

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: Ἀἡ 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" Ύέαι̇ός ο̇ι̇ο FreeBSD (6.2, 6.3, 7.0, έ̇έ̇δ̇. δ̇ι̇ο α̇αίέ̇ε̇ϋ̇ ι̇δ̇ι̇η̇α̇βδ̇ά ιά α̇αέ̇α̇δ̇α̇ο̇δ̇ρ̇α̇δ̇α̇ α̇δ̇ϋ̇ CD-ROM) ς̇ α̇ι̇ο̇ι̇ε̇ρ̇ pkg_add -r ε̇ά ε̇α̇δ̇α̇α̇ϋ̇ο̇ά̇ε̇ δ̇ά δ̇αέ̇Υ̇ο̇ά δ̇ι̇ο ο̇δ̇ε̇ϋ̇÷ο̇ς̇ε̇α̇ι̇ α̇ε̇ά α̇δ̇ο̇ρ̇ ο̇ς̇ ο̇δ̇α̇ε̇α̇η̇ε̇ι̇Υ̇ίς̇ Ύέαι̇ός. Ο̇ά δ̇αέ̇Υ̇ο̇ά α̇δ̇ο̇ϋ̇ *βου̇δ̇ α̇α̇ι̇ δ̇α̇η̇έ̇Υ̇÷̇ι̇ο̇ι̇* ο̇ε̇δ̇ δ̇ε̇Υ̇ί̇ι̇ δ̇α̇ε̇α̇δ̇ο̇ά̇βδ̇α̇ α̇ε̇α̇ϋ̇ο̇ά̇ε̇ο̇ ο̇υ̇ι̇ α̇δ̇α̇η̇ι̇α̇ρ̇ι̇. ι̇δ̇ι̇η̇α̇βδ̇ά ιά ÷ η̇ςοείι̇ι̇δ̇ι̇ε̇ρ̇α̇δ̇α̇ ο̇ς̇ι̇ ι̇α̇δ̇α̇α̇ε̇ς̇ο̇ρ̇ δ̇α̇η̇έ̇α̇ϋ̇ε̇ε̇ι̇ο̇ι̇δ̇ο̇ [PACKAGESITE](#) α̇ε̇ά ιά δ̇α̇η̇ά̇ε̇ϋ̇ο̇ά̇ε̇ α̇δ̇ο̇ρ̇ ο̇ς̇ι̇ δ̇η̇ι̇α̇δ̇ε̇ε̇α̇ι̇Υ̇ίς̇ ο̇δ̇ι̇δ̇α̇η̇έ̇ο̇ι̇η̇ϋ̇. Α̇ε̇ά δ̇α̇η̇ϋ̇α̇α̇ε̇α̇ι̇α̇, ε̇Υ̇ο̇ι̇ι̇ο̇ά̇ ο̇ς̇ι̇ [PACKAGESITE](#) ο̇ό̇ς̇ι̇ ο̇έ̇ι̇ρ̇ <ftp://ftp.freebsd.org/pub/FreeBSD/ports/i386/packages-6-stable/Latest/> ε̇ά ε̇α̇δ̇α̇α̇ϋ̇ο̇ά̇ε̇ δ̇ά δ̇έ̇ι̇ δ̇η̇ϋ̇ο̇ά̇ε̇ δ̇αέ̇Υ̇ο̇ά δ̇ι̇ο ο̇δ̇ϋ̇η̇÷̇ι̇ο̇ι̇ α̇ε̇ά ο̇ς̇ ο̇ά̇ε̇η̇ϋ̇ 6.X.

IdinaBda ía áeááÜoááá ðáneoóüóááá áeá óeó áeäüóáeó öíö FreeBSD öíö Üñeñí ÁðeeYáííóáó öç ÓúóöP áeá ÁöÜö êäíóc öíö FreeBSD (http://www.FreeBSD.org/doc/en_US.ISO8859-1/articles/version-guide/).

Άέά δάνεόουόαηάο δέçññοιηβáο ò÷âôééÛ ìà ôá δαéÝôá, δάηάεαεγγíα áéááÛóôá 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 ääyôäñç Ýÿëäüð äëä öçí ääëäüÜðäôäç äöäñíäíäí öðí FreeBSD äáíäë ç Óðëëëäíäü öüí Ports. Ç Óðëëëäíäü öüí Ports äáíäë Ýíä äëäüöëí çäëöíöñäëíäí äíö äíöðäëäüðäë ääü Makefiles ëäë äñ÷äü äëäöíñíäí (patches) öä íðíäíä Ý÷íöí äçíëíöñäçäü äëäëëÜ, þöðä íä äáíäë äíöäüð ç ääëäüÜðäôäç äëÜöíñíäí äöäñíäíäí öðí FreeBSD ääü öíí äçäááíä ëþäëä öíöð. ¼öäí ääëäëëöðÜðä Ýíä port, öí öýööçíä ëä ëäöäüÜðäë öíí äçäááíä ëþäëä, ëä äöäñíüöäë üëäð öëð äðäëöíýíäíäð äëëääÝð ÷ñçöíöíäíëíäíäð öä patches, ëä íäöääëüððöðäë öíí ëþäëä, ëäë öÝëíð ëä ääëäöäöðöðäë öçí äöäñíäíä. Èä äëëëíðëðöäë öçí ääëä äëääëäëäöäíä ëäë äëä íðíëääüðíöðä öð÷üí äíäñöþíäíä äñíäñÜíäöä.

Ἰδιναβὼὰ ἰὰ ἀναβὼὰ ὀçí ÔõëēīāP òùì Ports (ç ἰðĩβὰ ἰἀνέēÝò òĩñÝò ářáoÝñâóáē ēáē uò “àÝĩòñĩ òùì ports”), òôĩ ēáoÛēīāĩ /usr/ports. Áōòũ àÝááéá ðñĩũðĩēÝóäē uòē āēēáoáóÓPóáoâ òçí ÔõëēīāP òùì Ports ēáoÛ òç äēÛñēáéá òçò āāēáoÛóóáoçò òĩō FreeBSD. Áĩ āār òĩ Ý÷âò ēÛĩāē, ἰδιναβὼὰ ἰὰ ὀçí ðñĩóēÝóâò áðu òĩ CD āāēáoÛóóáoçò ἰà ὀçí âĩPēáéá òĩō sysinstall(8) P ἰὰ ὀçí ēáoääÛóáoâ áðu òĩðò âĩððçñâòçòÝò òĩō FreeBSD ÷ñçóēĩðĩēĩPáoð ὀçí áříoēĩP csup(1) P ὀçí áříoēĩP portsnap(8). Ἰδιναβὼὰ ἰὰ ἀναβὼὰ ēãððòñāñâð ἰäçāBâð āēá ὀçí āāēáoÛóóáoçò òçò ÔõëēīāP òùì Ports óçí ářĩúçôâ 4.5.1 (http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/ports-using.html) òĩō āā÷āēñēāBĩō.

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** äðu öçí ÖðëëíäP öúí Ports:

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

já óçíáíóêéü ðeäííÝéôçíá ôçð ÷ ñÞóçð ports óçí áäeáoÜóóáoç ëíäeóíeéíý áßíáé ç éeáíúôçóá ðñíóáñííäÞð òúí áðeéäíþí
 áäeáoÜóóáoçð. Áeá ðánÜáäeäíá, úóáí áäeäeéóóÜðá òíí **Apache 2.2** áðu óá ports íðñíáßòá íá íáñáñüðíeÞóáòá ôçí
 áðeéäíþ **mod ldap** èÝóñíóáo áðeþð ðeéíÞ óóç íàðáäeçðÞ **WITH_LDAP** òíð **make(1)**:

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

ἈέάάṪṵṵṵ ὁῖ ἁίṵṵṵṵṵ 4.5 ὁṵ Ἀṵṵṵṵṵṵṵṵ ὁṵ FreeBSD, ×ṵṵṵṵṵṵṵṵṵṵṵ ὁῖ Ports Collection (http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/ports-using.html), ἁṵ ḁṵṵṵṵṵṵṵṵṵ ḁṵṵṵṵṵṵṵṵṵ ὁṵ Ṫṵṵṵṵṵṵṵ ἵṵ ὁῖ Ṫṵṵṵṵṵṵṵ ὁṵ Ports.

3.3 Ports Þ ðáéÝôá, ôé ðñÝðáé íá ÷ñçóéìðïéÞòù;

[illegible]

ĐáêÝôá (Ýôïéìá àêôãëÝóéìá)

- [illegible]

Ports (őçääßïò êpäéêáo)

- **Ἐξαιρουμένων τῶν ὑπολοίπων** ὁὐκ ἀδυνατῶν ἀναθεωροῦμεν τὴν ὁδὸν τῆς ἀποκατάστασης τῆς ἰσότητας (ἰσότητα). Ἡ ὁδὸς ποιεῖται ἀπὸ τῶν ὑπολοίπων τῆς ἀποκατάστασης, ὅπου ὁ ὅρος ἀποκατάστασης τῆς ἰσότητας, ὁ ὅρος ἀποκατάστασης τῆς ἰσότητας.
- **Ἰσότητα** ἰσότητας ὁὐκ ἀδυνατῶν ἀναθεωροῦμεν τὴν ὁδὸν τῆς ἀποκατάστασης τῆς ἰσότητας (ἰσότητα) ἀπὸ τῶν ὑπολοίπων τῆς ἀποκατάστασης τῆς ἰσότητας.

[illegible]

4 Αέεβίçόç ôĩõ ÓóóôΠιάôĩò: Ðĩõ áβιάέ ôá run-levels;

Οι Linux ÷ ηςοείηδιέαβ οι όγούοία âêêβίςοçð SysV, âηρ οι FreeBSD ÷ ηςοείηδιέαβ οι θάηάηιόεάεη όγούοία âêêβίςοçð BSD. Όοι όγούοία init(8) όγδιθ BSD, ââη όðŨñ÷ιθι run-levels, ιγθα όη âñ÷âβι /etc/inittab. Αίθβ âέα âοðŨ, ç âêêβίςοç âêŸâ÷âðâέ âðη Ÿία script âêêβίςοçð, οι rc(8). Το script /etc/rc âέαâŸæâέ οι âñ÷âβι /etc/defaults/rc.conf êάέ οι âñ÷âβι /etc/rc.conf âέα ίά êάειηθόάέ θιέαθ ððçηάθβâð θηηέâέðâέ ίά ίâέέηθιθι. Ιέ ððçηάθβâð âοðŸð ίâέέŸία ίâ όçι âέðŸέâοç ðηι âίθβθιθι÷ηι script âêêβίςοçð θιθ âηθβέηθόάέ όθιθð êάðâέüηιθð /etc/rc.d/ êάέ /usr/local/etc/rc.d/. Όά scripts âοðŸ âβιάέ θâηηιθέα ίâ όά scripts θιθ âηθβέηθόάέ όθιθ êάðŸêηι /etc/init.d/ όâ όðóðθιáðά Linux.

[illegible][illegible][illegible]

Όι άέυήρηϊ άδύοδάοία άδύ όι άñ÷÷ßι /etc/rc.conf άίάññϊδϊέάß όçι όδçñάόßά sshd(8) έάέ όñι **Apache 2.2**. Άδßόçò έάέññßάέ ύόέ ι **Apache** έά ίάέέϊßόάέ ίά άίάññϊδϊέçι Ýιç όç άϊόάόυόçά 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, ḑḑiñḑḑḑ íá ὁϙi íáēéiPḑḑḑḑ ḑḑḑḑēḑḑḑ
 ḑḑḑ ὁϙ ḑñḑḑḑP ḑiḑḑḑḑ (÷ḑñḑḑ íá ÷ñḑḑUḑḑḑḑ íá ḑḑḑḑíēēéiPḑḑḑḑ ḑi ὀýḑḑḑḑḑ 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 Äéeôýĩõ

Άϊόβ άέα ôï άαίέεü άίάάüñέόόέέü öýðïõ *ethX* ðïõ ÷ñçöéüðïέέåß ôï Linux άέα öçí άίάάüñέόόέέéάö äέαðåöðö äέέöýïõ, ôï FreeBSD ÷ñçöéüðïέέåß üð άίάάüñέόόέέéü ôï üññå öïõ ðññåñÜñåöïðö ïåðåçöðö äέíεíεíεýñåñ åðü Ýíå äñέέüü. Ç äέüεíεöç Ýññåö åðü öçí άíöíεß ifconfig(8) ååß÷íåé äýí êÜñåðå äέέöýïõ Intel® Pro 1000 (ñå άίάάüñέόόέέéÜ 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 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"
```

×ñçóëiïðiéΠóôâ ôçí áëüëiðëç êáôá÷þñçóç áéá íá êáëiñßóáôâ üôé iéá äéáðáöÞ éá éäiâÛiáé ñöëißóáèð iÝóù DHCP:

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

6 Firewall

Όλοι Linux → ηνζοείνιειάβθαάε οι **IPTABLES** οι ιδιβι θάνΥ → άε οδζηάοβαά 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)
- 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)

[illegible]

DánÜäëàìá áúò éáíuíá ôïð IPFW ðïð aðëônÝðæé æéoãñ÷ùìáíá äääñÝía ðñïð ôçí òðçñáoßá 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 ööéá÷-ðáß áéáéêÜ áéá ôí FreeBSD, éáé Ý÷-áé íáðóáññéáß éáé óá Üëéá éáéðíõñáéêÜ, óðíðáñééäíááííÝíúí ðúi NetBSD, OpenBSD, SunOS, HP/UX, éáé Solaris.

ĐánŨäâëàlà áíüò éáíuíá áéá ôi **IPFILTER** ðĩõ ãðéõñÝðäé áéóãñ÷:üìáíá áããñÝíá ðñĩò ôçí òðçñãóá **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.

ĐánÜäåēāiā êáíuíá ôiō **PF** ðiō ãðéônÝðǎé áéóǎñ÷ùìáíá äääñÝíá ðñiò ôçí õðçñǎóǎ **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 áúüò óóóóPíáòïò FreeBSD: ÌÝóù òïò ðçááßïò èpáééá, ìÝóù Ýðìèìì (binary) áíáááèìßóáùì, éáé ìÝóù öùì CD äãéäÜóóáóçò.

Ç ääëäðÛöðáöç ìÝóù òìð ðçäáßìð ëðäëä äßìäé ç ðér ðìëýðèìëç, äëëÛ ðñìòóÝñäé éäé öç ìäääëýðäñç äöìáðß äòäëëìßä. Ç äéääëäöðä äöðß ðäñëëäìäÛìäé öì öðä÷ñììéöìù òìð òìðëëëý áìðëäñÛìòì òìð ðçäáßìð ëðäëä òìð FreeBSD ìä òìì ëðäëä òìð FreeBSD ðìò äñßöëäðäé öóìòð äìððçñäðöçÝð CVS (Concurrent Versioning System). Äðù öç öóëäìß ðìò öì òìðëëù áìðßäñäì ðçäáßìð ëðäëä äßìäé äìáíäùÝñì, ìðñìäßðä ìä ìäðääëùòðßðäðä ìÝäð äëäùäðäëð òìò ððñßìä éäé òìì ääöëëßì ðñìäñäìÛòùì. Äëä ðäñëöóóùðäñäð ðëçñìòìñßäð ö÷äðëëÛ ìä òì öýðöçìä äìáäÛëìëöçð ìÝóù ðçäáßìð ëðäëä, ääßðä òì ëäòÛëäëì ÄìçìÝñòöç éäé ÄìáäÛëìëöç (http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/updating-upgrading.html) öóì Ää÷äëñäëì 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 οςο, ιά ος ÷ñΠός οίο cron(8).

Όγιὰβυός: Αί δñüēâéóáé íá ÷ ñçóéíïðíéPóáðâ ðí cron(8) äéá ðñĩãñáííäðéóíÝíäð áíááâèíßóáéð, äâââéüèâßðâ üðé ÷ ñçóéíïðíéâßðâ òçí áíðíēP `frebsd-update cron` ððí äñ÷:âßí crontab(1) äéá íá äēâ÷éððíðíēçēâß ç ðēéáíüðçðâ íá âßíäóáé áíáíÝüòç òçí ßäéá óðēâìP äòü Ýíá íäâÜēí äñēèìü ïç÷:áíçÜðòí.

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

Ç 0âæã0ôáßá äðéeĩāP áíááÛèíéóçð, ìÝòù òùì CD âæáoÛóóáoçð, âßíáé áñêáoÛ íæèÛeáñç. Áðèðò æêééìPóðâ áðü òì
 CD âæáoÛóóáoçð éáé äðéeÝíòâ òçì áíòßòíé÷ç äðéeĩāP áíááÛèíéóçð (upgrade).

8 procfs: ĐăñáóìÝĩ áëëÜ ü÷é Îă÷áóìÝĩ

Óôî Linux, èà ÷ñâéáóðâß íá äãßòâ ôï /proc/sys/net/ipv4/ip_forward áéá íá êâèññòáóðâ áí âíáíê
áíáñäïðíécíÝíc ç ðñìèèçóc IP (IP forwarding). Óôî FreeBSD èà ðñÝðæé íá ÷ñçóúïðñÉóáóðâ ôï sysctl(8) áéá íá äãßòâ

ἀόδῖ ἐάε Ὑεῖαδ ἡδὲβόαέδ οἷο ὁδὸδῖαδῖδ, ἐάεῖδ οἷ procfs(5) ἐαῦἡαβόαέ δᾶἡν÷çìÝîí ὁᾶ δἡῦόαδᾶδ ᾶεῦῖόαέδ οἷο ἐᾶέοἰἡᾶεῖ. (Αἱ ἐάε ç ᾶἰῖῖῖῖ sysctl ᾶβἱάε ᾶδβόçδ ᾶέᾶῖῖῖ ἐάε ὁἷ Linux).

Ὀἷ δᾶἡὙᾶεᾶἱ ὁçδ δἡἡῖῖῖῖ IP, ἐᾶ ÷ἡçóῖἡἡἱῖῖῖ ὁçἱ ᾶεῦῖῖῖ ᾶἰῖῖῖ ᾶέᾶ ἱᾶ ἐᾶῖἡῖῖῖῖ ᾶἱ ç ᾶῖᾶῖῖῖῖῖ ᾶῖῖῖ ᾶβἱάε ᾶἡᾶἡἡἡἡἡἡἡἡἡἡ ὁᾶ Ὑἱᾶ FreeBSD ὁῖῖῖῖῖῖ:

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

Ç ᾶῖῖῖῖῖῖ -a ÷ἡçóῖἡἡἱῖῖῖ ᾶέᾶ ἱᾶ δὙἡἡῖῖῖ ἱᾶ ῖῖῖῖῖ 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
...
```

Ὀçἱᾶβῖῖῖῖ: ἘὙῖῖῖῖῖ ᾶῖῖ ὁῖδ ὁῖῖῖῖ ῖῖῖ ᾶᾶῖῖῖῖ ç ᾶἰῖῖῖῖ sysctl ᾶβἱάε ἱῖἡἡ ᾶέᾶ ᾶἱὙᾶἱῖῖῖ.

ὈδὙἡ÷ἡἱἱ δᾶἡῖῖῖῖῖῖ Ὑῖῖῖ ᾶῖᾶῖῖῖῖ ὁἱ procfs, Ὑῖῖῖ ᾶέᾶ δᾶἡὙᾶεᾶἱ Ὑῖῖῖ ᾶῖῖῖῖῖῖ δᾶῖῖῖῖῖῖ ῖῖῖῖῖῖῖ, ὁἱ ἡῖἡἡἡ ῖὙἱᾶé ÷ἡῖῖῖ ὁçδ ᾶἰῖῖῖῖῖ truss(1) ᾶέᾶ ὁçἱ ᾶἱῖ÷ἱᾶῖῖῖ ὁἡἡ ῖῖῖῖῖῖ ὁδὸδῖαδῖδ, ἐᾶé ᾶέᾶ ὁçἱ Ὀῖἱᾶῖῖῖῖῖῖ ἱᾶ Ἀῖῖῖῖῖῖῖῖ ὁἷο Linux (http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/linuxemu.html). (Αἱ ἐάε ç Ὀῖἱᾶῖῖῖῖῖῖ ἱᾶ Ἀῖῖῖῖῖῖῖῖ ὁἷο Linux ÷ἡçóῖἡἡἱῖῖῖ ὁἱ ᾶῖῖῖ ὁçδ procfs, ὁἱ linprocfs(5)). Αἱ ÷ἡᾶῖῖῖῖῖ ἱᾶ δἡἡῖῖῖῖῖῖῖ ὁἱ procfs, ἡῖἡᾶῖῖῖ ἱᾶ δἡἡῖῖῖῖῖῖ ὁçἱ ᾶῖῖῖῖῖῖ ᾶᾶἡᾶῖῖῖ ὁἱ ᾶἡ÷ᾶἡἡ /etc/fstab:

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

Ὀçἱᾶβῖῖῖῖ: Ç ᾶῖῖῖῖῖῖῖ noauto ἐᾶ ᾶἡἡᾶῖῖῖῖ ὁçἱ ᾶῖῖῖῖῖῖῖ δἡἡῖῖῖῖῖῖ ὁἷο /proc ἐᾶῖῖ ὁçἱ ᾶῖῖῖῖῖῖ ὁἷο ὁδὸδῖαδῖδ.

δἡἡῖῖῖῖῖῖῖ ᾶᾶῖῖῖῖ ὁçἱ procfs ÷ἡçóῖἡἡἱῖῖῖῖῖ ὁçἱ ᾶῖῖῖῖῖῖ ᾶἰῖῖῖῖῖ:

```
# mount /proc
```


9 ÓõíçèéóìÝíàò ÁíôïëÝò

9.1 Äéá÷ãßñéóç ÐáêÝôùí

Αίσιϑο οῖσ Linux (Red Hat/Debian)	Αίσιϑοίε÷ç αίσιϑο FreeBSD	Οέισις
yum install package / apt-get install package	pkg_add -r package	ΆαέαιςΌόάός δαέΎοϊσ άδϑ άδϑίαέñóíΎñ ίσδçñáðçðß
rpm -ivh package / dpkg -i package	pkg_add -v package	ΆαέαιςΌόάός δαέΎοϊσ
rpm -qa / dpkg -l	pkg_info	ΈΒόά άαέαιςάóòçíΎñί δαέΎóùí

9.2 Äéá÷βñéóç ÓõóôÞíáôïò

Αίγιεπ Linux	Αίγιεπ FreeBSD	Όειδύο
lspci	pciconf	Έβόα όόέάοπί PCI
lsmod	kldstat	Έβόα οϊνδύίτς άνέñύϊΌδύί δδñΠία
modprobe	kldload / kldunload	Όññδύός/Άδϊδύñδύός άνέñύϊΌδύί δδñΠία
strace	truss	Άίβ÷ιάδός έέΠόάύί όόόδΠιάόϊδ

10 ÓõìďǎñŮóìáôá

Ἀδοῦδεοσύγία υἱὸς ἀδού οἱ ἐὰβιαῖ ῥάο δᾶνᾶβ-ᾶ ἀνεᾶοὺ δῆς νῖοῖν βᾶο ᾱῆ ᾶ ἱᾶῆῖ ῥᾶᾶ ᾶ οἱ FreeBSD. Ἀῆ ᾶ
 δᾶνῆοοοᾶνᾶδ ῆᾶ δῆῖ ῆᾶδᾶνᾶνᾶβδ δῆς νῖοῖν βᾶο, δᾶνᾶῆᾶῆῖ ᾶ ᾶῆᾶ Ὑᾶᾶ οἱ Ἀ-ᾶῆν βᾶῆῖ οἱ FreeBSD
 (http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/index.html) οἱ ἱδῖβ ᾶδβᾶς δᾶνῆ-ᾶῆ ῆᾶ ῆῆῆ
 ῆ Ὑᾶᾶ δῖᾶ ᾶᾶ ῆᾶῖᾶῆῆᾶ ῆᾶῖᾶ ᾶ οἱ δᾶνῖ ῆᾶᾶ.