

Linux Base

**SSH base**

**Configurazione sistema da terminale**



# SSH



# Generare una chiave

- Comando: `ssh-keygen`
- Algoritmo
  - DSA o RSA?
- Dimensione della chiave
  - `ssh-keygen -b bits`
  - : ~~128~~, ~~256~~, ~~512~~, ~~768~~, 1024, 2048, 4096, ... ?

# Generare una chiave

```
giovanni@moth:~$ ssh-keygen -b 4096
Generating public/private rsa key pair.
Enter file in which to save the key (/home/giovanni/.ssh/id_rsa):
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/giovanni/.ssh/id_rsa.
Your public key has been saved in /home/giovanni/.ssh/id_rsa.pub.
The key fingerprint is:
b4:b7:01:05:9d:a6:ab:ac:ed:85:5f:4e:23:c1:d8:72 giovanni@moth
The key's randomart image is:
+--[ RSA 4096 ]-----+
|      .o..          |
|      .+           |
|      oo           |
|      =.o          |
|      o E.o         |
|      +.o o         |
|      ...o =        |
|      .oo = .       |
|      .oo . .       |
+-----+

```

# Chiave pubblica

- Appendere la chiave pubblica nel file  
    `~/.ssh/authorized_keys`  
della macchina a cui si desidera accedere
- Trasmettere la chiave pubblica
  - spedirla per email
  - verificare la *fingerprint* per telefono

```
The key fingerprint is:  
b4:b7:01:05:9d:a6:ab:ac:ed:85:5f:4e:23:c1:d8:72 giovanni@moth
```

# Esempio di authorized\_keys

```
ssh-dss AAAAB3NzaC1kc3MAAAIBAIwo4mH0EM80PrGAW6n3AuH/IzaHmIXzSPUDXLEjyv6e1xoc8Yvor7Y35Q64jg
NSQo0g0ZCDKXUD+ker81iry3DSj0GwxM1Cbcd34rIFkwnjdwub3SVPcufYttempSbbEB2zsXK7CDJU1R13Mu6StQX
LFE22rOkEwGiXQyN+RSHOUUlBqLfja3lHEspyU3OXOHMUna0RF+VpT6R1+r+3mcoEGk0KGfbKU5Xokwu2uqyCUTzX0
63zdrw1ywnb1TIjseMLz5518b2ae43Tgy3A7qz852ns1XmJAYP7upu0ja6NvV3tBlheYhkqDkEFAomfmbmqJ5pf4JH
FIQ3hgKmxA+4HNS+gdki2A8Dikic9Qm+4BUIYgn5NMIowLx/ZUZxpPRt9d2exEqPHRVm01ga4qGXmZOVEan6LeV5JK
9GAigwfiGqGUFrxNkkwBVVobjp7T/33mTpwzKcrJhtThIbfuiwn0/ksxLZioV7tVpXj3AZfhbyvrDi7IWA0JGEj3tHz
fgiwr4Mlk0651E5fiu8on8ucgr4Q6RHwNxyQqHa9ZMwo9dnt6NTwohklBsklwqbACI7YtkMYrImu66qjcvDDp2oA
/K2OMfmj7OpL2IXMUFMY+IQtrZFEus+PzwmX6/bTgi+aCbqmVosZkLjqodiIXGWfZZubtkwpryVBgy8fF3AAAAFQDu
NjUCP7tZ0nEV8xyVw89Zqq2atQAAAGao7kggC5+8r+x6K1xpWBGtxhBSRp7L12kQ/xyTqpr6d9CtHrX/Oz5bEtE8A2Q
/nHsjKxATyG9Fkv9fom2EC3HywJKOD0cypKSGvddE9QtqLLDUCbxzr8zBiD84e4NG1Bq0ao04uDOGskcg2PI8pk1Es
HeG+7O3YKEJuk8jScPfrML25+yzV3BQqXn3F++c+dbpck03aijckBoaGCceutNJBTTA+s9YokNHLHPAN7z2hRTTm4U
uz3Faa7T6X/AKNqLCPzNOlnjdTAF9F7lh8xbm9bcw1C1v9Rj5WuCTwKF+Z9MMC0Gu85JPGBlrIchr1werMg6EvJ9DB
t3XP6qGn/HI/Pbt4tg/O7wy+sZZrZLNSPDRrbp/6IMhpOivGyphd+xyHsIXw607XuGVJxbDRcr7/7KvowU1aA00d
Xaoack/n4HGR3fZUG9TGak7RBR1amh1D7jJ7w+coys1BLOCBjQdHI0BRGyp3IRUVqrFJbynzjMFDXOFwqEYNY6W8EQ
2w59hEQOYiRALKSgpdceotCB5WQwXTKjiPTCBI8s6cyUU7BznQipz3fhEuwdhdzB6XdrN/ZxrhzGfWfJGsmn6Mm9X
hZce7yguatIFWFFVLE5SQwre9uyi8CZkjtKwTtid3xPMjRafBc6H1kuf3husPNheo2DVfntPOFvjJekMxgAAAGAV
eJCy7kQyno7pdFU70uko7lqphCGIrrPd0BsZ8Q1sCzbAo9nFiaUxsZySDXkm8lwZPGcy6Yj0pyk2EXAbCMug61SFLr
yWHJfsi3WP/EhJ16p8PAGXlvv0VCZITIEsvWwSbw8VIM9CqYcw5ijazadBMA/5vYqfVd7Jno8KIjsEfoynw0IPJ0pP
6WFxMsmfpyA0BoXS15VpLSYAcQyIfZ1xHFky6Nsnd29EVbHcBkbn9yT1t56mxqyo6BRZviysachfhp2/hngWw8HiFy
QAoAG5nlDyn+VGOTzCJfg5MH0Twa8Jis/gLiAc6pepcu/g/8XV+IZQzt/5jcs1bdsD0iEokino7/R8WTCwFVJjbnb
f4rT0wdVlxdKLIYJr86Y0zzfkc/41FhPrZUSlnlyKIu+KvXzG+vDd7pmwaxag5s02KtVdzn+deqduNp0aHmJu1H0pG
ptz3CLNpTJQVGEQCQOVxPmLxotzh7zgfWQnxDLqwwMPPSndGegBVuca43hsORHKiuzL/ynNxxwAeenXTYcy3Ah1Hxx
jRqmbShglhmJtQqWIPY7hqAn3kvxka4LRgyf0rDo3l9GqDBYjHSPI+Yljobwi1G6TgJhoJwkuj5SGkdD+JeiYSRH4
YB5uH8D4SrF9B3/ss32tgJ6HfyDfdbPZKsvJfD9nRHhYTH2n+dtA== giovanni.squillero@polito.it
ssh-dss AAAAB3NzaC1kc3MAAACBANVOG4HIGfvfZThQUm0bJS8PVDbbhlV8GqnuFD0Ir9m8TkyxzokjIu90j6IAW
m8xPINXPx1CFm+r4+zjutJH6ACan7DFGjTnJGQqvao1E6d1sRLox9sCDTxrnlCT5S20hck3p497ZsukkfX4NMqujq5
Rru+z9J6ZiMPRIU1dxqrAAAAFQD1UVMeq0e+GP0jPyy/8qku1UwWaaQAAAIeaiwn2fEw6mPx0/Jp8GexJsDnD1MEkIK
ANF+pdufFAesZpg8MHf61Nox38FFIF36tsI2YRZUBUINIZva4yZwkilBYIdxo1YhuowOH/ICbMZBFi6VCPbF8iQtYp
BZa3m3AKjBQUUQec1YL12laCEZTJlagpyVs+siYw8yL+mgbmzhkAAACAjfgG2QqryPhdIpKT7M1EIlweGBOMosmc9p
sgU9qwtRrE2kDm0ginge8LzJqdaI7P8zRbv6JOhXlazmc4w3KfKuByhgoApkc+e3acXEzNEq8FGX6MF1VQ81SP1ZH8
oMneElBokCKqizZjT4viCI6Lzzdv6bhiC0ZKsRqpxPgLozu=
ssh-dss AAAAB3NzaC1kc3MAAAEBAPOqhHhaz5KD7g23Igd9GQD06DKFAR0Thdv4FgeZuiJwM0S1/fbn01ycPndpeb
xrDa4AP0JMy/qEDtd5iJgz7CMGrqYqyptTRwTUEvYDuAu3oaPfdTJR8QpKCUA9HwOrSY13lXCAz87kwegw9QYJOisQ
c8EktcybcQ3qbMhNngonxOBTGrnkD/etqxzoZ4s+kmd+wOCL+U86NV7McbmKcsYUZ7zbwzmeYSA5FIIdN3X8ivqTVbr
ssh/authorized_keys lines 2-4/5 72%
```

# Utilizzo

```
ssh [-v] utente@host
```

- si collega al computer remoto come *utente*
- utilizzare `-v` (o `-vv`) per cercare di diagnosticare i problemi

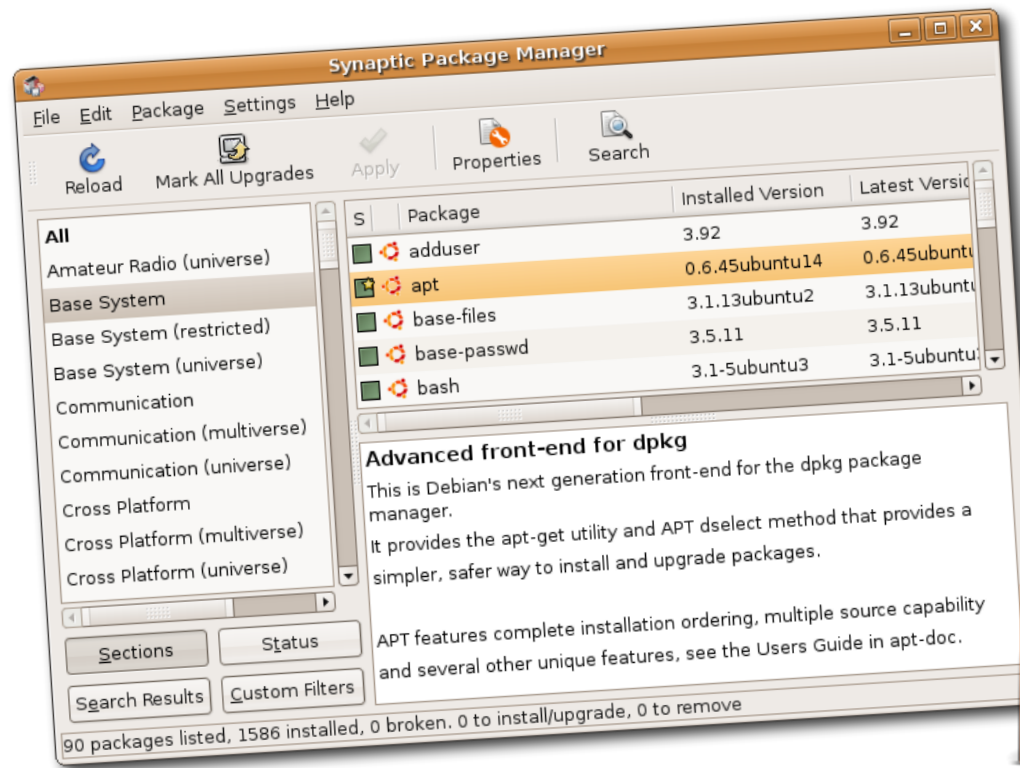
# Sistema dei pacchetti

- **dpkg**
  - installa, rimuove, configura pacchetti .deb
- **apt** (*Advanced Packaging Tool*)
  - in origine: front-end per dpkg
  - apt-get, apt-config, ...
- **aptitude**
  - in origine: frontend per apt



# Sistema dei pacchetti

- Synaptic
- Ubuntu Software Center



# Sistema dei pacchetti

- Packages vs. Meta-packages

# Repository

- Modificare il file «**/etc/apt/sources.list** »
  - `man apt-get`
  - `man sources.list`
- Slang: «repo»

# Suggerimenti

- Installare aptitude
  - \$ `sudo apt-get install aptitude`
  - interfaccia quasi *user friendly* a carattere
  - può sostituire apt-get

# Aggiornare il sistema

- Aggiornare la cache dei pacchetti  
`$ sudo aptitude update`
- Installare gli aggiornamenti  
`$ sudo aptitude full-upgrade`

# Suggerimenti

- Installare python-software-properties

```
$ sudo aptitude install \
python-software-properties
```

```
giovanni@moth:~$ sudo aptitude install python-software-properties
[sudo] password for giovanni:
The following NEW packages will be installed:
 python-pycurl{a} python-software-properties unattended-upgrades{a}
0 packages upgraded, 3 newly installed, 0 to remove and 0 not upgraded.
Need to get 96.6 kB of archives. After unpacking 651 kB will be used.
Do you want to continue? [Y/n/?]
```

# add-apt-repository

- Aggiungere un repository
  - `add-apt-repository 'deb uri distribution \ [component1] [component2] [...]'`
  - `add-apt-repository ppa:<ppa_name>`
- Esempi:
  - `add-apt-repository 'deb http://packages.linuxmint.com/ julia main'`
  - `add-apt-repository ppa:gnome-desktop`

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