



# Introduzione a OpenBSD

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[www.openbsd.org](http://www.openbsd.org)

OpenBSD è uno UNIX OpenSource, basato sulla piattaforma BSD 4.4.

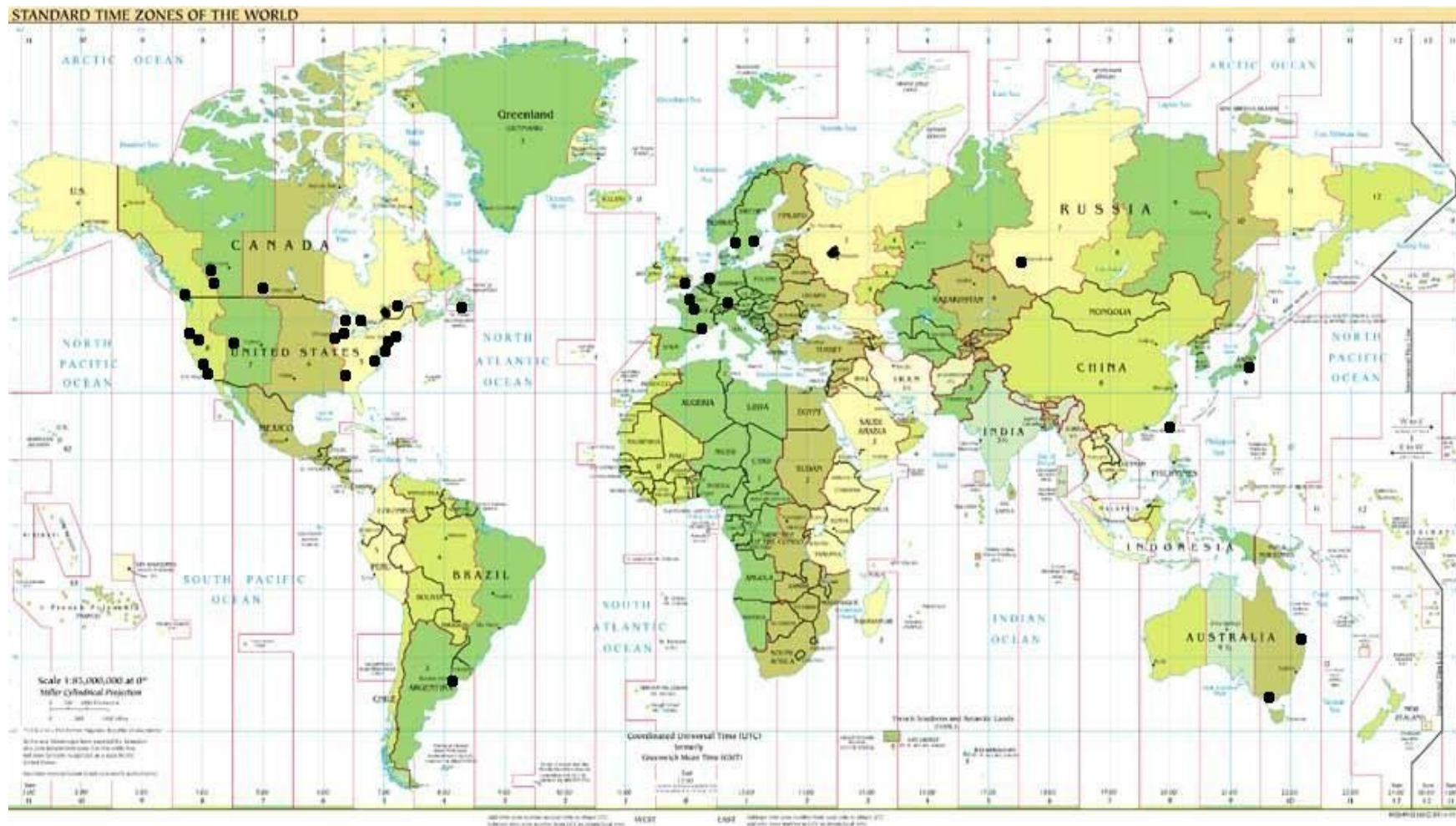
Le caratteristiche principali di questo sistema sono:

- stabilità
- sicurezza proattiva
- critografia integrata
- portabilità
- compatibilità con binari SVR4 (Solaris), FreeBSD, Linux, BSD/OS, SunOS e HP-UX



Openbsd è sviluppato da un gruppo di volontari attualmente coordinati da Theo de Raadt il quale vive in Canada.

In questa mappa si può vedere dove vivono i principali sviluppatori:





## Secure by Default

OpenBSD vuole diventare il miglior sistema operativo nel campo della sicurezza.

Attualmente Sun, SGI, IBM, HP, e molti altri non raggiungono le qualità di sicurezza che potete trovare con OpenBSD.

Uno dei motti di OpenBSD è: “Secure by Default” infatti non è necessario essere un esperto di sicurezza per installare openbsd ed ottenere una piattaforma stabile e soprattutto sicura. Durante l'installazione vengono attivati solo i servizi fondamentali, in questo modo le possibilità di attacco diminuiscono drasticamente



## Perché OpenBSD?

- \* OpenBSD è supportato da molte differenti piattaforme hardware.
- \* OpenBSD è pensato dai maggiori professionisti nella sicurezza per essere il più sicuro sistema operativo UNIX-like come il risultato di un codice sorgente continuamente controllato sulla sicurezza.
- \* OpenBSD è un completo sistema operativo UNIX-like disponibile in formato sorgente.
- \* OpenBSD integra una tecnologia di sicurezza che lo rende adatto a costruire firewall e servizi di rete privati in un ambiente distribuito.
- \* OpenBSD beneficia di forti e continui sviluppi in molte aree, offrendo opportunità di lavoro con tecnologie emergenti con una community internazionale di programmatori e utenti-finali.



## Dove possiamo installare OpenBSD?

- alpha Digital Alpha-based systems
- amd64 AMD64-based systems
- cats StrongARM 110 Evaluation Board
- hp300 Hewlett-Packard HP 9000 series 300 and 400 workstations
- hppa Hewlett-Packard Precision Architecture (PA-RISC) systems
- i386 Standard PC and clones based on the Intel i386 architecture and compatible processors
- luna88k Omron LUNA-88K and LUNA-88K2 workstations
- mac68k Motorola 680x0-based Apple Macintosh with MMU
- macppc Apple New World PowerPC-based machines, from the iMac onwards
- mvme68k Motorola 680x0-based VME systems
- mvme88k Motorola 881x0-based VME systems
- sgi SGI MIPS-based workstations
- sparc Sun sun4, sun4c and sun4m class SPARC systems
- sparc64 Sun UltraSPARC systems
- vax Digital VAX-based systems
- zaurus Sharp Zaurus C3x00 PDAs



## Si parte!!! Come ottenere OpenBSD?

- Acquistare i cd ( <http://www.kd85.com/> )
- Creare un disco di boot e installare OpenBSD via rete (http-ftp)

OpenBSD a differenza di molte distribuzioni linux non rilascia delle iso ufficiali complete di programmi e sorgenti, ma si deve creare un cd/floppy di boot per poi fare una installazione via rete.



## Prepariamo il supporto - (1)

Per prima cosa il download di:

`ftp://ftp.openbsd.org/pub/OpenBSD/3.9/i386/floppyA39.fs`  
(Immagine floppy per desktop)

`ftp://ftp.openbsd.org/pub/OpenBSD/3.9/i386/floppyB39.fs`  
(Immagine floppy per server)

`ftp://ftp.openbsd.org/pub/OpenBSD/3.9/i386/floppyC39.fs`  
(Immagine floppy per portatili)

`ftp://ftp.openbsd.org/pub/OpenBSD/3.9/i386/cd39.iso`  
(Immagine cd completa)



## Prepariamo il supporto - (2)

Per l'iso del CD possiamo masterizzare con qualsiasi programma l'immagine.

Per i floppy:

- `fdformat /dev/fd0` (formattiamo il floppy)
- `dd if=floppy39.fs of=/dev/fd0 bs32` (copia dell'immagine sul floppy)
- `cmp /dev/fd0 floppy39.fs` (verifica immagine / floppy)

E possibile creare il floppy anche da windows usando programmi come: eawrite oppure fdimage oppure ntrw.



## Installazione

Cominciamo ora l'installazione di Openbsd, in rapida successione vediamo le domande che ci pone il sistema:

```
rootdev=0x1100 rrootdev=0x2f00 rawdev=0x2f02  
erase ^?, werase ^W, kill ^U, intr ^C, status ^T  
(I)nstall, (U)pgrade or (S)hell? i
```



## Installazione

Welcome to the OpenBSD/i386 3.9 install program.

This program will help you install OpenBSD in a simple and rational way. At any prompt except password prompts you can run a shell command by typing '!foo', or escape to a shell by typing '!'. Default answers are shown in []'s and are selected by pressing RETURN. At any time you can exit this program by pressing Control-C and then RETURN, but quitting during an install can leave your system in an inconsistent state.

Specify terminal type: [vt220] Enter  
kbd(8) mapping? ('?' for list) [none] it



## Installazione

**IS YOUR DATA BACKED UP? As with anything that modifies disk contents, this program can cause SIGNIFICANT data loss.**

**It is often helpful to have the installation notes handy. For complex disk configurations, relevant disk hardware manuals and a calculator are useful.**

**Proceed with install? [no] y**



## Installazione

**Cool! Let's get to it...**

**You will now initialize the disk(s) that OpenBSD will use. To enable all available security features you should configure the disk(s) to allow the creation of separate filesystems for /, /tmp, /var, /usr, and /home.**

**Available disks are: wd0.**

**Which one is the root disk? (or done) [wd0] Enter**

**Do you want to use \*all\* of wd0 for OpenBSD? [no] Enter**



## Installazione

> p

#	size	offset	fstype	[fsize	bsize	cpg]
a:	17593.2M	1498.7M	unused	0	0	
c:	19092.9M	0.0M	unused	0	0	

> d a



## Installazione

> a a

offset: [3069360] Enter

size: [36030960] 150m

**Rounding to nearest cylinder: 307440**

FS type: [4.2BSD] Enter

mount point: [none] /

> a b

offset: [3376800] Enter

size: [35723520] 300m

**Rounding to nearest cylinder: 614880**

FS type: [swap] Enter

> a d

offset: [3991680] Enter

size: [35108640] 120m

**Rounding to nearest cylinder: 245952**

FS type: [4.2BSD] Enter

mount point: [none] /tmp



## Installazione

> a e

offset: [4237632] Enter

size: [34862688] 80m

Rounding to nearest cylinder: 164304

FS type: [4.2BSD] Enter

mount point: [none] /var

> a g

offset: [4401936] Enter

size: [34698384] 3g

Rounding to nearest cylinder: 6291936

FS type: [4.2BSD] Enter

mount point: [none] /usr

> a h

offset: [10693872] Enter

size: [28406448] 4g

Rounding to nearest cylinder: 8388576

FS type: [4.2BSD] Enter

mount point: [none] /home



## Installazione

```
> p
#      size      offset fstype [fsize bsize cpg]
a:    150.1M     1498.7M 4.2BSD  2048 16384  16 # /
b:    300.2M     1648.8M swap
c:   19092.9M       0.0M unused    0    0
d:    120.1M     1949.1M 4.2BSD  2048 16384  16 # /tmp
e:     80.2M     2069.2M 4.2BSD  2048 16384  16 # /var
g:   2048.0M     2149.4M 4.2BSD  2048 16384  16 # /usr
h:   4096.0M     4197.4M 4.2BSD  2048 16384  16 # /home
> q
Write new label?: [y] Enter
```



## Installazione

```
Mount point for wd0d (size=122976k)? (or 'none' or 'done') [/tmp] Enter  
Mount point for wd0e (size=82152k)? (or 'none' or 'done') [/var] Enter  
Mount point for wd0g (size=3145968k)? (or 'none' or 'done') [/usr] Enter  
Mount point for wd0h (size=4194288k)? (or 'none' or 'done') [/home] Enter  
Mount point for wd0d (size=122976k)? (or 'none' or 'done') [/tmp] done  
No more disks to initialize.
```

### OpenBSD filesystems:

```
wd0a /  
wd0d /tmp  
wd0e /var  
wd0g /usr  
wd0h /home
```



## Installazione

The next step **\*DESTROYS\*** all existing data on these partitions!

Are you really sure that you're ready to proceed? [no] y

/dev/rwd0a: 307440 sectors in 305 cylinders of 16 tracks, 63 sectors  
150.1MB in 1 cyl groups (306 c/g, 150.61MB/g, 19328 i/g)

/dev/rwd0d: 245952 sectors in 244 cylinders of 16 tracks, 63 sectors  
120.1MB in 1 cyl groups (244 c/g, 120.09MB/g, 15360 i/g)

/dev/rwd0e: 164304 sectors in 163 cylinders of 16 tracks, 63 sectors  
80.2MB in 1 cyl groups (164 c/g, 80.72MB/g, 10368 i/g)

/dev/rwd0g: 6291936 sectors in 6242 cylinders of 16 tracks, 63 sectors  
3072.2MB in 20 cyl groups (328 c/g, 161.44MB/g, 20608 i/g)

.....

.....



## Installazione

**Enter system hostname (short form, e.g. 'foo'): glugcn**

**Configure the network? [yes] Enter**

**Available interfaces are: fxp0.**

**Which one do you wish to initialize? (or 'done') [fxp0] Enter**

**Symbolic (host) name for fxp0? [puffy] Enter**

**The default media for fxp0 is**

**media: Ethernet autoselect (100baseTX full-duplex)**

**Do you want to change the default media? [no] Enter**

**IP address for fxp0? (or 'dhcp') 199.185.137.55**

**Netmask? [255.255.255.0] Enter**

**IPv6 address for fxp0? (or 'rtsol' or 'none') [none]**

**No more interfaces to initialize.**



## Installazione

```
DNS domain name? (e.g. 'bar.com') [my.domain] cuneo.linux.it
DNS nameserver? (IP address or 'none') [none] 199.185.137.1
Use the nameserver now? [yes] Enter
Default route? (IP address, 'dhcp' or 'none') 199.185.137.128
add net default: gateway 199.185.137.128
Edit hosts with ed? [no] Enter
Do you want to do any manual network configuration? [no] Enter

Password for root account? (will not echo) 6$5eEj%G4y
Password for root account? (again) 6$5eEj%G4y
```



## Installazione

You will now specify the location and names of the install sets you want to

load. You will be able to repeat this step until all of your sets have been successfully loaded. If you are not sure what sets to install, refer to the installation notes for details on the contents of each.

Sets can be located on a (m)ounted filesystem; a (c)drom, (d)isk or (t)ape device; or a (f)tp, (n)fs or (h)ttp server.

Where are the install sets? f

HTTP/FTP proxy URL? (e.g. 'http://proxy:8080', or 'none') [none]

<enter>

Display the list of known ftp servers? [yes] y



## Installazione

```
Server? (IP address, hostname, list# or 'done') [q] 61
Using ftp5.usa.openbsd.org/pub/OpenBSD Redwood City, CA, USA
Server? (IP address, hostname , list#, 'done' or '?') [ftp5.usa.openbsd.org]
<enter>
Does the server support passive mode ftp? [yes] <enter>
Server directory? [pub/OpenBSD/3.9/i386] <enter>
Login? [anonymous] <enter>
```

The following sets are available. Enter a filename, 'all' to select all the sets, or 'done'. You may de-select a set by prepending a '-' to its name.



## Installazione

- [X] bsd
- [X] bsd.rd
- [ ] bsd.mp
- [X] base39.tgz
- [X] etc39.tgz
- [X] misc39.tgz
- [X] comp39.tgz
- [X] man39.tgz
- [X] game39.tgz
- [ ] xbase39.tgz
- [ ] xetc39.tgz
- [ ] xshare39.tgz
- [ ] xfont39.tgz
- [ ] xserv39.tgz

File Name? (or 'done') [bsd.mp] all



## Installazione

Ready to install sets? [yes] <enter>

Getting bsd ...

100% |\*\*\*\*\*|

5157 KB 00:26

Getting base39.tgz ...

100% |\*\*\*\*\*|

35928 KB 02:39

Getting etc39.tgz ...

100% |\*\*\*\*\*|

1123 KB 00:08

.....



## Installazione

Sets can be located on a (m)ounted filesystem; a (c)drom, (d)isk or (t)ape device; or a (f)tp, (n)fs or (h)ttp server.

Where are the install sets? (or 'done') [done] <enter>

Start sshd(8) by default? [yes] <enter>

Start ntpd(8) by default? [no] <enter>

Do you expect to run the X Window System? [no] <enter>

Change the default console to com0? [no] <enter>

Saving configuration files.....done.

Generating initial host.random file .....done.

What timezone are you in? ('?' for list) [Canada/Mountain] ?

Europe/Rome

Setting local timezone to 'Europe/Rome' ...done.

Making all device nodes...done.



## Installazione

CONGRATULATIONS! Your OpenBSD install has been successfully completed!

To boot the new system, enter halt at the command prompt. Once the system has halted, reset the machine and boot from the disk.

```
# halt
```





## Riferimenti - Approfondimenti

<http://www.openbsd.org>

<http://www.openbeer.it/>

<http://www.google.it/bsd>

<http://cuneo.linux.it> (Mailing list)