iéá ὀδϙñáḡḡá áíáñḡḡiḡéϙεḡḡ ὀḡi ḡñ÷ḡḡi /etc/rc.conf, ḡḡḡḡḡḡḡ ḡá ὁϙi ḡḡééiḡḡḡḡḡ ḡḡḡḡḡḡḡ
 ḡḡḡ ὁϙ ḡḡḡḡḡP ḡiḡḡḡḡ (÷ḡḡḡḡ ḡá ÷ñḡéÜḡḡḡḡ ḡá ḡḡḡḡḡééiḡḡḡḡ ḡi ὀýḡḡḡḡ ḡḡḡ):

```
# /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

Άϊὸβ ἀέα ὁἱ ἀαίέϋ ἀίᾱᾱῖῡῆόόέϋ ὄϣῖῖ *ethX* ῖῖῖ ÷ῡῡῖῖῖῖῖῖ ὁἱ Linux ἀέα ὁῖ ἀίᾱᾱῖῡῆόῖ ἱέαῖ ἀέᾱῖᾱῖᾱῖ ἀέέῖῖῖ, ὁἱ FreeBSD ÷ῡῖῖῖῖῖῖῖ ῖῖ ἀίᾱᾱῖῡῆόόέϋ ὁἱ ῖῖῖῖ ὁἱ ῖῖῖῖῖῖῖῖ ῖᾱῖᾱῖῖῖ ᾱέῖῖῖῖῖῖῖῖ ᾱῖῖ ῖῖᾱ ᾱῖῖῖῖ. Ç ᾱέῖῖῖῖῖ ῖῖῖῖῖ ᾱῖῖ ὁῖ ᾱῖῖῖῖῖ *ifconfig(8)* ᾱῖῖ ÷ῖᾱ ᾱῖῖ Ἔῖῖῖῖῖ ᾱέέῖῖῖ Intel® Pro 1000 (ᾱῖ ᾱῖᾱᾱῖῡῆόόέῖῖ *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 Ἴὀἡἶፑὀἰ Ἀέἰὀἡἶፑὀἰ IP

Ἴὀἡἶፑὀἰ ἰἶ ἰἶἶἶἶἶἶ ἰἶἶ ἰἶἶἶἶἶἶἶ IP ὀἶ ἰἶἶ ἰἶἶἶἶἶἶ ἰἶἶἶἶἶἶ ἰἶ ὀἶ ÷ἡፑὀἶ ὀἶἶ ἰἶἶἶἶἶἶ ifconfig(8). Ἀέἶ ἰἶ ἰἶἶἶἶ ἰἶἶἶἶ ὀἶἶἶἶ ἰἶἶἶἶ ἰἶἶἶἶἶ, ἰἶἶ ἰἶ ἰἶἶ ÷ ἶἶἶἶἶ ὀἶ ἶἶἶἶ ἰἶἶἶἶἶἶἶἶ, ἰἶ ὀἶἶἶἶ ἰἶ ὀἶἶ ὀἶἶἶἶἶἶἶἶ ὀἶ ἰἶἶ ÷ ἰἶἶ /etc/rc.conf. ὀἶἶ ἰἶἶἶἶἶ ὀἶἶἶἶἶ ὀἶἶἶἶἶἶ ἰἶ ἰἶἶἶἶἶ ἶἶ ὀἶἶἶἶἶἶἶἶ ὀἶ ἰἶἶἶ ὀἶἶ ὀἶἶἶἶἶἶἶἶ (hostname), ὀἶἶ ἰἶἶἶἶἶἶ IP, ἰἶἶἶ ἰἶἶ ὀἶἶ ὀἶἶἶἶἶἶἶἶ ἶἶἶ ὀἶἶἶἶἶἶἶἶ (defaultrouter):

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

×ἡፑὀἶἶἶἶἶἶἶ ὀἶἶ ἰἶἶἶἶἶἶ ἰἶἶἶ ÷ἡፑὀἶ ἰἶἶ ἰἶ ἰἶἶἶἶἶἶἶ ὀἶἶ ἰἶἶ ἰἶἶἶἶἶἶ ἰἶἶἶἶἶἶ ὀἶἶἶἶἶἶἶἶ ὀἶἶἶἶἶἶἶἶ DHCP:

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

6 Firewall

ὀἶἶ Linux ÷ἡፑὀἶἶἶἶἶἶἶ ὀἶἶ **IPTABLES** ὀἶἶ ἶἶἶἶ ὀἶἶἶἶ ÷ἶ ὀἶἶἶἶἶἶἶἶ firewall ὀἶ ἰἶἶἶἶἶἶ ὀἶἶἶἶἶἶ. ὀἶ FreeBSD ὀἶἶἶἶ ÷ἶ ἰἶἶἶἶἶἶἶ firewall ὀἶἶἶἶ ὀἶἶ ὀἶἶἶἶἶἶἶ. Ἀέἶ ὀἶἶ ἰἶἶἶἶἶἶἶ, ὀἶ FreeBSD ὀἶἶἶἶ ÷ἶ ὀἶἶἶἶἶἶἶἶ:

- IPFW (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)
- PF (http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/firewalls-pf.html)

ὀἶ **IPFW** ἶ **IPFW** (ἰἶἶἶἶ ÷ἶἶἶἶἶἶ ὀἶἶ ἰἶἶἶἶἶ ὀἶἶ **IPFW** ἰἶἶἶ ἰἶ ipfw(8)) ἰἶἶἶ ὀἶ firewall ὀἶἶ ἶἶ ἰἶἶἶἶἶἶἶἶ ἰἶἶ ὀἶἶ ὀἶἶἶἶἶἶἶἶ ἰἶἶ ὀἶἶ ἶἶἶἶἶἶἶἶ ὀἶἶ FreeBSD. ὀἶ **IPFW** ἰἶἶἶἶ ἰἶ ὀἶἶἶἶἶἶἶἶ ἰἶ ὀἶ **dummynet(4)** ἰἶἶ ἰἶ ὀἶἶἶἶ ÷ἶ ὀἶἶἶἶἶἶἶἶ ἰἶἶἶἶἶἶἶἶ ὀἶἶ ἰἶἶἶἶἶἶἶἶ ὀἶἶἶἶἶἶἶἶ (traffic shaping) ἰἶἶ ἰἶ ἰἶἶἶἶἶἶἶ ἰἶἶἶἶἶἶἶἶἶ ὀἶἶἶἶἶἶἶἶἶ ὀἶἶἶἶἶἶἶἶἶ ἰἶἶἶἶἶἶἶἶἶ.

ὀἶἶἶἶἶἶἶ ἰἶἶἶ ἰἶἶἶἶ ὀἶἶ **IPFW** ὀἶἶ ἰἶἶἶἶἶἶἶ ἰἶἶἶἶ ÷ἶ ἰἶἶἶ ἰἶἶἶἶἶἶ ὀἶἶ ὀἶἶἶἶἶἶἶἶ **SSH**:

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

Ôi **IPFILTER** áðíáé íéá áóáñíáP firewall ðíó áíáððýóóáðáé áðú ôíí Darren Reed. Äáí Ý÷-áé öðéá÷ðáß áéáéÜ áéá ôí FreeBSD, éáé Ý÷-áé íáðóáññéáß éáé óá Üëéá éáéðíðñáéÜ, óðíðñáééáíááííÝíúí ôúi 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 Ýòóé ç óýíòáç òìò **PF** ááíáé áñèêòÜ ðañüüíéá íá áòòP òìò **IPFILTER**. Ôì **PF** ìðññáá íá óóíáòáóòáá íà òì altq(4) áéá íá ðánÝ ÷ áé òðçñáóáò òýðìò QoS.

ĐánÜäåëâîá êáíuíá ôiõ **PF** ðiõ ãðéônÝðäé áéóãñ÷ùiáíá äãäiñÝíá ðñiò ôçí òðçñáóßá **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 êþäééá, ìÝóù Ýðïëèìì (binary) áíáááèìßóáñì, êäé 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 ÄìçìÝñòúç éäé ÄíáäÛèìéðç (http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/updating-upgrading.html) ðòì Ää÷äéñâéí 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
 έάειñβόαόα οςι αόδυιάος, αΐΥ όάέοΥ έάέάοΠιάόά αέοΥέαός οςό, ιά ος ÷ñΠός οίο cron(8).

Όγιὰβυός: Αί δñüēάέόάέ íá ÷ ñçόέííðíéΠάάðά ðí cron(8) áέά ðñĩāñáííáðéóéÝíàð áíáááèìßóáéó, ááááéùèáßðá üóé ÷ ñçόέííðíéáßðá όγι áíðíēΠ freebsd-update cron óðí áñ÷:áßí crontab(1) áέά íá áέá÷:έóóíðíéçéáß ç ðééáíüðçóá íá áßíáóáέ áíáÝýóç όγι Βάέά óóéáìΠ áóü Ýíá íāåÜēí áñéèìü ïç÷:áíçÜòüí.

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

Ç öâëãöôâáá äðëëïãP áíááÛëíóçð, ìÝòù òùì CD äãëáðÛóóáóçð, âáíáë äñëãðÛ íäëÛëãñ. Áðëð ãëëëíPóðã áðu òì
 CD äãëáðÛóóáóçð ëáë äðëëÝíðã òçì 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, ἐἰπεῖθ οἱ procfs(5) εἰαῦνᾱβῶἰῶδ θᾱῖν÷çiYfi ὁᾱ θῆνῶῶἰῶδ ἡεἰῶἰῶδ οἷῶ
εἰεἰοἰῶἰῶεἰῶ. (Αἱ εἰς ç αἰῶἰῶP_{sysctl} ἡβῶἰῶ ἡδβῶἰῶ ἡεἰῶYῶἰῶ εἰς ὁἷ Linux).

Όοι δαηŨάεαia όσο δηηπεόσο IP, έα ÷ήσoέηδηέρύoaiá όçi áεueiဝေ့ αíoieP áέα íá έαειηβóτoíá άί ç äöíaòuဝ္းoá äöðP äbíáé áíañāīdīécīÝíc oá Ýía FreeBSD óýóδçía:

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

Ç ¢đééĩãP -a ÷ñçóéĩđĩéãßôáé ¢éá íá đŨñĩõĩã íéá ëßóóá ìã üëàò ôéđ ñõèìßóáéđ 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: ÊÛðíεάò áðü öéo öéíÝò ðĩö äãß÷íáé ç áíôîÊP_{sysctl} áßíáé ìüñ äéá áíÛäíüóç.

Ὁ ὁῦν ÷ τοῖ ἀναέδοροάδδ οῦδρὸ ἀδαέδαβδαέ οἱ procfs, οὔδου ἀέα δανῦΑαέαια οὔαῖ ἀεοααβδὰ δαέεουδανῖ εἰαείοιέε, οἱ ἰδῖβῖ εὔῖαέ ÷ πβος οὔδδ αἰοῖεβδ truss(1) ἀέα οὔαῖ αἰβ ÷ ἰαοός οὔι ἐεβδανῖ οδδδβιαοῖδ, ἐαέ ἀέα οὔαῖ Ὀοῖααδουόοδῖα ἰα Ἀεοαέῖῖοεία οῖδ Linux (http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/linuxemu.html). (Αἱ ἐαέ οὔαῖ Ὀοῖααδουόοδῖα ἰα Ἀεοαέῖῖοεία οῖδ Linux ÷ ηῖοείιθῖεάβ οἱ ἀέεῖ οὔδδ procfs, οἱ linprocfs(5)). Αἱ ÷ ηῖαέῖῖαδῖα ἰα δηῖοαδνδβδδδ οἱ procfs, ἰδῖηβδδῖα ἰα δηῖοεῖῖοαδῖα οὔαῖ ἀεῖεῖοεῖ ἀαῖηαδβ οὔι αῖ ÷ 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 Πιᾶδὸδ.

ĐñĩóãñôPóóâ éáôũđéĩ ôçĩ procfs ÷ñçóëĩđĩéĩpĩóáò ôçĩ áéũëĩõèç áĩôĩëP:

```
# mount /proc
```


9 ÓõĩçèéóìÝíàò ÅíôïëÝò

9.1 Äéá÷åßñéóç ÐáêÝòùí

Άίότῆρ ôîõ Linux (Red Hat/Debian)	Άίôßóôîé÷ç αίôîῆρ FreeBSD	Óēîðùò
yum install <i>package</i> / apt-get install <i>package</i>	pkg_add -r <i>package</i>	ΆãēáoŨóóáoç ðáēÝôîõ áðü áðñáēñóóîÝñî áîððçñãóçòß
rpm -ivh <i>package</i> / dpkg -i <i>package</i>	pkg_add -v <i>package</i>	ΆãēáoŨóóáoç ðáēÝôîõ
rpm -qa / dpkg -l	pkg_info	Ëßóóá äãēáoãóóçîÝñîü ðáēÝòüí

9.2 Äéá÷βñéóç ÓõóôÞíáôïò

ΆίόϊεP Linux	Άίόβόόίε÷ç αίόϊεP FreeBSD	Όείòùò
lspci	pciconf	Έβόόά όόόέâóí PCI
lsmod	kldstat	Έβόόά öïñòùíÝíúí áñèñùìÛòùí ðõñPíá
modprobe	kldload / kldunload	Öüñòùòç/Áðíöüññòùòç áñèñùìÛòùí ðõñPíá
strace	truss	Άίβ÷íâóóç êëPóâùí óóóóPíáôìò

10 ÓõìďǎñŮóìáôá

[illegible]