

Introduzione all'Informatica

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GPG e LINUX

Generare una coppia di chiavi

- `gpg -h`

```
--fingerprint      list keys and fingerprints
-K, --list-secret-keys  list secret keys
--gen-key           generate a new key pair
--quick-gen-key     quickly generate a new key pair
--quick-adduid      quickly add a new user-id
--quick-revuid      quickly revoke a user-id
```

- `gpg --gen-key`

```
gpg (GnuPG) 2.1.15; Copyright (C) 2016 Free Software Foundation, Inc.
This is free software: you are free to change and redistribute it.
There is NO WARRANTY, to the extent permitted by law.
```

```
gpg: directory '/home/luvi/.gnupg' created
gpg: new configuration file '/home/luvi/.gnupg/dirmngr.conf' created
gpg: new configuration file '/home/luvi/.gnupg/gpg.conf' created
```

```
change (N)ame, (E)mail, or (O)kay? (Q)uit? O
We need to generate a lot of random bytes. It is a good idea to perform
some other action (type on the keyboard, move the mouse, utilize the
```

Uso della chiave privata

- gpg -K per vedere la lista delle chiavi private
- Crittare un documento:

```
[redo@buchner ~]$ fortune > test.txt
[redo@buchner ~]$ cat test.txt
Good day for overcoming obstacles. Try a steeplechase.
```

- Adesso usiamo la nostra chiave privata :

```
[redo@buchner ~]$ gpg -a -e -r lorian@storchi.org test.txt
[redo@buchner ~]$ cat test.txt
Good day for overcoming obstacles. Try a steeplechase.
[redo@buchner ~]$ cat test.txt.asc
-----BEGIN PGP MESSAGE-----

hQIMA+U4XULyDYGEAQ/8COocYQltQXulXMdh6scCx6/tF+fkrDPaHojpyxJaCplp
Y0XG+GoaVoJPFCdJdFfQRVsGe+zrlpUZh/OUmdP2qKzAzj5f8azTyypoBhxcoJfI
KnwbLqjzYbhJ+i/ikiRYln3tAonKuwuTzOWk7xnUWLxR/JZi3KYjbIoz1B6DX7V8
RjSR6p9eubCP1qn8lhWPxEsPOYwszTAsf1zi01JVUPedG+QhaZakQrSi0F+mFR9G
duhWgqHSQNqmA53h7twC4Mtqu2BE1bRhsAOF5Df6kJvfZqkwMTTOZtxmokvHyk8
Xnb8dIH5aDd72Df/RRvPxnt0QrRiBpsKz4c11/u019PVMQlyQcp+aSod7rMhA3w0
```

Decrittare

- `gpg -a -d test.txt.asc`

```
"Loriano Storchi <loriano@storchi.org>"  
Good day for overcoming obstacles. Try a steeplechase.  
[redo@buchner ~]$
```

- Cancellare in modo sicuro il messaggio in chiaro:

```
[redo@buchner ~]$ wipe test.txt  
Okay to WIPE 1 regular file ? (Yes/No) yes  
Wiping test.txt, pass 34 (34)  
Operation finished.  
1 file wiped and 0 special files ignored in 0
```

- EncFS per crittare una directory intera o LUKS un intero disco o filesystem