

# Ἰᾱçãüò ÃñƆãĩñçò Âêêβίçόçò ôĩō FreeBSD ãéá × ñƆóôåò 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 \$

ḐĩᾱōĩᾱōēēŬ Äēēáēṑĩᾱᾱ © 2008 Ç ḽĩŬᾱᾱ Ôᾱēĩçñβùόçò ôĩō FreeBSD

Ôĩ FreeBSD ᾱβĩᾱé Ṗĩᾱ éᾱōĩ÷ ðñũĩŶĩĩ ᾱĩðĩñēēŬ ὀŷĩᾱĩēĩ ôĩō FreeBSD Foundation.

Ôĩ Linux ᾱβĩᾱé Ṗĩᾱ éᾱōĩ÷ ðñũĩŶĩᾱ ᾱĩðĩñēēŬ ὀŷĩᾱĩēĩ ôĩō Linus Torvalds ὀōēò ÇĩũĩŶĩᾱᾱ Ḑĩēēōᾱβᾱᾱ.

Ἰé ēŶĩᾱēò Intel, Celeron, EtherExpress, i386, i486, Itanium, Pentium, éᾱé Xeon ᾱβĩᾱé ᾱĩðĩñēēŬ ὀŷĩᾱĩēᾱ ṑ éᾱōĩ÷ ðñũĩŶĩᾱ ᾱĩðĩñēēŬ ὀŷĩᾱĩēᾱ ὀçò Intel Corporation éᾱé ὀũĩ ēᾱᾱᾱñēēṑĩ ὀçò ὀōēò ÇĩũĩŶĩᾱᾱ Ḑĩēēōᾱβᾱᾱ éᾱé ὀᾱ Ŭēēᾱᾱ ÷ ṑñᾱᾱ.

Ἰé ēŶĩᾱēò ṑ ðñŬᾱᾱēò Red Hat, éᾱé RPM ᾱβĩᾱé ᾱĩðĩñēēŬ ὀŷĩᾱĩēᾱ ṑ éᾱōĩ÷ ðñũĩŶĩᾱ ᾱĩðĩñēēŬ ὀŷĩᾱĩēᾱ ὀçò Red Hat, Inc. ὀōēò ÇĩũĩŶĩᾱᾱ Ḑĩēēōᾱβᾱᾱ éᾱé ὀᾱ Ŭēēᾱᾱ ÷ ṑñᾱᾱ.

Ç ēŶĩç UNIX ᾱβĩᾱé éᾱōĩ÷ ðñũĩŶĩĩ ᾱĩðĩñēēŬ ὀŷĩᾱĩēĩ ôĩō Open Group ὀōēò ÇĩũĩŶĩᾱᾱ Ḑĩēēōᾱβᾱᾱ éᾱé ὀᾱ Ŭēēᾱᾱ ÷ ṑñᾱᾱ.

ḐĩēēŶᾱ ᾱðũ ὀēò ēŶĩᾱēò ṑ ðñŬᾱᾱēò Ἰé Ἰᾱβᾱᾱ ÷ ñçὀēĩḐĩēĩŷĩᾱᾱ ᾱðũ ὀĩᾱᾱ éᾱᾱᾱēᾱᾱᾱᾱᾱᾱ ṑ ὀĩᾱᾱ

ðũēçὀŶᾱ ὀĩᾱᾱ ᾱᾱᾱ Ἰᾱ ᾱᾱᾱñβĩḐĩ ὀᾱ ðñĩũũĩᾱᾱ ὀĩᾱᾱ ᾱᾱññĩŷĩᾱᾱ ᾱĩðĩñēēŬ ὀŷĩᾱĩēᾱ. ¼ᾱᾱ ᾱᾱᾱᾱ

ᾱᾱᾱᾱβᾱᾱᾱᾱᾱ ὀᾱ ᾱᾱᾱ ὀĩ ᾱᾱβᾱᾱᾱ éᾱé ᾱᾱᾱ ὀᾱᾱ ᾱðũ ᾱᾱᾱᾱ ᾱᾱññβᾱᾱᾱ ç ḽĩŬᾱᾱ ἈἰŬᾱᾱᾱᾱᾱᾱ ὀĩᾱᾱ FreeBSD ὀᾱᾱ ᾱβĩᾱé Ḑēᾱᾱἰũ Ἰᾱ ᾱβĩᾱé ᾱĩðĩñēēŬ ὀŷĩᾱĩēᾱ, éᾱ ᾱᾱβᾱᾱ Ṗĩᾱ ᾱðũ ὀᾱ ὀŷĩᾱĩēᾱ: “™” ṑ “®”.

Ôĩ ᾱᾱβᾱᾱᾱ ᾱᾱᾱ Ṗ÷ ᾱᾱ ὀēĩḐũ Ἰᾱ ᾱἰçᾱᾱᾱ ὀᾱç ᾱñƆãĩñç ᾱñᾱᾱβùᾱᾱ ÷ ñçὀᾱṑἑ Linux® ἸŶᾱᾱᾱ / Ḑñĩ÷ ùñçἑŶἑᾱᾱ ᾱḐᾱḐŶᾱᾱᾱ Ἰᾱ ὀᾱᾱ ᾱᾱᾱᾱᾱᾱ Ṗἑἑᾱᾱ ὀĩᾱᾱ FreeBSD

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```
% 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 ÑõèìΒóάέò Áέάðèýíóåùí IP

Ìðññãßðå íá áíáέÝóåðå íέά äέáyèðíóϗ IP óå íέά äέåðåð ãέέðýíò ìå ôϗ ÷ñPóϗ ôϗðò áíôíèPð ifconfig(8). Áέά íá ãßíáέ ìüíèϗ üòðüòí áððP ϗ äέέåãP, éåé íá íϗí ÷Üíåðåé óå èÜèå áðåíåêèβίϗóϗ, éå ðñÝðåé íá ôϗí ðåñέèÜåðå óòí åñ÷åß /etc/rc.conf. Óòí äèüèüòèí ðåñÜåååíåé óåßíåðåé ϗ éåðå÷ñóϗ ðíò ðåñέèåíåÜíåé òí üññå òíò ððíèñåóðð (hostname), ôϗí äέáyèðíóϗ IP, éåèðð éåé ôϗí ðññåðéååñÝíϗ ðýèϗ (defaultrouter):

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

×ñϗóèíðíèPóðå ôϗí äèüèüòèϗ éåðå÷ñóϗ äέά íá éåèññßóåðå üðé íέά äέåðåð èå èåíåÜíåé ñõèìΒóάέò ìÝóü DHCP:

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

## 6 Firewall

Óòí Linux ÷ñϗóèíðíèñåßðåé òí **IPTABLES** òí ïðíñí ðåñÝ÷åé ððϗñåóßåð firewall óå åðßðåññ ððñPíå. Óí FreeBSD ðåñÝ÷åé åðßðçðò firewall ìÝóü òíò ððñPíå. Áέά ôϗí äèñßååé, òí FreeBSD ðåñÝ÷åé òñßåé 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))

Óí **IPFIREWALL** P **IPFW** (ϗ áíôíèP ÷åññέóíñý òñí éåíüñí òíò **IPFW** åßíåé ϗ ipfw(8)) åßíåé òí firewall ðíò Ý÷åé áíåðð÷èð÷èß éåé óòíðϗñåßðåé åðü ôϗí ñÜåå áíÜðððíϗð òíò FreeBSD. Óí **IPFW** ìðññåß íá óòíñåðåðåß ìå òí dummynet(4) äέå íá ðåñÝ÷åé äòíåðüðçððåð äέåññññòüðçð ôçð èβίϗóϗð ðåéÝòñí (traffic shaping) éåé íá åñññèPíåé äέåñññåðéèýðò ôýðíðð óòíåÝóåñí äέέðýíò.

ðåñÜåååñíåé áñüð éåññíåé òíò **IPFW** ðíò åðéðñÝðåé áέóåñ÷÷ññíåé ååñññÝíåé ðññò ôϗí ððϗñåóßåé **SSH**:

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



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

Ὀἷ δᾶἡὙᾶῖᾶ ὁçδ δἡἡῖῖῖῖ IP, ἐᾶ ÷ἡçὁῖἡἡἡἡἡἡ ὁçἱ ᾶῖῖῖῖῖ ᾶἰῖῖῖῖ ᾶῖ ἱᾶ ᾶῖἡἡἡἡἡἡ 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 ῖβόᾶ 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
...
```

**Ὀçἡᾶᾶᾶ:** ἘὙἡῖᾶδ ᾶὁὙ ὁῖδ ὁῖὙδ ὁἷ ᾶᾶᾶ÷ἱᾶ ç ᾶἰῖῖῖῖ sysctl ᾶβἱᾶέ ἱὙἡ ᾶῖ ᾶἱᾶἡὁç.

ὈδὙἡ÷ἡἡἡ δᾶἡῖὁᾶᾶᾶ Ὑἡἡ ᾶδᾶῖὁᾶᾶᾶ ὁἷ procfs, ὙὁὙ ᾶῖ δᾶἡὙᾶῖᾶ Ὑὁᾶἱ ᾶῖὁᾶῖᾶᾶ δᾶῖῖὁᾶἡἡ ῖἡῖῖῖῖ, ὁἷ ἡἡἡἡ Ὑἡἡᾶᾶ ÷ἡᾶᾶ ὁçδ ᾶἰῖῖῖῖ truss(1) ᾶῖ ὁçἱ ᾶἡᾶ÷ἱᾶὁç ὁἡἱ ῖῖᾶᾶἡἡ ὁδὸδῖαδῖδ, ἐᾶῖ ᾶῖ ὁçἱ Ὀἡἡᾶὁὁὁὁᾶ ἱᾶ Ἀῖὁᾶῖῖῖᾶ ὁἷ 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 ἐάε ç Ὀἡἡᾶὁὁὁὁᾶ ἱᾶ Ἀῖὁᾶῖῖῖᾶ ὁἷ Linux ÷ἡçὁῖἡἡἡἡ ὁἷ ᾶῖῖῖ ὁçδ procfs, ὁἷ linprocfs(5)). Αἱ ÷ἡᾶῖᾶᾶᾶ ἱᾶ δἡἡὁᾶἡᾶᾶ ὁἷ procfs, ἡἡἡᾶᾶ ἱᾶ δἡἡῖῖῖῖῖ ὁçἱ ᾶῖῖῖῖῖ ᾶᾶἡᾶὁᾶ ὁἷ ᾶἡ÷ᾶἡἡ /etc/fstab:

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

**Ὀçἡᾶᾶᾶ:** Ç ᾶῖῖῖῖῖ noauto ἐᾶ ᾶἡἡᾶᾶᾶ ὁçἱ ᾶὁὁἡἡᾶὁç δἡἡὙἡἡὁçδ ὁἷ /proc ῖᾶὁὙ ὁçἱ ᾶῖῖῖῖὁç ὁἷ ὁδὸδῖαδῖδ.

δἡἡὁᾶἡᾶᾶ ῖᾶὁὙἡἡ ὁçἱ procfs ÷ἡçὁῖἡἡἡἡᾶὁ ὁçἱ ᾶῖῖῖῖῖ ᾶἰῖῖῖῖ:

```
# mount /proc
```

## 9 Οἱ ἐνὶ τῇ Ἑλλάδι Αἰὶ τῇ

### 9.1 Ἀεὶ τὴν Ἑλλάδα Δαὶ τῇ

Αἰὶ τῇ Linux (Red Hat/Debian)	Αἰὶ τῇ τῇ τῇ FreeBSD	Οἱ τῇ
<code>yum install package / apt-get install package</code>	<code>pkg_add -r package</code>	Ἀεὶ τὴν Ἑλλάδα Δαὶ τῇ ἀδελφὸν τῇ τῇ ἀδελφὸν
<code>rpm -ivh package / dpkg -i package</code>	<code>pkg_add -v package</code>	Ἀεὶ τὴν Ἑλλάδα Δαὶ τῇ
<code>rpm -qa / dpkg -l</code>	<code>pkg_info</code>	Ἐν τῇ Ἑλλάδι ἀδελφὸν τῇ Δαὶ τῇ

### 9.2 Ἀεὶ τὴν Ἑλλάδα Οἱ τῇ

Αἰὶ τῇ Linux	Αἰὶ τῇ τῇ τῇ FreeBSD	Οἱ τῇ
<code>lspci</code>	<code>pciconf</code>	Ἐν τῇ Ἑλλάδι οἱ τῇ PCI
<code>lsmod</code>	<code>kldstat</code>	Ἐν τῇ Ἑλλάδι οἱ τῇ ἀδελφὸν
<code>modprobe</code>	<code>kldload / kldunload</code>	Οἱ τῇ / Ἀδελφὸν τῇ ἀδελφὸν
<code>strace</code>	<code>truss</code>	Αἰὶ τὴν Ἑλλάδα ἐν τῇ οἱ τῇ

## 10 Οἱ τῇ

Ἀεὶ τὴν Ἑλλάδα οἱ τῇ Ἑλλάδι ἡ ἀδελφὸν τῇ ἀδελφὸν τῇ Ἑλλάδι. Ἀεὶ  
ἀδελφὸν τῇ Ἑλλάδι ἐν τῇ ἀδελφὸν τῇ Ἑλλάδι, ἀδελφὸν τῇ Ἑλλάδι οἱ Ἀεὶ τὴν Ἑλλάδα οἱ 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)) οἱ τῇ ἀδελφὸν τῇ Ἑλλάδι  
ἐν τῇ Ἑλλάδι ἡ ἀδελφὸν τῇ Ἑλλάδι οἱ τῇ Ἑλλάδι.