

İläçãüò ÃñPãĩñçò Âêêßícóçò ôĩö FreeBSD ãéá × ñPóôåò 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 \$

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Ôĩ FreeBSD âßíáé Ýíá éãõĩ÷õñüíÝĩĩ àìðĩñééü öýíãĩëĩ ôĩö FreeBSD Foundation.
Ôĩ Linux âßíáé Ýíá éãõĩ÷õñüíÝíá àìðĩñééü öýíãĩëĩ ôĩö Linus Torvalds óóéò ÇíüíÝíãò Đĩééôãßãò.
İé ëÝíãéò Intel, Celeron, EtherExpress, i386, i486, Itanium, Pentium, éáé Xeon âßíáé àìðĩñééÜ öýíãĩëã P
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àìðãĩßãĩĩãéé óã áõôü ôĩ éãßãĩĩĩ éáé äéá üóãò áõü áõôÝò àĩüñßããé ç İİÜää ÁĩÜðôðĩçò ôĩö FreeBSD üóé
âßíáé ðééãĩüĩ íá âßíáé àìðĩñééÜ öýíãĩëã, éã äãßãã Ýíá áõü óã öýíãĩëã: “™” P “®”.

Ôĩ éãßãĩĩĩ áõôü Ý÷÷äé óéĩðü íá àĩçèPóãé óçç ãñPãĩñç ãñĩééãßüóç ÷ñçóðþĩ Linux® İÝóĩö / ðñĩ÷÷ñçĩÝĩĩö
ãðéðÝãĩö İã óéò áãóééÝò Ýĩñĩãò ôĩö FreeBSD

Đßíãéãò Đãñéã÷ĩĩÝĩüĩ

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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 áέόάáñüáÞ όόι FreeBSD, έάέ ááί έά áíáόáñεñýíλá όά όθ÷ úí “όέέίόιόέéÝδ” áεάοιηÝδ ίαδóáý όúí áýí όόόόçιÝδóúí.

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 äêáÜóóáóâ ôi êâóÜêâêí ÄâêêêêóóÞiðóáó ôi FreeBSD (http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/install.html) óôí 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 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 óðíðäñëëíñÜ. Äëá ðáñÜÜäëäíá, ëÝðííðáð ççí `PACKAGESITE` ðóçí ðëíß <ftp://ftp.freebsd.org/pub/FreeBSD/ports/i386/packages-6-stable/Latest/> ëá ëáðäáÜðáëð óá ðëí ðñüððáðá äáëÝðá ðíð ððÜñ÷íð äëá çç óáëñÜ 6.X.

Άέά δάνέοούοάναό δέçñïŕñßå ò÷âôééÛ ìå ôå δåéÝôå, δάνάέάέÿÿå äéååÛôå ôçí åíüôçå 4.4 ôïí Åå÷åñßåéí ôïŕ
FreeBSD: ×ñçóéíîðéþîåå ôï Óýóôçíå Packages
(http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/packages-using.html).

3.2 Ports

Ç ääýðáñç ÿÿëïäüð äëá öçí ääëáðÛððáðç äðáññïäíð öðí FreeBSD äßíáç ç Óðëëëïäß ðüí Ports. Ç Óðëëëïäß ðüí Ports äßíáç Ýíá ðëáßðëí çäëðíðñäëðí ðñð äñðððäëäßðáç äðð Makefiles ëáç äñ÷äßä äëäðíñðí (patches) ðá ïðßßá Ý÷íðí äçíëíðñäçäß äëäëëÛ, ðððá ïá äßíáç äñðáðç ç ääëáðÛððáç äëÛíñí ðáðáññïäíð öðí FreeBSD äðð öñí ðççäßß ëðáëëá ðñðð. ¼ðáí ääëäëëððÛðá Ýíá port, ðí óýððçíá çä ëáððäÛðáç öñí ðççäßß ëðáëëá, çä äðáññíðáç ùëäð ðëð äðäëðýíýññáð äëëäáÝð ÷ñçóëíððñëððáð ðá patches, çä ïáððäëëüðððáç öñí ëðáëëá, çäç öÝýíð çä ääëáððáðððáç öçí äðáññïäß. Èä äëëëíðððáç öçí ßäëá äëääëëäðßá çäç äëá ïðñäáßððñðá ðð÷ ùí äñáñðññíá ðññññÛññáð.

Ìðíñàßòá íá àñàßòá òçí ÓðèèràÞ òùí Ports (ç ìðíßá ìáñéëÝð òìñÝð áíáóÝñáðáé éáé ùð “àÝíòñì òùí ports”), óòñí éáoÙèràì /usr/ports. Áðòù áÝááéá ðñìùðìéÝðáé ùðé áäéáðáóðßóáðá òçí ÓðèèràÞ òùí Ports éáoÙ òç äéÙñêáéá òçð áäéáðßóðáóçð òìð FreeBSD. Áí ááí òì Ý÷-áðá èÙíáé, ìðíñàßòá íá òçí ðñìòéÝðáðá áðu òì CD áäéáðßóðáóçð ìá òçí áìÞæáéá òìð sysinstall(8) Þ íá òçí éáoääßóáðá áðu òìðð áìððçñáðòçÝð òìð FreeBSD ÷ñçóèìðìéþìáð òçí áíòìèÞ csup(1) Þ òçí áíòìèÞ portsnap(8). Ìðíñàßòá íá àñàßòá èáððñáñáßò ìáçáßáð áéá òçí áäéáðßóðáóçð òçð ÓðèèràÞ òùí Ports òçí áíùòçðá 4.5.1 (http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/ports-using.html) òìð áä÷áñéáßìð.

Ç ääëäóÜóóäóç äíüò port äßíäë ääíëëÜ öüöí äðëP üöí öí íá áéóÝëëäöä öüíí ëäöÜëíäí öíö ëäë íá íäëëíPóäöä öçí äëääëëäößá íäöääëpöóëöçö. Ööí äëüëíöëí äänÜääëäíä 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 ëñäéóíééñý áñíáé ç ééáíuòçóá ðññóáñññäÞð òuí áðééñäÞí
 áäéáðÜóóáóçð. Áéá ðáñÜáäéäñí, uóáí áäéáééóðÜóá òñí **Apache 2.2** áðu óá ports ðñññáßòá íá áñáññäññéÞóáòá óçí
 áðééñäÞ **mod_ldap** èÝññíóáð áðéðð òéñÞ óóç íàðáäéçðÞ **WITH_LDAP** òñð **make(1)**:

```
# 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), áéá ðãñéóóüôãñãð ðëçñïïñßãð ó÷ãóééÜ ïà ôç Óôëëïãß ôúi Ports.

3.3 Ports Þ ááêÝôá, ôé ðñÝðáé íá ÷ñçóéìðïéÞòù;

[illegible]

ĐáêÝôá (Ýôïëíà àêôãëÝóéíà)

- [illegible]

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.** (ὁ λαός σου ἐστὶν ὁ λαός σου) (patches) ἀπὸ τοῦ ἀνθρώπου.

Ἄν ἀὰν Ὑ ÷ ἀὸα ἀεᾶεῤῥὸ ἀδᾶεῦῤῥᾶεῤ, ὁα δᾶεῤῥᾶ δᾶεᾶῖῤ ἐὰ ὁᾶδ ἐᾶεῤῥᾶῖ ἰεᾶ ÷ ᾶῖῤ. Ἀῖ ὑὸῦῥᾶ ÷ ᾶᾶῤᾶᾶᾶ ἰᾶ
 ᾶῖῥᾶῖῥᾶᾶᾶ ἔῤῥᾶᾶᾶ ᾶᾶᾶᾶᾶᾶ, ὁῦᾶ ḡ ἰῤᾶῖᾶᾶ ὁῖῤ ᾶῖᾶᾶ ḡ ἐᾶεῤᾶᾶ. (Ἐᾶᾶ ὀῖḡᾶᾶᾶ, ἰᾶ ÷ ᾶᾶῤᾶᾶᾶ ὁᾶ
 ᾶῖῥᾶῖῥᾶᾶ ᾶᾶῤ ᾶῖῥᾶῖῤᾶ ὁᾶ ὁᾶ ὁᾶῤᾶ, ἰᾶᾶᾶᾶ ἰῤᾶ ὁḡ ὀᾶᾶᾶᾶ ὁῖῤ ᾶῖᾶᾶ ἰᾶ ὀᾶῤᾶᾶ ὁᾶ ᾶᾶῤ ὁᾶᾶ
 ᾶῖῥᾶῖῥᾶῖῤᾶ ὁᾶ ὁᾶῤᾶ ÷ ᾶḡᾶῖῖᾶᾶᾶᾶ ὁḡ ἰᾶᾶᾶᾶ *make package* ἔᾶᾶ ἰᾶᾶᾶῤᾶᾶᾶ ὁᾶ ὁᾶ ὁᾶ ᾶῖᾶᾶᾶᾶᾶᾶ
 ὁᾶ ῤᾶᾶ ἰḡ ÷ ἰᾶᾶᾶᾶ.)

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

Οι Linux ÷ ηςοείηθιέας οι όγούγια âêßícòçð SysV, âη οι FreeBSD ÷ ηςοείηθιέας οι θανάαιόεαυ όγούγια âêßícòçð BSD. Οι όγούγια init(8) όγθω BSD, ââι όθŨñ÷ιρι run-levels, ιγθα οι âñ÷âñι /etc/inittab. Αίθβ âéâ άόθŨ, ç âêßícòç âéYâ÷âθâ άθυ Ýíâ script âêßícòçð, οι rc(8). Το script /etc/rc âéâŨæâé οι âñ÷âñι /etc/defaults/rc.conf êâé οι âñ÷âñι /etc/rc.conf âéâ íâ êâèηθóâé θιέâθ όθçηâóââθ θηυêâéόâé íâ íâêèθιρι. Íé όθçηâóââθ άόθYθ íâêèYíâ íâ όçι âéθYêóç όυι áιθβóιη÷÷ι script âêßícòçð θιθ âηθβέηθóâé όθιθ όâάéüιθιθ /etc/rc.d/ êâé /usr/local/etc/rc.d/. Όâ scripts άόθŨ âñíâé θâηυιέâ íâ όâ scripts θιθ âηθβέηθóâé όθιθ êâθŨêâι /etc/init.d/ όâ όóóθθιáόâ Linux.

Ἀέάββ ὁδῦñ÷ῖοι ἄγρ ὀιδιῖῖῖῖῖῖῖ Ἀέᾶ ὀᾶ scripts Ἀέῖῖῖῖῖῖῖ ὀῖῖ ὀδῖῖῖῖῖῖῖ; Ὀᾶ scripts ὀῖῖ ἄῖῖῖῖῖῖῖῖ ὀῖῖῖ ἑᾶὀῖῖῖῖῖ /etc/rc.d/ ἄῖῖᾶῖ Ἀέᾶ ἄὀᾶῖῖῖῖῖῖῖ ὀῖῖ ἄῖῖῖῖῖῖ ὀῖῖ “ᾶὀῖῖῖῖ” ὀῖῖὀῖῖῖ. (Ἀέᾶ ὀᾶῖῖῖῖῖῖῖ, ὀῖὀ cron(8), sshd(8), syslog(3), ἑᾶῖ ῖῖῖῖῖῖῖῖ). Ὀᾶ scripts ὀῖῖ ἄῖῖῖῖῖῖῖῖ ὀῖῖῖ ἑᾶὀῖῖῖῖῖ /usr/local/etc/rc.d/ ἄῖῖᾶῖ Ἀέᾶ ἄὀᾶῖῖῖῖῖῖῖ ὀῖῖ ῖῖ÷ῖοι ἄἑᾶὀῖῖῖῖῖῖῖ ἄὀῖ ὀῖὀ ÷ ῖῖῖὀὀὀ, ῖὀὀ Ἀέᾶ ὀᾶῖῖῖῖῖῖῖ ῖ **Apache**, ὀῖ **Squid**, ἑ.ἑ.ὀ.

[illegible][illegible]

Οἱ ἀεὺεῖρεῖ ἀδὺοδᾶοῖᾶ ἀδὺ οἱ ἀν÷ᾶβι /etc/rc.conf ἀἰᾶᾶᾶᾶᾶᾶᾶ ὁᾶ ὀδᾶᾶᾶᾶᾶᾶ sshd(8) ἐᾶε οἱ **Apache 2.2**. Ἀδᾶᾶᾶ ᾶᾶᾶᾶᾶᾶ ὡδᾶ ἰ **Apache** ἐᾶ ἰᾶᾶᾶᾶᾶᾶ ἰᾶ ἀἰᾶᾶᾶᾶᾶᾶᾶ Ἰᾶ ὁᾶ ᾶᾶᾶᾶᾶᾶᾶᾶᾶᾶ SSL.

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

Ἄδῡ ὁϙ ὀόεἰἵP ḑiō iéá ὀδϙñáḡḡá áíáñḡḡiḑéϙéḡḡ ὀḡi ḡñ÷ḡḡi /etc/rc.conf, ḡḡñḡḡḡḡ íá ὁϙi íḡééiḡḡḡḡ ḡḡḡḡḡḡḡ
 ḡḡḡ ὁϙ ḡñḡḡḡP ḡiḡḡḡḡ (÷ḡñḡḡ íá ÷ñḡḡÛḡḡḡḡ íá ḡḡḡḡḡḡḡḡḡḡ ḡi ὀýḡḡḡḡḡ 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 íá ôçí áðééñäP 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 ἱέᾱ ᾱέᾱῖᾱῖᾱ ᾱέᾱῖῖῖ, ὁἱ FreeBSD ÷ῡῖῖῖῖῖῖῖ ῖῖ ἀίᾱᾱῖῡῆόόέϋ ὁἱ ῖῖῖῖ ὁἱ ῖῖῖῖῖῖῖῖ ῖᾱῖᾱῖῖῖ ᾱῖῖῖῖῖῖῖῖ ᾱῖῖ ῖῖῖ ᾱῖῖῖῖ. Ç ᾱῖῖῖῖῖ ῖῖῖῖ ᾱῖῖ ὁῖ ᾱῖῖῖῖῖ *ifconfig(8)* ᾱῖῖ ÷ῖῖ ᾱῖῖ ῖῖῖῖῖ ᾱῖῖῖῖῖ Intel® Pro 1000 (ῖᾱ ἀίᾱᾱῖῡῆόόέϋ *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 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 ÑõèìΒóáéò Äéáõðèýíóαùí IP

[illegible]

```
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÷þñçóc ãéá íá êáèiñßóâôâ üôé iéá áéâðáöÞ èá êáîâÛiáé ñöëißóáèò iÝòù DHCP:

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

6 Firewall

Όλοι Linux ÷ $\eta\kappa\epsilon\iota\tau\epsilon\iota\sigma\tau\epsilon\iota\varsigma$ **οι IPTABLES** οι $\tau\iota\beta\iota\tau\iota$ $\delta\alpha\lambda\acute{\upsilon}$ ÷ $\acute{\alpha}\epsilon$ $\delta\epsilon\chi\eta\tau\alpha\iota$ firewall $\acute{\omicron}\acute{\alpha}$ $\acute{\alpha}\delta\beta\lambda\alpha\iota\tau\iota$ $\delta\omicron\eta\mu\acute{\alpha}$. Οι FreeBSD $\delta\alpha\lambda\acute{\upsilon}$ ÷ $\acute{\alpha}\epsilon$ $\acute{\alpha}\delta\beta\lambda\alpha\iota\tau\iota$ firewall $\acute{\iota}\acute{\gamma}\omicron\upsilon$ $\delta\iota\omicron$ $\delta\omicron\eta\mu\acute{\alpha}$. $\acute{\text{A}}\epsilon\acute{\alpha}$ $\delta\epsilon\iota$ $\acute{\alpha}\eta\eta\beta\acute{\alpha}\acute{\alpha}\epsilon\acute{\alpha}$, οι FreeBSD $\delta\alpha\lambda\acute{\upsilon}$ ÷ $\acute{\alpha}\epsilon$ $\delta\eta\mu\acute{\alpha}$ firewalls:

- IPFWALL (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)

Ôî **IPFIREWALL** þ **IPFW** (ç áföreb ÷ ænééoiüy öui éafúur öï **IPFW** ábíáé ç ipfw(8)) ábíáé ôî firewall ðrö Ý ÷ æ áfádðð ÷ eab éáé oóioçñábðáé aðu öçi nÜä árÜððoicð öio FreeBSD. Ôî **IPFW** iðináb íá oóíāáoóðáb iā ôî dummynet(4) áéá íá ðánÝ ÷ æ äöíáóüöcðað äéáiünöüocð öcð ebícócð ðæÝöui (traffic shaping) éáé íá ámniépíáé äéäöínāöééiyð öýðrðð ööíāÝóáuü äéööyio.

ĐánÜäëàìà áíùò éáíuíá ôiõ **IPFW** ðiõ ãðëõñÝðäé áéóãñ÷ùìáíá äããñÝíá ðñið ôçí õðçñãóá **SSH**:

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

Ôi **IPFILTER** ãbíáé íeá ãóáñíãP firewall ðïó áíáððýóóãóáé áðü ôíí Darren Reed. Äáí Ý÷-æé ööéá÷-ðãß áéáéêÜ áéá ôí FreeBSD, éáé Ý÷-æé íãðóãñëãß éáé óá Üëëä éáéðíõñãéêÜ, óðíðãñééãíãááíí Ýýíú ôùí NetBSD, OpenBSD, SunOS, HP/UX, éáé Solaris.

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

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

Ç òàèãòòàáá àòàñìràP firewall, òì **PF**, áíáðóýòóòáé áðü òì OpenBSD project. Ôì **PF** àçìéròñãPèçèà ùò áíòèéáòáóòÜòçò òìò **IPFILTER**, èáé Ýòóé ç óýíòáç òìò **PF** àáíáé àñèàòÜ ðañüüíèá 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 áéóañ÷ùiáíá äääiñÝíá ðñiò ôçí òðçñáóßá **SSH**:

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

7 Άίαâáèìβæïïôáò ôï FreeBSD

ÖðÜñ÷ïïĩ ññáéò ìÝëïäïë áéá ôçĩ áíááÜëïéóç áũüò óóóóPíáòïrò FreeBSD: ÌÝóù òïò ðçááßïrò êpáééá, ìÝóù Ýðïëüĩ (binary) áíáááèìßóáũĩ, êéé ìÝóù òũĩ CD äãêáôÜóóáóçð.

Ç äæäðÛððáðç ìÝóù òìð ðçäâìð òðäéä äâìäé ç ðér ðìèýðèìèç, äæÛ ðñìòóÝñäé éäé òç ìääæýðäñç äðìáðð äðäéèìâä. Ç äéääéäðâä äððð ðäñééäìäÛìäé òì òðä÷ñìéòìù òìð òìðéèèý áìðéäñÛìòì òìð ðçäâìð òðäéä òìð FreeBSD ìä òìí òðäéä òìð FreeBSD ðìò äñððéäðäé òóìðð äìððçñäðçÝð CVS (Concurrent Versioning System). Äðù òç òðéäìð ðìò òì òìðéèù áìðâñäðì ðçäâìð òðäéä äâìäé äìáíäùÝñì, ìðñäððä ìä ìäðäæùððððäðä ìÝäð äæäùäæð òìò ððñðñä éäé òùì ääðéèð ðñìäñäìÛðùì. Äéä ðäñéòóùðäñäð ðççñìòìñâðð ò÷÷äðéèÛ ìä òì óýððçìä äìáäÛèìèòçð ìÝóù ðçäâìð òðäéä, äâððä òì èäðÛèäéì ÄìçìÝñòóç éäé ÄìáäÛèìèòç (http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/updating-upgrading.html) òòì Ää÷äéñâäéì 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 όάέδΥ έάέάοΠιάόά άέοΥέάος οςό, ιά ος ÷ñΠός οίò cron(8).

Όγιὰβυός: Αί δñüēääéáé íá ÷ ñçóéíïðíéΠάððά õï cron(8) äéá ðñĩāñáíìäóéóíÝíäð áíáääèìßóáéð, ääääéùèäßððä üðé ÷ ñçóéíïðíéäßðä öçí áíðíēΠ freebsd-update cron ððí äñ÷:äßí crontab(1) äéá íá äéä÷éóðíðíéçèäß ç ðééáíüðçðä íá äßíäóáé áíáÝíüóç öçí ßäéä óðéäìΠ äðü Ýíá íääÜēí äñèèìü ïç÷:áíçÜððüí.

```
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 äðëëÝíòá òçí áíððóðíë÷ç äðëëïãP áíááÛëíóçð (upgrade).

8 procfs: ĐăñáóìÝĩ áëëÜ ü÷é Îă÷áóìÝĩ

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

ἀόδῖ ἐὰς Ὑεῖαδ ἡδὲβόαέδ οἷο ὁδὸδῖαδῖο, ἐὰεῖδ οἷ procfs(5) ἐὰῦἡβόαέ δᾶἡν÷çìÝîí ὁᾶ δἡῦὁᾶᾶδ ᾶεῦὁᾶέδ οἷο ἐᾶέοἷἡᾶέῖ. (Αἷ ἐὰς ç ᾶἱὅῖῖῖ sysctl ᾶβἱᾶέ ᾶδῖόçδ ᾶέᾶῖῖῖ ἐὰς ὁἱ Linux).

Ὀἱ δᾶἡὙᾶῖᾶ ὁçδ δἡἡῖῖῖῖ IP, ἐὰ ÷ἡçὁῖἡἡἡἡἡἡ ὁçἱ ᾶῖῖῖῖῖ ᾶἱὅῖῖῖ ᾶῖ ἱᾶ ᾶῖἡἡἡἡἡἡ ᾶἱ ç ᾶὁἱᾶὁὁçὁᾶ ᾶὁὁῖ ᾶβἱᾶέ ᾶἡἡἡἡἡἡἡἡἡἡ ὁᾶ Ὑἱᾶ FreeBSD ὁῖὁçἱᾶ:

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

Ç ᾶῖῖῖῖῖ -a ÷ἡçὁῖἡἡἡἡἡἡ ᾶῖ ἱᾶ δὙἡἡἡἡ ἱᾶ ῖῖὁᾶ ἱᾶ Ὑῖᾶδ ὁῖδ ἡδὲβόαέδ οἷο ὁδὸδῖαδῖο:

```
% 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
...
```

ὈçἱᾶḂὁç: ἘὙὅῖᾶδ ᾶὁὙ ὁῖδ ὁῖὙὁ δἡὁ ᾶᾶḂḂḂḂḂ ç ᾶἱὅῖῖῖ sysctl ᾶβἱᾶέ ἱὙἡ ᾶῖ ᾶἱᾶἡὁç.

ὈδὙἡ÷ἡἱ δᾶἡῖδὁḂὁᾶῖ Ὑὅἡ ᾶδᾶῖὁᾶḂὁᾶῖ ὅἱ procfs, ὙὅὙ ᾶῖ δᾶἡὙᾶῖᾶ Ὑὁᾶἱ ᾶῖὁᾶῖᾶḂὁᾶ ὁᾶῖὙὁᾶἡἡ ῖἡᾶῖῖῖῖ, ὅἱ ἡὅἱῖ ῖὙἱᾶῖ ÷ἡḂὁç ὁçδ ᾶἱὅῖῖῖ truss(1) ᾶῖ ὁçἱ ᾶἱḂḂḂḂḂḂ ἱᾶὁç ὁἡἱ ῖῖḂὁᾶἡ ὁδὸδῖαδῖο, ἐὰς ᾶῖ ὁçἱ Ὀὅἱᾶὁὁçὁᾶ ἱᾶ Ἀῖὁᾶῖῖῖᾶ ὅἱ Linux (http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/linuxemu.html). (Αἷ ἐὰς ç Ὀὅἱᾶὁὁçὁᾶ ἱᾶ Ἀῖὁᾶῖῖῖᾶ ὅἱ Linux ÷ἡçὁῖἡἡἡἡἡἡ ὅἱ ᾶῖὙὁçδ procfs, ὅἱ linprocfs(5)). Αἷ ÷ἡᾶῖὙᾶᾶᾶ ἱᾶ δἡἡὁᾶḂὁᾶᾶ ὅἱ procfs, ἡὅἡᾶḂὁᾶ ἱᾶ δἡἡὁῖὙὁᾶᾶ ὁçἱ ᾶῖὙῖὅῖῖ ᾶᾶἡᾶὁῖ ὁἱ ᾶἡ÷ᾶḂἱ /etc/fstab:

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

ὈçἱᾶḂὁç: Ç ᾶῖῖῖῖῖ noauto ἐὰ ᾶἡἡᾶḂὁᾶῖ ὁçἱ ᾶὁὁἡἱᾶç δἡἡὁὙἡὁçὁç ὅἱὁ /proc ῖᾶὁὙ ὁçἱ ᾶῖῖῖῖὁç ὅἱὁ ὁδὸδῖαδῖο.

δἡἡὁᾶḂὁᾶᾶ ῖᾶὁὙὅῖ ὁçἱ procfs ÷ἡçὁῖἡἡἡἡἡἡ ὁçἱ ᾶῖὙῖὅῖῖ ᾶἱὅῖῖῖ:

```
# mount /proc
```


9 ÓõĩçèéóìÝíàò ÅíôïëÝò

9.1 Äéá÷åßñéóç ÐáêÝòùí

ΆίōīēĤ ôīō Linux (Red Hat/Debian)	ΆίōĤōōīē÷ç αίōīēĤ FreeBSD	Óēīōūō
yum install <i>package</i> / apt-get install <i>package</i>	pkg_add -r <i>package</i>	ΆāēáoŬōóáoç ḁáēÝōīō áđü áđñáēñōōīÝñī āīōđçñāōçōĤ
rpm -ivh <i>package</i> / dpkg -i <i>package</i>	pkg_add -v <i>package</i>	ΆāēáoŬōóáoç ḁáēÝōīō
rpm -qa / dpkg -l	pkg_info	Ēōóáo āāēáoāōóçīÝñíúí ḁáēÝōúí

9.2 Äéá÷βñéóç ÓõóôÞíáôïò

ΆίόϊεP Linux	Άίόβόόίε÷ç αίόϊεP FreeBSD	Όείòùò
lspci	pciconf	ΈΒόόά όόόεάòπί PCI
lsmod	kldstat	ΈΒόόά öïñòùìÝíúí áñèñùìÛòùí ðòñPíá
modprobe	kldload / kldunload	Öüñòùòç/Áðïöüñòùòç áñèñùìÛòùí ðòñPíá
strace	truss	Άίβ÷íáòóç êëPóáùí óóóóPíáôïò

10 ÓõìďǎñŮóìáôá

[illegible]