

İläçãüò ÃñÐãĩñçò Âêêßícóçò ôĩö FreeBSD ãéá × ñÐóôåò Linux®

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\$FreeBSD: doc/el_GR.ISO8859-7/articles/linux-users/article.sgml,v 1.4 2009/10/08
21:01:16 keramida Exp \$

ÐíãðĩãôêêÜ Äêêãépĩãôá © 2008 Ç İİÜää Ôãèìçñßüóçò ôĩö FreeBSD

Ôĩ FreeBSD áßĩáé Ýĩá éãôĩ÷ ðñüĩÝĩĩ ãĩðĩñêêü öýĩãĩēĩ ôĩö FreeBSD Foundation.

Ôĩ Linux áßĩáé Ýĩá éãôĩ÷ ðñüĩÝĩĩ ãĩðĩñêêü öýĩãĩēĩ ôĩö Linus Torvalds óôéò ÇĩüĩÝĩãò Ðĩêêôãßãò.

İé ēÝĩãéò Intel, Celeron, EtherExpress, i386, i486, Itanium, Pentium, éáé Xeon áßĩáé ãĩðĩñêêü öýĩãĩēã Ð éãôĩ÷ ðñüĩÝĩĩ ãĩðĩñêêü öýĩãĩēã ôçò Intel Corporation éáé ôüĩ êôããðñêépĩ ôçò óôéò ÇĩüĩÝĩãò Ðĩêêôãßãò éáé óã Üêêãò ÷ þñãò.

İé ēÝĩãéò Ð ðñÜóãéò Red Hat, éáé RPM áßĩáé ãĩðĩñêêü öýĩãĩēã Ð éãôĩ÷ ðñüĩÝĩĩ ãĩðĩñêêü öýĩãĩēã ôçò Red Hat, Inc. óôéò ÇĩüĩÝĩãò Ðĩêêôãßãò éáé óã Üêêãò ÷ þñãò.

Ç ēÝĩç UNIX áßĩáé éãôĩ÷ ðñüĩÝĩĩ ãĩðĩñêêü öýĩãĩēĩ ôĩö Open Group óôéò ÇĩüĩÝĩãò Ðĩêêôãßãò éáé óã Üêêãò ÷ þñãò.

ÐĩêêÝò áðü óéò ēÝĩãéò Ð ðñÜóãéò İé İðĩßãò ÷ ñçóéİİðĩēĩýĩóáé áðü ôĩöò éãããéãããããôÝò Ð ôĩöò

ðüēçòÝò ôĩöò ãéá İá äéããñßĩĩôĩ óã ðñĩüüĩóã ôĩöò èãüñĩýĩóáé ãĩðĩñêêü öýĩãĩēã. ¼ðĩö áðôÝò

ãĩðãĩßãēĩóáé óã áðôü ôĩ èãßĩãĩ ēáé ãéá üóãò áðü áðôÝò ãĩüñßããé ç İİÜää ÁĩÜðððĩçò ôĩö FreeBSD üéé áßĩáé ðééãĩüĩ İá áßĩáé ãĩðĩñêêü öýĩãĩēã, éã äãßôã Ýĩá áðü óã öýĩãĩēã: “TM” Ð “®”.

Ôĩ èãßĩãĩ áðôü Ý÷ äé óēĩðü İá ãĩçèÐóáé óôç ãñþãĩñç ãñēêãßüóç ÷ ñçóôþĩ Linux® İÝĩóĩö / ðñĩ÷ ðñçĩÝĩñö
ãðéðÝãĩö İã óéò áãóéēÝò Ýĩñĩãò ôĩö FreeBSD

Ðßĩãéãò Ðãñéã÷İİÝĩüĩ

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1 ÅéóáãùãƆ

Οι εαβιαίρ αζοδύ οίφβææέ οέδ æεάοινΎδ ιαδóáý οίϝ FreeBSD éæέ οίϝ Linux ιόοα ιΎοίε ι θñí÷÷ñçíΎííε ÷ñιιόαδ οίϝ
 Linux íá ιδñíýí ãñιáñíá íá θñíóáñííοόίýí οόέδ ááοέέΎδ Ύíííεαδ οίϝ FreeBSD. Ðñüêæέοάé æéá íéá óá÷÷íéêι æέóáñüð
 οóí FreeBSD, éæέ ááí éá áíáóáñèñýíλá óá óð÷÷íí “οέέíοίρөөΎδ” æέάοινΎδ ιαδóáý ούí áýí οόόöçíÛöúí.

Οι ε&βλ&α&ι α&δ&ο&ι ο&δ&ι&ε&Υ&ο&α&ε υ&ο&ε Υ&÷&α&ο&α Πα&ε α&α&ε&α&ο&ο&Π&ο&α&ε ο&ι FreeBSD. Α&ι α&α&ι Υ&÷&α&ο&α α&α&ε&α&ο&ο&Π&ο&α&ε ο&ι FreeBSD Π& ÷&η&α&ε&Υ&α&ο&α α&ι Π&ε&α&ε&ι ι&α ο&ε&ι α&ε&α&ε&α&ο&β&α α&α&ε&α&ο&ο&Π&ο&α&ο&ο&ε ο&ι&ο, δ&α&η&α&ε&α&ε&ρ&ι&γ&ι&α ι&α α&ε&α&ο&ο&α&ο&ι ο&ι ε&α&ο&Υ&ε&α&ε&ι Α&α&ε&α&ε&ο&ο&Π&ρ&ο&α&ο& ο&ι FreeBSD (http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/install.html) ο&ο&ι Α&α&÷&α&ε&η&β&α&ε&ρ& ο&ι&ο FreeBSD.

2 Êâëýöç: Ääí õđŮñ÷âé Bash;

[illegible][illegible]

3 ĐáēÝóá éáē Ports: ĐñĩóēÝóĩĩóáo ēĩăēóĩēēü óoĩ FreeBSD

[illegible]

3.1 ĐấêÝôá

Όά θαέΎόά αβίαέ θññ-ιαόααεüοόέοιΎιαό αόάνñāΎό, εά εΎāñā òñ αίοβόοίε÷ĩ αέα òñ FreeBSD òññ āñ÷āβññ .deb óā óóóóΠιαόά Debian/Ubuntu έάέ òññ āñ÷āβññ .rpm óā óóóóΠιαόά Red Hat/Fedora. Όά θαέΎόά āāέαέβόόάíóáέ ÷ñçóéñíóñέβíóáó òçñ áíóñēP pkg_add(1). Άέα θάνŪāέέñā, ç áéüēñōèç áñíñēP āāέέέóóŪ òññ **Apache 2.2**:

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

C ÷ ñÞóç ôçð ðáñāŶôñîō - r iāçāāß ôçí pkg_add(1) íá éāóāāŬōāé áðòùīāðā òùōī òī ðāēŶôī, ũōī éāé òéð āīāñðÞóāéð òīō. éāé íá ôī āāēāðāóðÞóāé:

```
# 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÷íð* ðëð ðëÝíí ðäëäððáßðð äëäüðáëð ðñí äðáñííäíðí. ðíñáßðá íá ÷ ñçóëííðíëáßðáðá ççí íáðáäëçðß ðáñëáÜëëíðððð `PACKAGESITE` äëá íá ðáñáëÜíðáðá äððß ççí ðñíäðëëäáíÝíç ððíðáñëëðíñÜ. Äëá ðáñÜÜáëäíá, ëÝðííðáð ççí `PACKAGESITE` ðóçí ðëíß <ftp://ftp.freebsd.org/pub/FreeBSD/ports/i386/packages-6-stable/Latest/> ëá ëáðäáÜðáëðá ðá ðëí ðñüððáðá ðáëÝðá ðíð ððÜñ÷íðí äëá ççççíÜ 6.X.

Idioma Bôa é a língua nativa dos povos bôas, que vivem na região do rio Negro, no estado do Amazonas. A língua Bôa é uma língua da família das línguas tupi-guarani, mais precisamente da subfamília das línguas tupi. A língua Bôa é uma língua de contato, ou seja, é uma língua que surgiu a partir do contato entre as línguas tupi e guarani. A língua Bôa é uma língua de contato, ou seja, é uma língua que surgiu a partir do contato entre as línguas tupi e guarani.

Άέά δάνεόουόαηάο δέçññοιηβáο ò÷âôééÛ ìà ôá δαéÝôá, δάηάεαεγγíα áéááÛóôâ ôçí áíüôçóá 4.4 ôôí Åã÷áénβáεí ôïò FreeBSD: ×ñçóéüñðíéπíóáò ôï Óýóôçιά Packages (http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/packages-using.html).

3.2 Ports

Ç αáyóαñç Ýíεíαιò áεά öçí áαεαòÕóðáöç áòáñíηáπí öðí FreeBSD áβίáε ç Óðεεíηάβ ðñí Ports. Ç Óðεεíηάβ ðñí Ports áβίáε Ýíá ðεάβöéí εάεöíηñáεπí ðñí áðñòáεáβöáε áðñ Makefiles εάε áñ÷-áβá áεáöññπí (patches) óá íðñβá Ý÷íñí áçíεíññáçεáβ áεáεéÕ, þóðá íá áβίáε áññáðç ç áαεαòÕóðáöç áεÕññññí áòáñíηáπí öðí FreeBSD áðñ ðñí ðçááβí εþáεéá öñòð. ¼ðáí áαεáεεóðÕáá Ýíá port, ðí óýóöçíá εá εáðááÕóáε ðñí ðçááβí εþáεéá, εá áòáñññóáε ùεáð öεð áðáεöíýñíáñð áεεááÝð ÷ñçöñíñðñέññáð óá patches, εá íáðááεñððβöáε ðñí εþáεéá, εάε öÝεíð εá áαεáðáóðβöáε öçí áòáñññάβ. Éá áερεíðεβöáε öçí βáεá áεááεéáóβá εάε áεá íðñεááβðñíðá ðð÷ñí áñáñðññáíá ðññññññññáðá.

[illegible]

Ç ääëäôÜóôäóç áñüò port äßíäë ääíëëÜ öüóí äðëP uóí ôí íá áéóÝëëäôä öóñí ëäôÜëíäí öíò ëäë íá íäëëíPóäôä öçí äëäëëëäóßá íäôääëpôðëöçð. Öóí äëüëíðëëí ðánÜäëëíä äßíäôäë ääëäôÜóôäóç öíð **Apache 2.2** äðü öçí ÖðëëíäP öüí Ports:

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

já óçíáíóêéü ðeäííÝéôçíá ôçð ÷ ñÞóçð ports óçí áäeáoÜóóáoç ëíäeóíeéíý áßíáé ç éeáíúôçóá ðñíóáñííäÞò òùí áðeéäíáí
 áäeáoÜóóáoçð. Áeá ðánÜáäeäíá, úóáí áäeäeéóóÜòá òíí **Apache 2.2** áðü óá ports íðñíáßòá íá íáñáñüðíeÞóáòá óçí
 áðeéäíá **mod ldap** èÝóñíóáo áðeðò òeíÞ óóç 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, × ἡγοεῖνδρῖοδα ὁπρὶ Ports Collection (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 θαέΥοά, οέ δῆΥδαέ ἰα ÷ ἡγοεῖνδρῖο;

Ὁά θαέΥοά ἀβιάε ὁπρὶ δῆαῖαδῶοδα ἀδῆδ δῆ-ἰαοᾶεῦδῶοῖΥἰα ports, ὕνα ἀβιάε δᾶνέοοῦἀνὰ εἴα ἀδῶαδ αἰ ἀβιάε ἀδῶοῖδπ ὅ ἀεᾶδῶοδα ἄδῶ οἱ δῆαβῖ ἐπαέεα π ἄδῶ Υοῖεἰα ἀεᾶεΥοεἰα. Εὔεα ἰΥεῖαδ Υ÷ἀε ὁα δῆαῖαδπῖαδα ὁπρὶ:

ΔαέΥοά (Υοῖεἰα ἀεᾶεΥοεἰα)

- Δεῖ ἀνδρῆς ἀεᾶδῶοδα (ὅ ἰαοᾶεῦδῶοῖ ἰαῦεῦ ἀοᾶνῖαβῖ ἰδῖνᾶβ ἰα ἀεᾶεΥοᾶ ἀνῶδπ πῆα).
- Ἀἰ ÷ ἡεῦεᾶδαέ ἰα εᾶδᾶνᾶβδᾶ δῶδ ἀβῖαδαέ ὅ ἰαοᾶεῦδῶοῖ τοῦ εἰαεῖεῖ.
- Ἀἰ ÷ ἡεῦεᾶδαέ ἰα ἀεᾶδῶοδπᾶ ἰαοᾶεῦδῶοῖδ ὁπρὶ ὀγῶοῖα ὁαδ.

Ports (δῆαβῖο ἐπαέεα)

- Εἰαῖαδῶα δῆοᾶνῖαδ οὐ ἀδῶαβῖ ἀεᾶδῶοδα. (Ὁά θαέΥοά ὁπρὶεῦδ ἰαοᾶεῦδῶοῖαέ ἰα ὁεδ δῆαδῶεᾶἰΥῖαδ ἀδῶεῖαΥδ). ἰα ὁα ports ἰδῖνᾶβδᾶ ἰα δῆοᾶνῖαδᾶ ἀεῦοῖνᾶδ ἀδῶεῖαΥδ, ὑδῶδ ὁπρὶ ἰαοᾶεῦδῶοῖ δῆοῶεᾶοῖ ἀνῆνῖαδ, π ἀεᾶπ ὁπρὶ δῆαδῶεᾶἰΥῖαδ εἴοδ ἀεᾶδῶοδα.
- ἰδῖνᾶβδᾶ ἰα ἰεᾶδᾶ ὁεδ ἀεῖΥδ ὁαδ ἀεᾶᾶΥδ (patches) αἰ οἱ ἀδῶοῖαδᾶ.

Αἰ ἂν Υ÷ἀδᾶ ἀεᾶεῖΥδ ἀδᾶδᾶδᾶ, ὁά θαέΥοά δῶεᾶῖ εᾶ ὁαδ εᾶεῖοῖ ἰεᾶ ÷ ἀνῖ. Αἰ ὑοῶοῖ ÷ ἡεῦεᾶδαέ ἰα δῆοᾶνῖαδᾶ εῦδῖεᾶδ ἀδῶεῖαΥδ, οῦδᾶ ὅ ἰΥεῖαδ οὐ ports ἀβιάε ὅ εᾶεῖαδ. (Εᾶε δῶοῖαδᾶ, αἰ ÷ ἡεῦεᾶδαδᾶ δῆοᾶνῖαδ ἀεῦ δῆοῖαδᾶ ὁά θαέΥοά, ἰδῖνᾶβδᾶ ἰΥοῦ ὁπρὶ ὁδῶεῖαδ οὐ ports ἰα ὁεῖῖαδᾶ ὁά ἀεῖῖ ὁαδ δῆοᾶνῖαδᾶΥἰα θαέΥοά ÷ ἡγοεῖνδρῖοδα ὁπρὶ αἰδῖεπ make package εᾶε αἰεᾶνῖοῖαδ ὁά θαέΥοά δῖο ἀοῖεῖαδᾶδᾶ ὁά ὕεᾶ ἰσ÷αἰαδα.)

4 Ἀεὶβίος τοῦ Ὁοῶπῖαδῖο: Δῖο ἀβιάε ὁα run-levels;

Ὁἱ Linux ÷ ἡγοεῖνδρῖαδ οἱ ὀγῶοῖα ἀεὶβίος SysV, ἀπρ οἱ FreeBSD ÷ ἡγοεῖνδρῖαδ οἱ δᾶνᾶῖοεᾶεῦ ὀγῶοῖα ἀεὶβίος BSD. Ὁπρὶ ὀγῶοῖα init(8) ὀγῶοῖ BSD, ἂν ὁδῖν÷ῖοἱ run-levels, ἰγῶα οἱ ἀν÷ἀβῖ /etc/inittab. Αἰδᾶ ἁεὶ ἀδῶ, ὅ ἀεὶβίος ἀεῖα÷ἀδαέ ἄδῶ Υἰα script ἀεὶβίος, οἱ rc(8). Το script /etc/rc ἁεᾶᾶῖαε οἱ ἀν÷ἀβῖ /etc/defaults/rc.conf εᾶε οἱ ἀν÷ἀβῖ /etc/rc.conf ἁεᾶ ἰα εᾶεῖνᾶε δῖεᾶδ ὁδῆᾶβδᾶ δῆεᾶεᾶε ἰα ἰαεῖοῖ. ἰε ὁδῆᾶβδᾶ ἀδῶΥδ ἰαεῖῖῖ ἰα ὁπρὶ ἀεῖῖαδ οὐ αἰδῶοῖ÷ῖ script ἀεὶβίος δῖο ἀνᾶοῖαε ὁπρὶ εᾶδᾶεῖαδ /etc/rc.d/ εᾶε /usr/local/etc/rc.d/. Ὁά scripts ἀδῶ ἀβιάε δᾶνῖεᾶ ἰα ὁα scripts δῖο ἀνᾶοῖαε ὁπρὶ εᾶδῶεῖα /etc/init.d/ ὁα ὁδῶπῖαδᾶ Linux.

Ἀέάββ ὁδῦñ÷ῖοι ἄγρ ὀιδῖεάββῶ Ἀέα ὀά scripts ἀέέββῖςῶς ὀυῖ ὁδςñᾱὀέβῖ; Ὀά scripts δῖῶ ἁñβῶείῖῶάε ὀόῖῖ εᾱὀῦεῖῖᾱ /etc/rc.d/ ἁβῖᾱέ Ἀέα ᾱὀᾱñῖᾱῖῖ δῖῶ ἁβῖῖῖῖ ὀόῖ “ᾱᾱὀῃῦ” ὀῶῶῶῖᾱ. (Ἀέα δᾱñῦᾱᾱέᾱῖᾱ, ὀῃὀ cron(8), sshd(8), syslog(3), εᾱέ ῦῖεᾱὀ.) Ὀά scripts δῖῶ ἁñβῶείῖῶάε ὀόῖῖ εᾱὀῦεῖῖᾱ /usr/local/etc/rc.d/ ἁβῖᾱέ Ἀέα ᾱὀᾱñῖᾱῖῖ δῖῶ ῖ÷ῖοι ᾱᾱᾱᾱὀᾱὀᾱᾱᾱᾱ ᾱῖῖ ὀῖῖὀ ÷ñβῶὀᾱὀ, ὑῖῖὀ Ἀέα δᾱñῦᾱᾱέᾱῖᾱ ῖ **Apache**, ὀῖ **Squid**, ἔ.ἔ.ḁ.

[illegible][illegible]

Οἱ ἀεὺἐρὸἐῖ ἀδὺοδάοιὰ ἀδὺ οἱ ἀν÷ᾶβι /etc/rc.conf αἰἀναῖθιέαβ ὁçí òðçñάóßá sshd(8) ἐαé οἱί **Apache 2.2**. Ἀðβόçò
ἐαèñβæäé υῶé í **Apache** èà ίαèéíΡοάé ιὰ αἰἀναῖθιέçí Ýίç ὁç äöíaòυòçôá SSL.

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

Ἄδῡ ὁϙ ὀόεαιῖᑯ ḏiō iéá ὀδϙñáḡḡá áíáñáñḏiēéçēáḡ ὀḡi áñ÷ḗḡi /etc/rc.conf, ḏiñḡáḡḡá íá ὁϙi íáééiῖᑯḡḡḡá ḗḡḡḡéáḡḡḡ
 ḗḡḡ ὁϙ ḗñáñḡᑯ ḗíḡḡēḡi (÷ḡñḡḡó íá ÷ñáēḲḗḡḡá íá ḗḡḗíáēēéiῖᑯḡḡḡá ḡi ὀḡḡḡḡḗ ḡḡḡ):

```
# /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 Äéêôýïõ

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 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 Νῶεἰβóáέò Ἀέάðèýíóáùí IP

Ἰðñáβòά íá áíáèÝóáòá íέά ἁέáyèðíóç IP óá íέά ἁέάðáöð ἁέéðýíò íá ðç ÷ñðç ðçð áíðíèðð ifconfig(8). Ἀέά íá ἁβίáέ ìüíèç ùòðüòí áððð ç ἁééáðð, έάέ íá íçí ÷ Ûíáðáé óá èÙèá ἁðáíáèèβíçç, έá ðñÝðáé íá ðçí ðñééèÙááðá óòí ἁñ÷ἁβí /etc/rc.conf. Óòí ἁéüèíðèí ðññÙááéáíá óáβíáðáé ç έáðá÷ñçóç ðíð ðñéééáíá Ûíáé ðí ùñíá ðíð ððíèíáéóðð (hostname), ðçí ἁέáyèðíóç IP, έáèðð έάέ ðçí ðññáðééáñÝíç ðýèç (defaultrouter):

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

×ñçóéñðíèèðóðá ðçí ἁéüèíðèç έáðá÷ñçóç ἁέά íá έáèññóáðá ùðé íέά ἁέάðáöð έá έáíá Ûíáé ñῶεἰβóáέò ìÝóù DHCP:

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

6 Firewall

Óòí Linux ÷ñçóéñðíèéáβóáé ðí **IPTABLES** ðí ððíβí ðññÝ÷ḁé ððçññáóβáð firewall óá ἁðβðáññ ððñπíá. Óí FreeBSD ðññÝ÷ḁé ἁðβóçð firewall ìÝóù ðíð ððñπíá. Ἀέά ðçí ἁéññáḁéá, ðí FreeBSD ðññÝ÷ḁé ðññá firewalls:

- 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)

Óí **IPFW** ð **IPFW** (ç áíðíèð ÷ḁéñéóñý ðññ έáíññí ðíð **IPFW** ἁβίáé ç ipfw(8)) ἁβίáé ðí firewall ðíð Ý÷ḁé áíáððð÷ḁáβ έάέ óóíóçññáβóáé ἁðñ ðçí ññáá áíñðððíçð ðíð FreeBSD. Óí **IPFW** ððñáβ íá óóíáðóóðáβ ìá ðí dummynet(4) ἁέά íá ðññÝ÷ḁé ἁðíáðüðçððð ἁéññññññðçð ðçð èβíçóçð ðáéÝñññ (traffic shaping) έάέ íá ἁññéπíáé ἁέáñññáðééýð ðýðíðð óóíáÝóáññ ἁééðýíð.

ðññÙááéáíá ἁíñð έáíññá ðíð **IPFW** ðíð ἁðéðñÝðáé ἁéóáñ÷ḁé ἁáññÝíá ðññð ðçí ððçññáóβá **SSH**:

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

Ôi **IPFILTER** áðíáé íéá áóáñííáP firewall ðíó áíáððýóóáðáé áðú ôíí Darren Reed. Äáí Ý÷-áé öðéá÷-ðáß áéáéêÜ áéá ôí FreeBSD, éáé Ý÷-áé íáðóáññéáß éáé óá Üëéá éáéðíõñáéêÜ, óðíðáñééäíááííÝíúí ðùí NetBSD, OpenBSD, SunOS, HP/UX, éáé Solaris.

ĐánŨäâëàlà áíüò éáíuíá áéá ôi **IPFILTER** ðĩõ ãđéõñÝđăé áéóăñ÷:ùìàlà àăăñÝíá ðñĩò ôçí òđçñăóóă **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 ãðéônÝðáé áéóañ÷ùiáíá áääiîÝíá ðñiò ôçí òðçñáóßá **SSH**:

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

7 Άίαâáèìβæïïôáò ôï FreeBSD

ÖðÜñ÷ïï ññáoò ìÝèäëé áéá ôçí áíááÜèìéóç áíuò óóóóPíáòïò FreeBSD: ÌÝòù òïò ðçááßïò èpáééá, ìÝòù Ýðìèìì (binary) áíáááèìßóáìì, éáé ìÝòù òùì CD áãéáÖÜóóáóçð.

Ç äæäðÛððáðç ìÝóù òìð ðçäâðìò òðäéä äâðäé ç ðér ðèýðèèç, äæÛ ðñìòóÝñäé éäé ðç ìääæýðäñç äððáðð äðäéððä. Ç äéääéäðä äððð ðäñééäìäÛðäé òì ððä÷ññéðìù òìð òìðéèý áðéäñÛðìò òìð ðçäâðìò òðäéä òìð FreeBSD ìä òìð òðäéä òìð FreeBSD ðìò äñððéäðäé ððìð äìððçñäðçÝð CVS (Concurrent Versioning System). Äðù ðç ððéäìð ðìò òì òìðéèù áððâñäðì ðçäâðìò òðäéä äððäèùÝñ, ìðñâððä ìä ìäðäæùððððäðä ìÝäð äæäùäæð òìò ððñððä éäé ðùì ääðéðð ðññäñäìÛðùì. Äéä ðäñéððùðäñäð ðççñìòñðäð ð÷äðééÛ ìä òì óýððçðä áðäâÛèìéðçð ìÝóù ðçäâðìò òðäéä, äâððä òì èäðÛèäéí ÄìçìÝñùðç éäé ÁðäâÛèìéðç (http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/updating-upgrading.html) ððì Ää÷äéñâäéí òìò FreeBSD.

Ίε Υόιειάο (binary) αίαάειβόάεο, αβίαέ δάνυιρέαο ιά ος ÷ñΠός οςο αίοιρέΠο yum P apt-get αέα οςι αίαάΥειέος αίυο
 οόοόΠιάοιò Linux. Ç αίοιρέP freebsd-update(8) έα έαόάάΥοάε οέο αίαάειβόάεο έάε έα οέο αάεάοάοόΠοάέ. Ιδιñαβόα ιά
 έάειñβόάοά οςι αόδύιáος, αίΥ όάέòΥ έάέάοΠιάόά άέòΥέάός οςο, ιά ος ÷ñΠός οίò cron(8).

Όγιὰβυός: Άί ðñüêääéáé íá ÷ ñçóéíïðíéPóáðâ ðí cron(8) äéá ðñĩãñáííäðéóíÝíäð áíáääèíßóáéð, ääääéüèäßðâ üðé ÷ ñçóéíïðíéäßðâ òçí áíðíêP `frebsd-update cron` ððí äñ÷:äßí crontab(1) äéá íá äéä÷éððíðíêçèäß ç ðééáíüðçðâ íá äßíäðáé áíáÝüòç òçí ßäéä òðéäìP äðu Ýíá íääÜêí äñèèü ïç÷:áíçÜðüí.

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

Ç 0âæã0ôáßá áðéeĩāP áíááÛèíóçò, ìÝòù òùì CD âæáoÛóóáoçò, âßíáé áñêáoÛ íæèÛeáñç. Áðèðò âêêéìPóðâ áðü òì
 CD âæáoÛóóáoçò éáé áðéeÝíòâ òçì áíòßòíé÷ç áðéeĩāP áíááÛèíóçò (upgrade).

8 procfs: ÐǎñáóìÝĩ áëëÜ ü÷é Îǎ÷áóìÝĩ

Ói Linux, á ÷ñááóâá íá áââôá ôi /proc/sys/net/ipv4/ip_forward áéá íá éâëññóáôá áí áíáíé áíáññíðéííÝí c ðñíèèéí IP (IP forwarding). Ói FreeBSD á ðñÝðáé íá ÷ñéóéíðééóáôá ôi sysctl(8) áéá íá áââôá

ἀόδῖ ἐάε Ὑεῖαδ ἡδὲβόαέδ οἷο ὁδὸδῖαδῖδ, ἐάεῖδ οἷ procfs(5) ἐαῦἡαβόαέ δᾶἡν÷çìÝîí ὁᾶ δἡῦὁᾶᾶδ ᾶεῦὁᾶέδ οἷο ἐᾶέδῖἡᾶέῖ. (Αἱ ἐάε ç ᾶἰῖῖῖῖ sysctl ᾶβἱᾶέ ᾶδβόçδ ᾶέᾶῖῖῖ ἐάε ὁἷ Linux).

Ὀἷ δᾶἡὙᾶῖᾶ ὁçδ δἡἡῖῖῖῖ IP, ἐᾶ ÷ἡçὁῖἡἡἡἡἡἡ ὁçἱ ᾶῖῖῖῖῖ ᾶἰῖῖῖῖ ᾶῖ ἱᾶ ἐᾶῖἡἡἡἡἡ ᾶἱ ç ᾶἡἡὁὁὁὁᾶ ᾶὁὁῖ ᾶβἱᾶέ ᾶἡἡἡἡἡἡἡἡἡἡ ὁᾶ Ὑἱᾶ FreeBSD ὁῖὁὁἡ:

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

Ç ᾶῖῖῖῖῖ -a ÷ἡçὁῖἡἡἡἡἡἡ ᾶῖ ἱᾶ δὙἡἡἡἡ ἱᾶ ῖβὁᾶ ἱᾶ Ὑῖᾶδ ὁῖδ ἡδὲβόαέδ οἷο ὁδὸδῖαδῖδ:

```
% 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
...
```

Ὀçἱᾶβὁὁç: ἘὙἡῖᾶδ ᾶὁὙ ὁῖδ ὁῖὙδ ὁἷ ᾶᾶḃḃḃḃḃḃḃḃ ç ᾶἰῖῖῖῖ sysctl ᾶβἱᾶέ ἱὙἡ ᾶῖ ᾶἱᾶἡὁç.

ὈδὙἡ÷ἡἡἡ δᾶἡῖὁḃὁᾶῖδ Ὑἡἡ ᾶδᾶῖὁᾶḃὁᾶῖ ὁἷ procfs, ὙὁὙδ ᾶῖ δᾶἡὙᾶῖᾶ Ὑὁᾶἱ ᾶῖὁᾶῖᾶḃὁᾶ δᾶῖῖὁᾶἡἡἡ ῖἡᾶῖῖῖῖ, ὁἷ ἡἡἡἡ ῖὙἱᾶῖ ÷ἡḃὁç ὁçδ ᾶἰῖῖῖῖ truss(1) ᾶῖ ὁçἱ ᾶἡḃḃḃḃḃḃḃ ὁἷ ῖῖḃὁᾶἡ ὁδὸδῖαδῖδ, ἐᾶῖ ᾶῖ ὁçἱ Ὀἡἡᾶὁὁὁὁᾶ ἱᾶ ἈῖὁᾶῖὙὁῖᾶ ὁἷ Linux (http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/linuxemu.html). (Αἱ ἐάε ç Ὀἡἡᾶὁὁὁὁᾶ ἱᾶ ἈῖὁᾶῖὙὁῖᾶ ὁἷ Linux ÷ἡçὁῖἡἡἡἡἡ ὁἷ ᾶῖῖῖ ὁçδ procfs, ὁἷ linprocfs(5)). Αἱ ÷ἡᾶῖὙᾶᾶᾶ ἱᾶ δἡἡὁᾶἡḃὁᾶ ὁἷ procfs, ἡἡἡᾶḃὁᾶ ἱᾶ δἡἡὁῖὙὁᾶᾶ ὁçἱ ᾶῖῖῖῖῖ ᾶᾶἡᾶὁῖ ὁἷ ᾶἡ÷ᾶḃἱ /etc/fstab:

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

Ὀçἱᾶβὁὁç: Ç ᾶῖῖῖῖῖ noauto ἐᾶ ᾶἡἡᾶḃὁᾶῖ ὁçἱ ᾶὁὁἡἡᾶὁç δἡἡὙἡἡὁçδ ὁἷδ /proc ἐᾶὁὙ ὁçἱ ᾶῖῖῖῖὁç ὁἷδ ὁδὸδῖαδῖδ.

δἡἡὁᾶἡḃὁᾶ ῖᾶὁὙἡῖ ὁçἱ procfs ÷ἡçὁῖἡἡἡἡἡἡ ὁçἱ ᾶῖῖῖῖῖ ᾶἰῖῖῖῖ:

```
# mount /proc
```


9 ÓõỉçèéóìÝíàò ÅíôïëÝò

9.1 Äéá÷ãßñéóç ÐáêÝôùí

Αίσιπ δισ Linux (Red Hat/Debian)	Αίσιπ δισ FreeBSD	Οέισι
yum install <i>package</i> / apt-get install <i>package</i>	pkg_add -r <i>package</i>	Αάάάδισάόσι δάέΎδισ άδισ άδισάέδισάόσιΎδισ άδισάέδισάόσι
rpm -ivh <i>package</i> / dpkg -i <i>package</i>	pkg_add -v <i>package</i>	Αάάάδισάόσι δάέΎδισ
rpm -qa / dpkg -l	pkg_info	Εβδισά άάάάδισάόσιΎδισ δάέΎδισ

9.2 Äéá÷βñéóç ÓõóôÞíáôïò

Αίγιεπ Linux	Αίγιεπ FreeBSD	Όεϊδύο
lspci	pciconf	Έβόα όόέάοπι PCI
lsmod	kldstat	Έβόα οϊπδύι Υίυί άπññύϊδύι δδñΠία
modprobe	kldload / kldunload	Όυñδύοζ/Άδϊδύñδύοζ άπññύϊδύι δδñΠία
strace	truss	Άίβ÷ιάδόζ έεΠόάύι όόόδΠιάδύο

10 ÓõìďǎñŮóìáôá

[illegible]