

Remote Console

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FreeBSD

ÍZ+ Û Aç3 ^ ð ° = Õ G Ð console Ý ^ † FreeBSD G Ð H,, ÍZ x • ¼ Š y ® ĩ
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 X 7 ¥Ý › 9 T "

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1. **RRR**

t î b & 9 server hosting provider ñ í b jY î FreeBSD J î 8 9 € Æ; ð ° 3 X è ° Ý ^
 î b Linux® distribution Ý H,, Ý î
 b ° ° - • óC ‡ ? Ý Linux distribution ¼,, 9 Ě µ µ • Ž ½ H,, FreeBSD ,b ° ° Jî ° è °
 = † à Ý • Û 9 Ě ô • à ¼ H,, FreeBSD
 ÍZ+ Û 9 ° G Đ Ą Í H,, FreeBSD Ý] P |C RAID-1 ZFS ' M »

2++ÛÛ

+` xì ÍZ Ý ê Ý|C Û-9\ X^ Ý(— Ey P]Y î FreeBSD Ý, Ñ†™(colocation)àV ,
Ž ÍZ X+Û ÖÝ ¼f ° 8 b à

1. ÑA G` R X è ÖÝ &9(î ä Ý server hosting 2¥ ° è ° x ° =| à • Û •| D Ä LAN
] P ^ ô •| D Ä SSH] P • Ñ§ ; ð ° b Ö• Ä†™ | - € ÄÝ ^ V•| = ¼Ñ Äb
® Þ Ý® ¼• Û Í ; i Þ+Û Aø D Ä=| • Û ¼H,, FreeBSD
2. ix ; ° +Û Aø3 Í ^ ' |CÆ Ct » Ý FreeBSD ÖÈ t i ° 3 GÐ^ î D Ä ramdisk]
P @› -| **sysinstall** FTP mirror ì ¼H,, J Ý FreeBSD® ¼• Û
3. ÍZ Í ð l 5 Þ+Û H,, • |C ZFSj n • Û Ý'

2.1mmÖ

Ý W• WGÐH,, Ä 6 Š b

Š b •| î ç Ý® ¼• Û -v SSH•| = a

i Š FreeBSD Ý H,, •

! Aø , à sysinstall(8)

b FreeBSD H,, Ä n Tì ISO image j

3ãmm - mfsBSD

3,, FreeBSD G Š ÄCt ; Ý FreeBSD® ¼• Û image j | - •| { Ä î ^ Ah x ¼ ±
Ý • Û µ •| D Ä ç - ¼E® , y ì ¼Ý H,, l 5 Ç • Ä D Ä console

, **mfsBSD**9 ì µ î à ¼ÄC l Ý FreeBSD image j **mfsBSD**((C Í E mfsF µ î E memory file
systemF)X~ C Ö¼Ý J • Û ° D Ä ramdisk] P ¼° ® ã y h x ©' { Ä Ý l 5 µ â § .h •
|à ¼H,, J Ý FreeBSD® ¼• Û **mfsBSD** Ý ° › y <http://people.freebsd.org/~mm/mfsbsd/> Í = "
b Ö È Ý t ± release l 5

š ¥ Ö **mfsBSD**/ l ° ®] P Ý Þ; 3 ÍZ+ Û P š / u E 9] « b • ¶ Ý \ ï • ‹ **mfsBSD**
ç ã à 8 n Z

´ ì µ t ± Ý **mfsBSD**-Š D¹ Q; 6 Ö Š D¹ i Ý ® ê ô µ î **mfsBSD** script j X 3

```
# fetch http://people.freebsd.org/~mm/mfsbsd/mfsbsd-latest.tar.gz
# tar xvzf mfsbsd-1.0-beta1.tar.gz
# cd mfsbsd-1.0-beta1/
```

3.1' mfsBSD

3 Þ **mfsBSD** ^ G b ç Í ¥ Š ' Š ' h` t ¥ Š Ý' œ € • µ î ç - ' Ö 9 ç - §
, 't ? J āX yX Ý ç - • (|C Ö ç - ~ ° | ø x Ě , › • P µ á , & Ä Þ ° : Ö **mfsBSD**
Aø3 ø ç - µ ì •'

```

" x ¼Š - µ î '   root Û D 9 F • | D Ä conf/rootpw.conf ¼ W š 6 B œj Û D î | € Z
] PD w .h   ~ È w È Ñ ĭ ð b3 à Ý Û D Q, 9 Û D © î Û ` Û D,   • | 3 ĭ ^ ` †
? ð

```

3.1.1' ççç - (conf/interfaces.conf]PP)

```

u E Š „ Ý ^ ç ~ ç   á ¼ î ø x   - • |   Ÿ • ĭ à mfsBSD Ý Š › œ ? •   mfsBSD Ý
^ script ° q A ç ~ Ý MAC › è P š ¼ œ ? Ñ @ Ý , › • P   î ĭ   Ý conf/interfaces.conf'   /

```

```

initconf_interfaces="ext1"
initconf_mac_ext1="00:00:00:00:00:00"
initconf_ip_ext1="192.168.0.2"
initconf_netmask_ext1="255.255.255.0"

```

```

½ Ý 3 conf/rc.conf / Š • î defaultrouter Ý 8 n '

```

```

defaultrouter="192.168.0.1"

```

3.1.2' ççç - (conf/rc.conf]PP)

```

u B á ¼ ç ~ î ø x È £ , Š '   ç - Ý • à # ; conf/rc.conf ° f ´ ] -   œj '   + °
FreeBSD ý ã Ý rc.conf(5) î x ĭ Ý

```

```

Ü í »   u á ¼ œ ^   ç ~ î à re(4) £ , µ 3 conf/rc.conf † ĭ   v « '

```

```

defaultrouter="192.168.0.1"
ifconfig_re0="inet 192.168.0.2 netmask 255.255.255.0"

```

3.2 ÆC mfsBSD image

ÆC mfsBSD image j Ý Ä • 8 • Ž

```

´   î . FreeBSD H „   Ä T ĭ H „ , à Ý ISO image j ó Œ /cdrom   î ´ X b »   Ý x ĭ   Í Z f ' K   î
à FreeBSD 7.0-RELEASE ISO , . ISO image j , µ Œ /cdrom ê   8   • Ž   µ î à mdconfig(8)

```

```

# mdconfig -a -t vnode -u 10 -f 7.0-RELEASE-amd64-disc1.iso
# mount_cd9660 /dev/md10 /cdrom

```

```

# ½ µ   ÆC •   ^ Ý mfsBSD image

```

```

# make BASE=/cdrom/7.0-RELEASE

```

Note: î - Ý make ¼ f Š 3 mfsBSD Ý t î • ê ÆC • f] 1 ~/mfsbsd-1.0-beta1/

3.3 mfsBSD›››

```

3 mfsBSD image B n Š î F Ō G Ð ^ Ý = | • Ù T ĩ ĩ H „ Ý Linux distribution Š W9
@ t Ê ) Ý ĩ μ Ĩ scp

# scp disk.img root@192.168.0.2:.

Ý 5 ĩ @› mfsBSD image Š . j n w 3 k H „ ^ Ý ĩ × 9 (• ^ ) { Ä ĩ f ' » Ý ĩ × 9
^ { Ä , r sda £ , ® ° μ v « ĩ « 9 ø

# dd if=/root/disk.img of=/dev/sda bs=1m

u × 6 5 ĩ Œ image j 3 T Œ ° 3 ĩ × 9 { Ä Ý MBR Ä ĩ • | • ¥ ^ Ý • | à ping(8)
ĭ¼ ĩ ? Œ ^ ^ ± ĩ × Ē ping Ō ĩ μ • | D Ä ssh(1) = œ ĩ và root | C â ' Ý Ũ
D r á

```

4 FreeBSD®¼• Ù Ý Ĩ H „

```

3 mfsBSD 5 ĩ @› ĩ v T Œ • | D Ä ssh(1) ] P ¼ = ĩ ; ĩ + Ũ A œ ĩ ĩ slice 5 v '
gmirror | ® RAID-1 A œ | sysinstall ¼ H „ FreeBSD®¼• Ù Ý t ; H „

```

4.1 ĩ ĩ { Ä

```

Š ® Ý Ĩ g H { Ä è › FreeBSD Ĩ ĩ ĩ slice « 5 v œ € • 2 ê G 3 ĩ Ý ® ¼ • Ù Ĩ μ á Ō
• Ũ B 7 › / Ä • . h Š E { Ä g H ĩ P œ ® ĩ 9 ° ® • | à sysinstall T ĩ | fdisk(8) □
g bsdlable(8) ¼ W

' . & { Ä K z è š E & { Ä ® ĩ ¼ f

# dd if=/dev/zero of=/dev/ad0 count=2

# ½ | Ý à Ý ĩ¼ ĩ ĩ slice | C ' label ; ð ° ~ È | Ý sysinstall ĩ¼ ® ° f ' D ê T ĩ Ĩ
ú , ê H ° Œ • Ý Z C + « UNIX® ý ã ĩ ( Ĩ fdisk(8), bsdlable(8)) 9 ĩ 5 } ĩ ô ° × ĩ + Ũ G ĩ
ĩ 5 3 FreeBSD Handbook Ý H „ FreeBSD
(http://www.FreeBSD.org/doc/zh_TW.Big5/books/handbook/install-steps.html) a ; b 8 • ¼ Ý + Ũ X | 9
\ x Š Š + Ũ Ý Ĩ A œ ĩ ĩ RAID-1 • Ù | C ZFS 9 \ ° + Ũ ĩ ĩ ĩ ĩ mirror(8) † W Ý ĩ mirrored j n •
Ù / (q ê ), /usr | C /var , { Ä Ý Ĩ ō y ō è J ;; | zpool(8) † W ZFS Ý mirrored j n • Ù
š ¥ Œ Ä 6 Š . FreeBSD®¼• Ù „ ? ĩ ^ ĩ • ' ZFS j n • Ù

ĩ « Ý » ° + Ũ A œ ĩ ĩ slice | C label 3 N ĩ 5 v ĩ @ à ĩ mirror(8) A œ 3 N ĩ mirrored 5 v ĩ
ĩ ĩ UFS2 j n • Ù

# fdisk -BI /dev/ad0 ❶
# fdisk -BI /dev/ad1
# bsdlable -wB /dev/ad0s1 ❷
# bsdlable -wB /dev/ad1s1
# bsdlable -e /dev/ad0s1 ❸
# bsdlable /dev/ad0s1 > /tmp/bsdlable.txt && bsdlable -R /dev/ad1s1 /tmp/bsdlable.txt ❹
# ĩ mirror label root /dev/ad[01]s1a ❺
# ĩ mirror label var /dev/ad[01]s1d

```

```
# gmirror label usr /dev/ad[01]s1e
# gmirror label -F swap /dev/ad[01]s1b ⑥
# newfs /dev/mirror/root ⑦
# newfs /dev/mirror/var
# newfs /dev/mirror/usr
```

- ① E Œ{ Ä ~ ñ slice ~ v 3 Ĩ ë • Þ ^ ® š E Œ^ X b { Ä K®h x › ®
- ② E & { Ä ¶ á label |C bootstrap D
- ③ " 3 W› Ñ; Œ{ Ä Ý label ‹ y Aç ~ ñ5 v (partitions) š ç å bsdlable(8) 1 € 5 v 5 ½~
ñ a Ĩ › / (q ê) b › swap d › /var e › /usr t ĩ ° 3 } ĩ M» . f › ZFS, à
- ④ . ââ Ý label' V Œ V á Ō Ĩ Þ 9 { Ä ĩ Ah x ¼ Ě \ Ý { Ä label' µ ° ! ø
- ⑤ 3& 5 v ĩ @à gmirror(8)
- ⑥ š ¥ Œ -F ó 4 Ĩ à 3 swap ĩ 9 ç ó ° - gmirror(8) - Œ{ › Ĩ y • ê Ĩ V Ç, s ß é Ù Æ
ĩ T • Ù * ô ° œ! M
- ⑦ 3& Ĩ b † mirror Ý 5 v ĩ ~ ñ UFS2 ĩ n • Ù

4.2 • 𐀀𐀁𐀂,,

9 ... Ĩ t ¥ Š Ý x • Ĩ ; + Ũ @ ĩ ĩ Aç3 G x ; X † ? Ý { Ä H,, t ; Ý FreeBSD Ý Wh x
ê ý X b ĩ n • Ù K Ä 6 , µ - sysinstall • | . FreeBSD,, Ō { Ä /

```
# mount /dev/mirror/root /mnt
# mkdir /mnt/var /mnt/usr
# mount /dev/mirror/var /mnt/var
# mount /dev/mirror/usr /mnt/usr
```

† ĩ - › ® ĩ š Æ• sysinstall(8) š x ó Ž óC Custom H,, ó Options ¶ Enter Q ĩ || '
" É › Ō Install Root ¶ Space" Q ĩ ; /mnt ¶ Enter" | Þ Ñ; Ä D R ¼ Q ĩ ¶ q" Ç •
Ò 9 Ĩ Options ĩ «

Warning: š ¥ Œ Ĩ M» Á ¥ Š u E ~ Ý • £ , sysinstall µ ^ ð ° H,, FreeBSD

½ ó Distributions Q ĩ É › * ý Ō Minimal ¶ Space" ÍZ X | + Ũ t ; H,, Ĩ Ý Š; 6
ç - ø . • Ù H,, Ĩ D Ä ftp] P ¼ • Š Ō Ĩ ĩ « š ó Exit Ç •

Note: ‹ y Partition C Label M» J • - Ä . 9 ° ê G B K' ± Ý

3 Media ó Ž š ó FTP š ó t Ý mirror ĩ ~ v ~ sysinstall f ' ç - B' # ĩ ¼ µ ° /
Ō Custom ó Ž
t ĩ ¶ ĩ Commit Ç • • H,, WH,, ĩ Ç • Ò sysinstall

4.3 j HHH,, HHH»»

```
h` FreeBSD®¼• Ù Tœ B,, Q, b° i ø• Š† Ä6 Š†x° i ' ~ FreeBSD
•| ^ « r á
```

```
~ 3 Ä6 Š à chroot(8) |6 Ōââ ±,, ? Ý• Ù/ ¼f A ì
```

```
# chroot /mnt
```

```
Qj Äi ¼f| µ W
```

```
. GENERIC kernel • %Ö /boot/kernel ê
```

```
# cp -Rp /boot/GENERIC/* /boot/kernel
```

```
~ ñ /etc/rc.conf, /etc/resolv.conf C /etc/fstab j n ½ Ý Š Bÿ 3 /etc/rc.conf j ' 8
n ç - ' |C . sshd @à h² /etc/fstab jT œ° ì « 9 ø
```

# Device	Mountpoint	FStype	Options	Dump	Pass#
/dev/mirror/swap	none	swap	sw	0	0
/dev/mirror/root	/	ufs	rw	1	1
/dev/mirror/usr	/usr	ufs	rw	2	2
/dev/mirror/var	/var	ufs	rw	2	2
/dev/cd0	/cdrom	cd9660	ro,noauto	0	0

```
± ! /boot/loader.conf j ~ v/ p áì
```

```
geom_mirror_load="YES"
```

```
zfs_load="YES"
```

```
Ä• ì ¼f | 3 ì g ^ ` @à ZFS
```

```
# echo 'zfs_enable="YES"' >> /etc/rc.conf
```

```
, à adduser(8) ì¼ ± ! Í € , à ï ò r ½ Ý « K Š b x Í ò r ÿ • á wheel N à 3 ¥
^ j | œò r 6 ð root
```

```
g l ã î -8 n Ý' î Íb ö ' T Äý
```

```
~ 3 œ• Ùâ y • | ¥ ^ Ý š à reboot(8) ¼f| ¥ ^
```

5 ZFS

```
• Ù¥ ^ ± i Tœµ •| r áÝ K , à ± Ý FreeBSD H,, ] P D Ä G Ð, Ä #
î remote console
```

```
# ì ¼©y Š Ÿ J zpool(8) |C ~ ñ zfs(8) j n • Ù, ZFS Ý ~ ñC Ñ § Î 8 y • | U ' ~
ñ mirrored pool
```

```
# zpool create tank mirror /dev/ad[01]s1f
```

```
# ½ ~ ñ j n • Ù
```

```
# zfs create tank/ports
```

```
# zfs create tank/src
```

```
# zfs set compression=gzip tank/ports
```

GÐH,, FreeBSD®¼• Ù, Ä # Remote Console

```
# zfs set compression=on tank/src
# zfs set mountpoint=/usr/ports tank/ports
# zfs set mountpoint=/usr/src tank/src
```

× 6 μ Î 9 ø • Ž u E FreeBSD Î Ý ZFS Ð ; l 5 b · ¶ š ¢ å FreeBSD Wiki Î Ý ZFS
(<http://wiki.freebsd.org/ZFS>) × ; 1 €
