

BackupPC su macchine virtuali

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Outline

I parte, *il backup*:

Perchè e come backuppare

Backuppc

II parte, *il backup di macchine virtuali*:

i vantaggi della virtualizzazione

i punti critici dei servizi critici

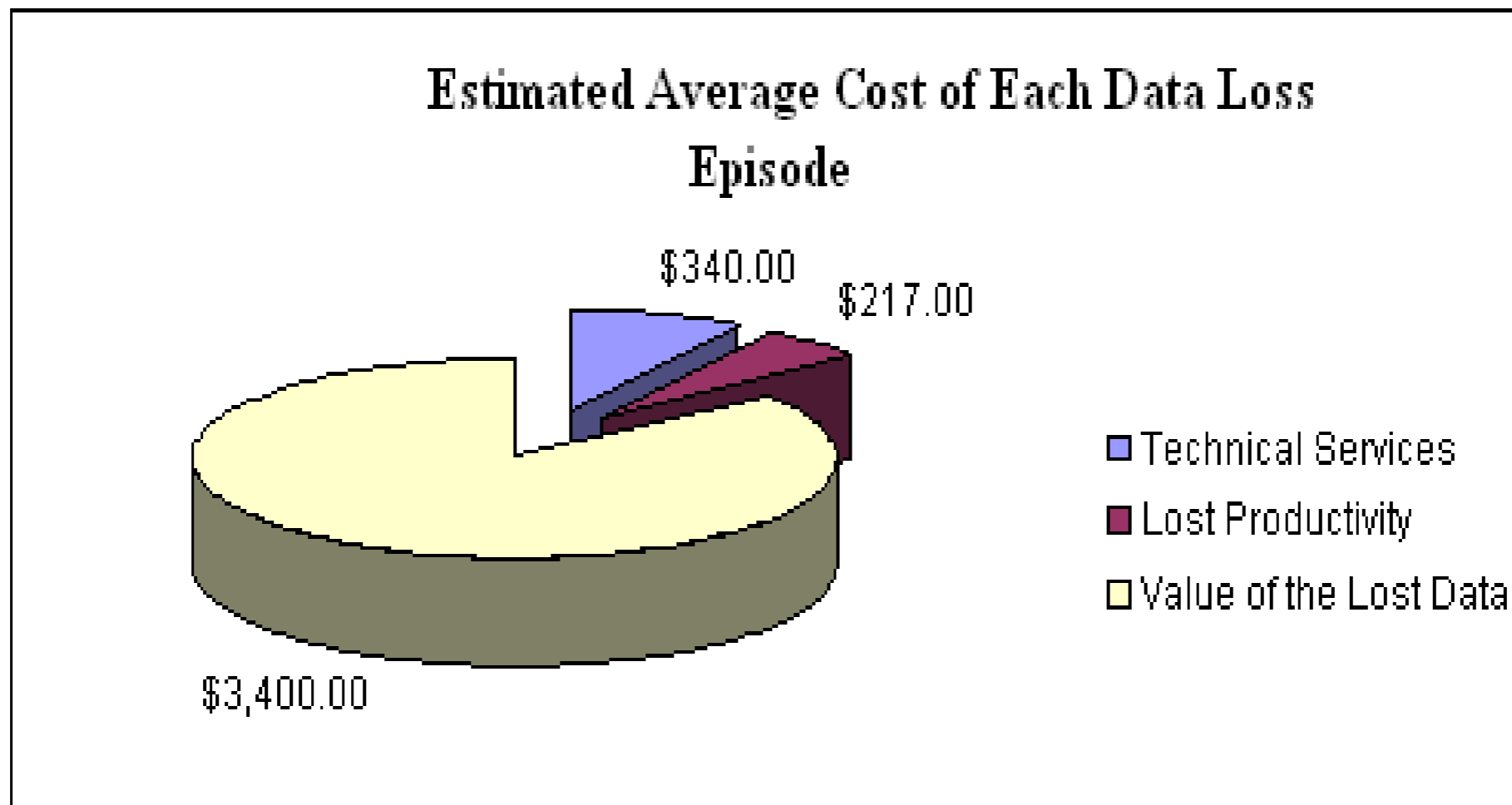
fare backups con gli snapshots

III parte, *un esempio pratico*:

backuppc-lvm

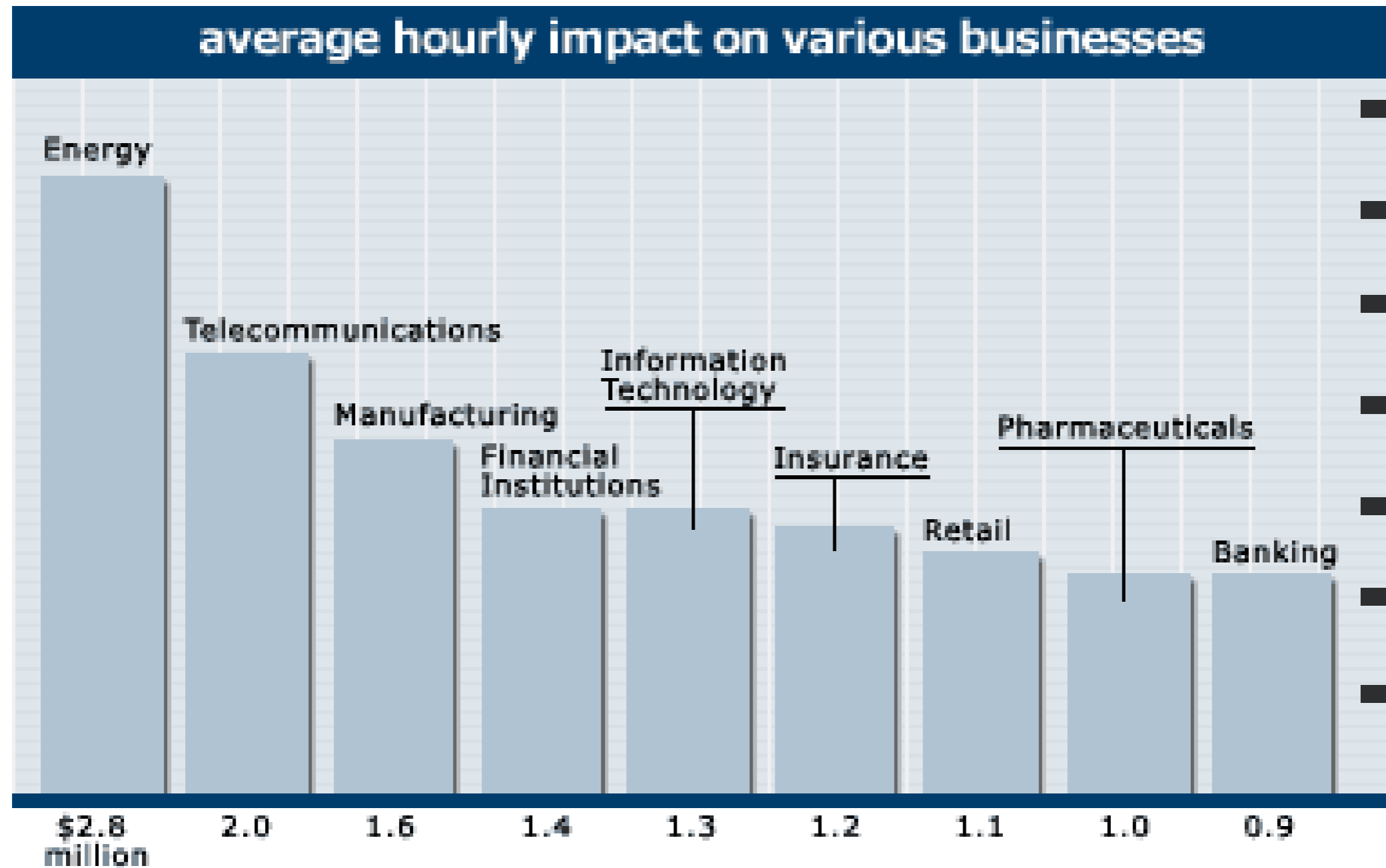






Source: Author's estimates based on data from Denise Deveau, "Lost all your data? Time to Call the Experts," *The Globe and Mail*, February 25, 2000; Bureau of Labor Statistics, *Employer Costs for Employee Compensation*, March 2003; and Bureau of Labor Statistics *Occupational Employment Statistics Survey*, 2001.





Source: IT Performance Engineering & Measurement Strategies: Quantifying Performance Loss, Meta Group, October 2000.

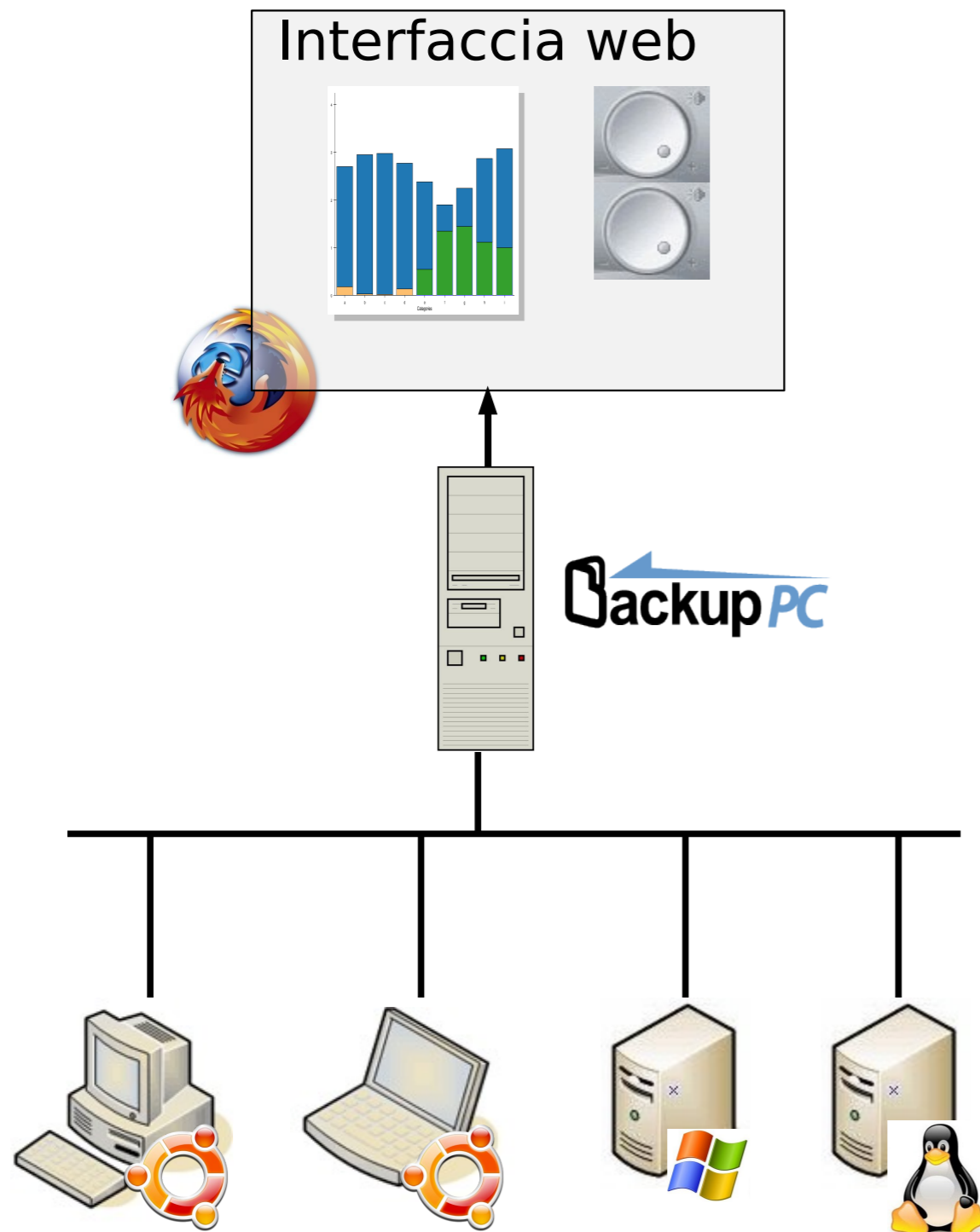


Un buon sistema di backup

- Velocità nel ripristino
- Minima interferenza
- Facilità di utilizzo
- Integrità dei dati
- Completezza
- Ottimizzazione (*storage*, rete)
- Sicurezza



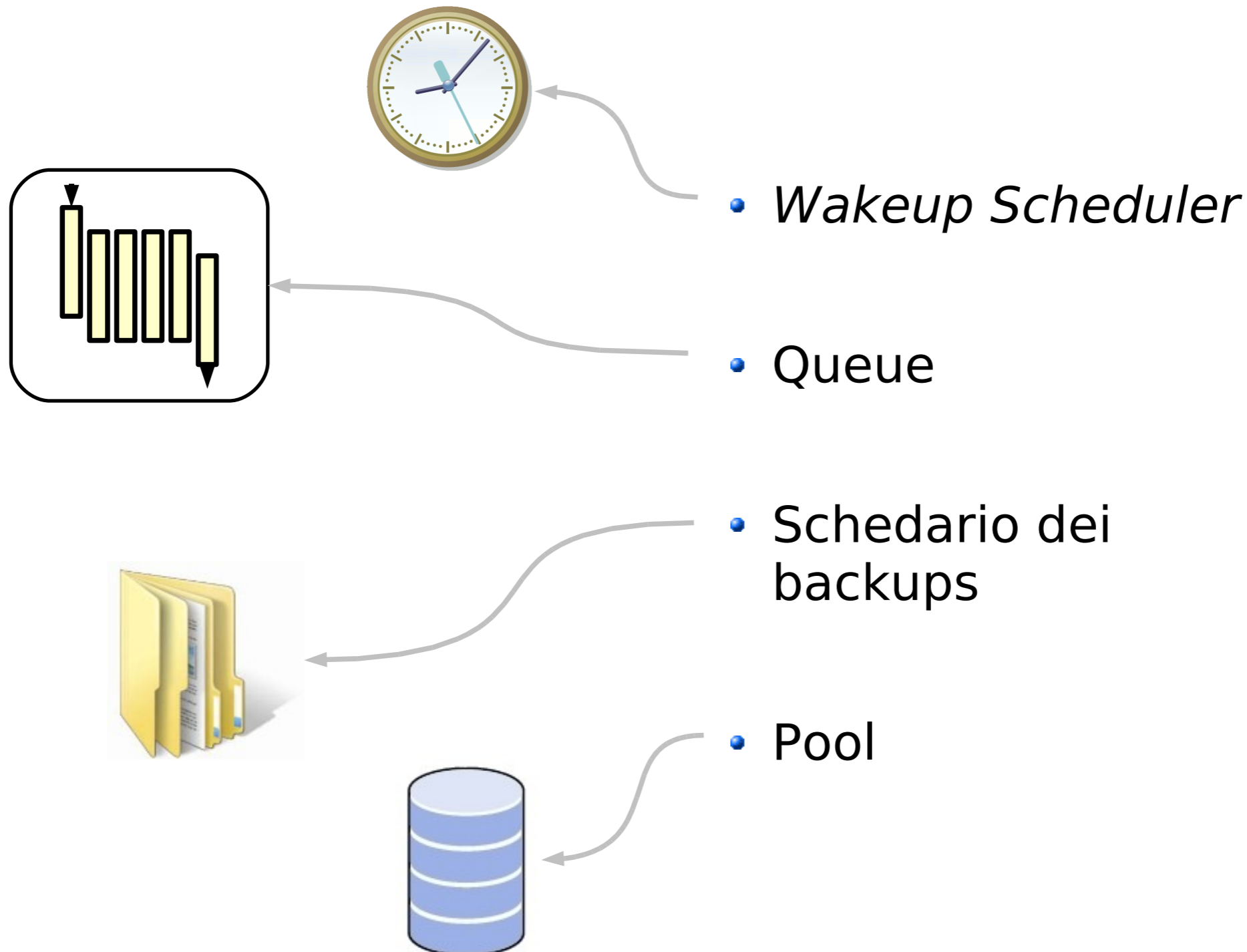
BackupPC - Caratteristiche



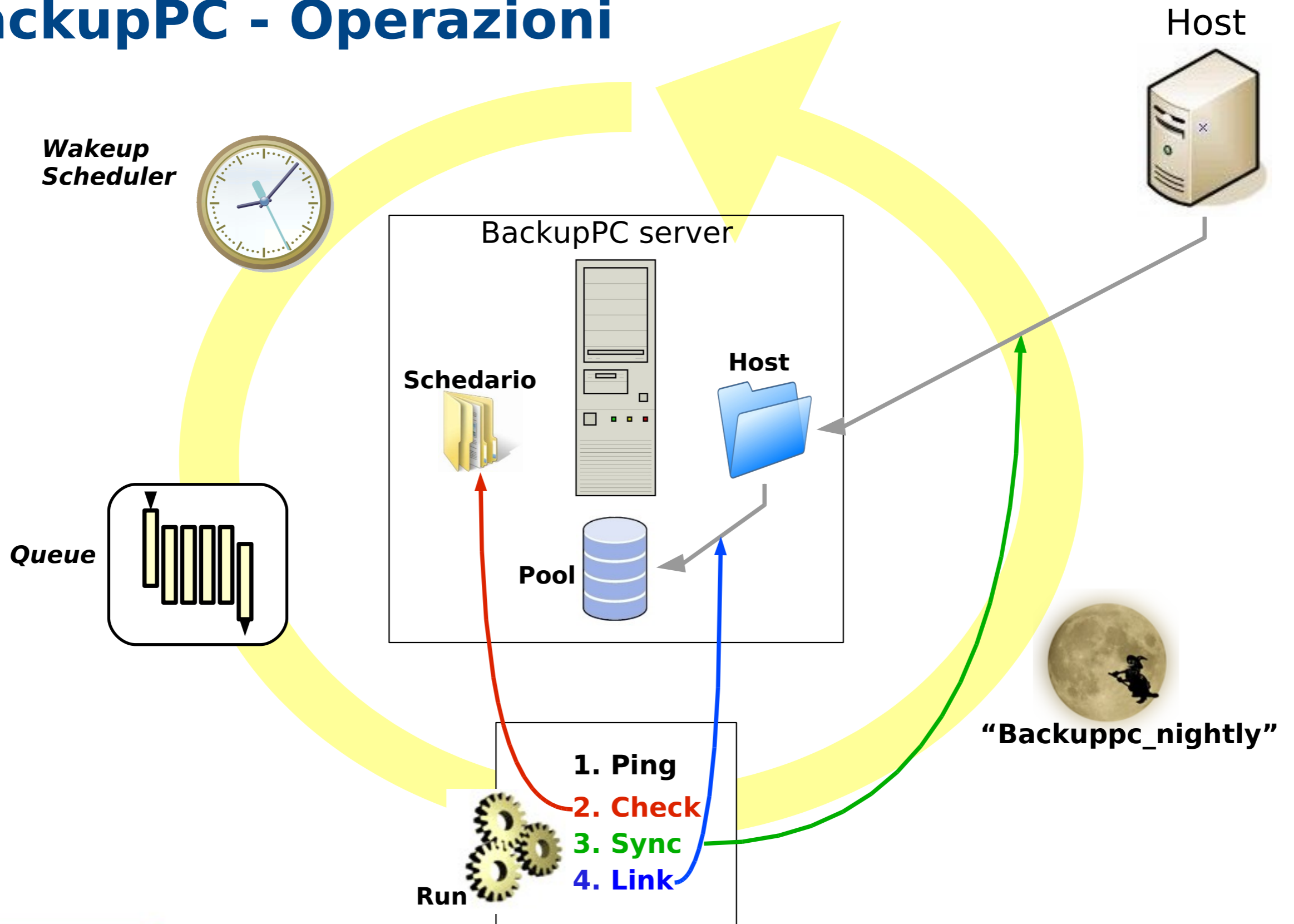
- Sistemi operativi:
 - FreeBSD/NetBSD/OpenBSD/Apple Mac OS X
 - Sistemi POSIX (Linux/BSD/UNIX-like Oses), Linux, Solaris
- Perl
- Web-based (console utilities)
- Ottimizzazione delle risorse:
 - Sync differenziali
 - Data de-duplication
 - Compressione



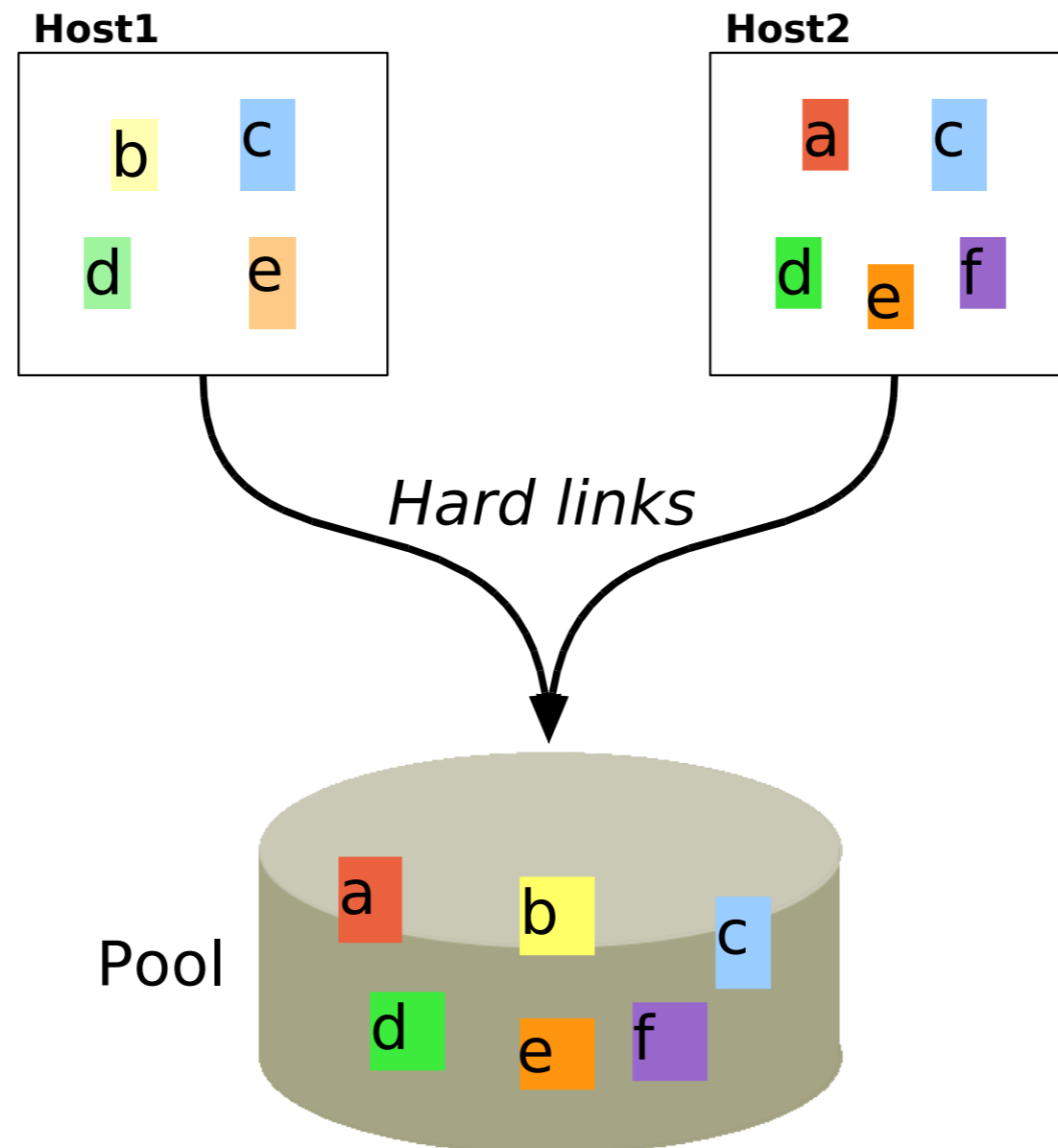
BackupPC – Componenti fondamentali



BackupPC - Operazioni



BackupPC – *data deduplication*

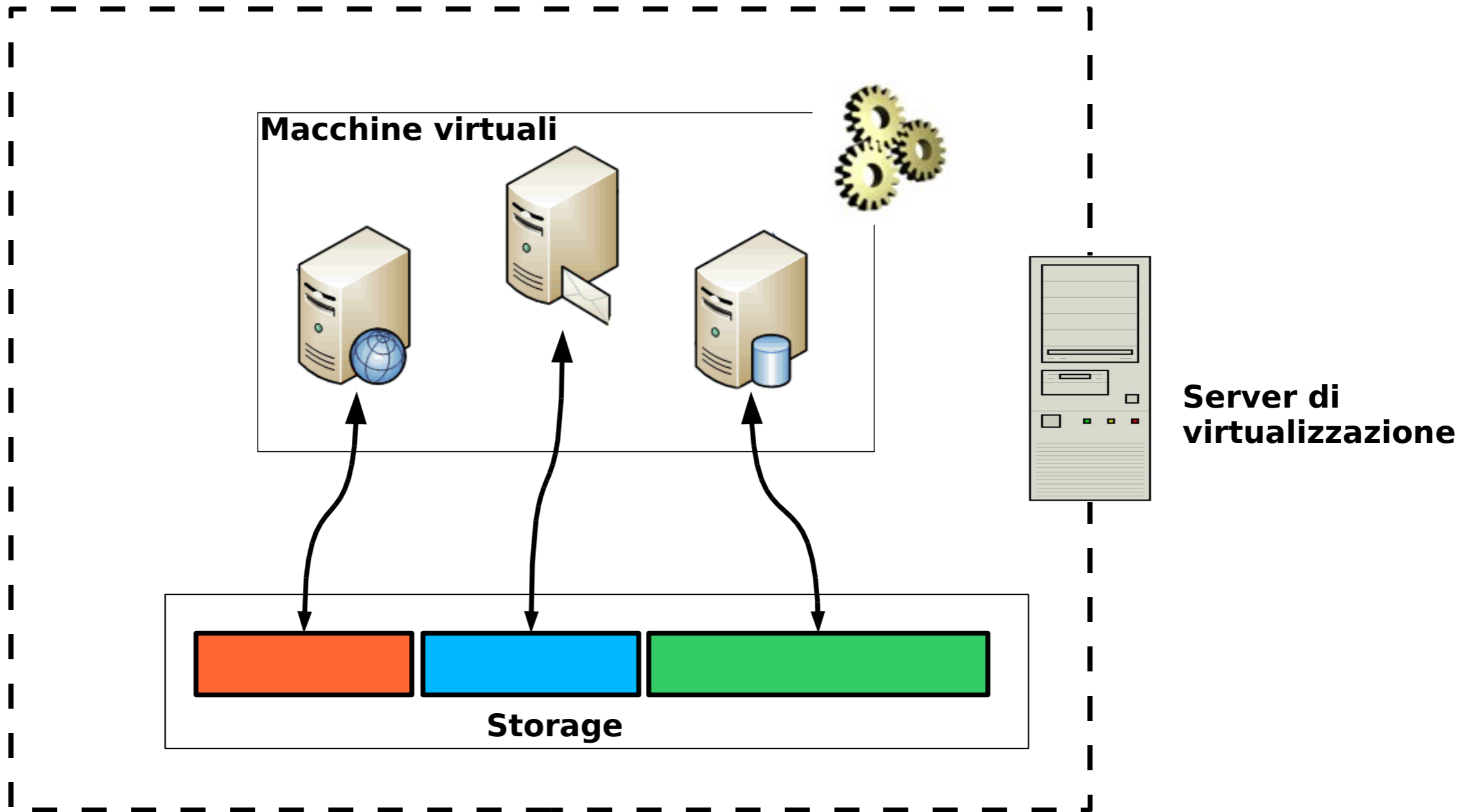


BackupPC live session

...



Le macchine virtuali



Perche` virtualizziamo?

- Consolidamento
- Ottimizzazione delle risorse
- Facilità di gestione
- Semplificare le singole installazioni
- Sicurezza
- *High availability* (migrazioni e ripristino)

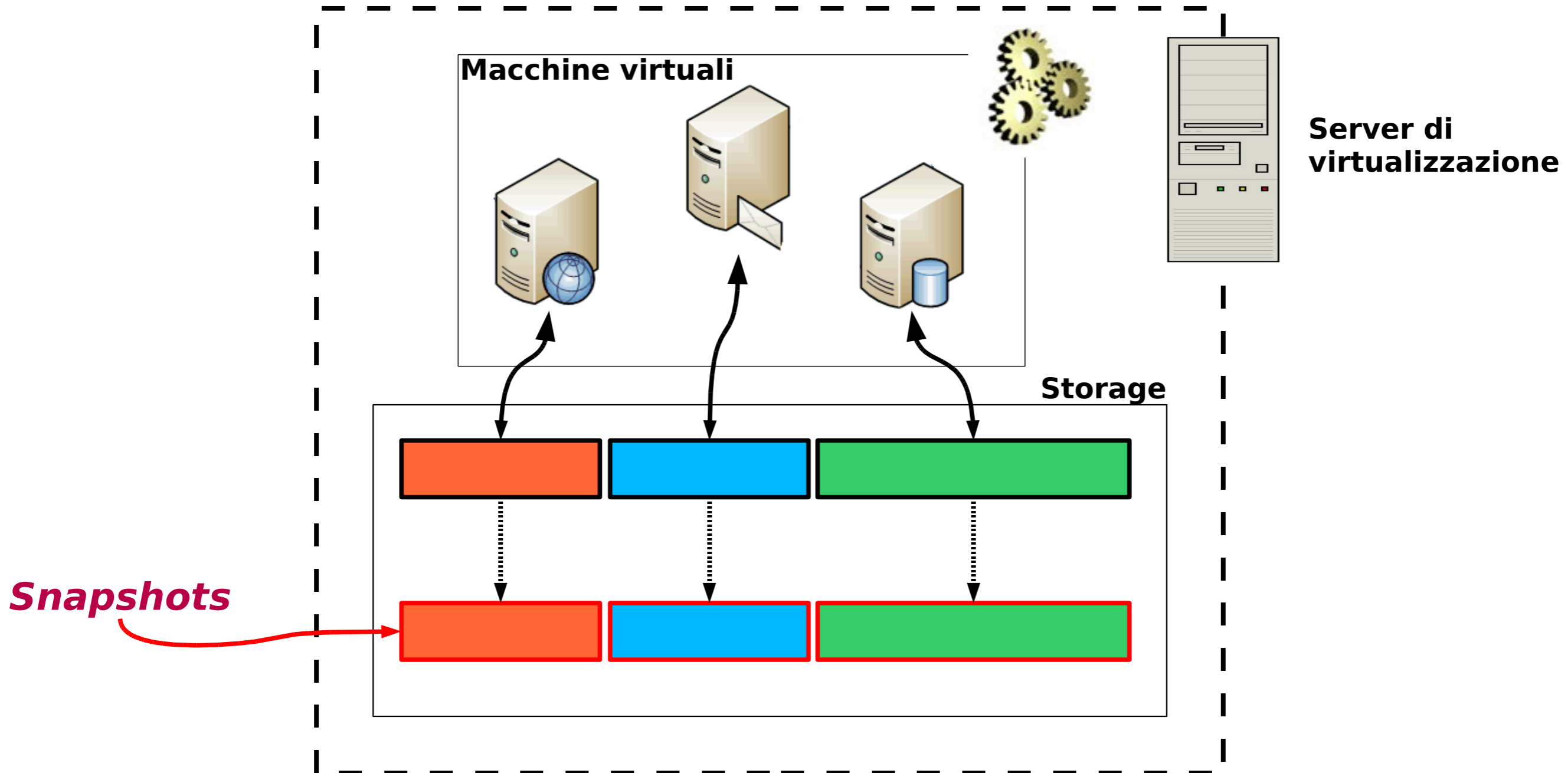


Il backup di server *high availability*

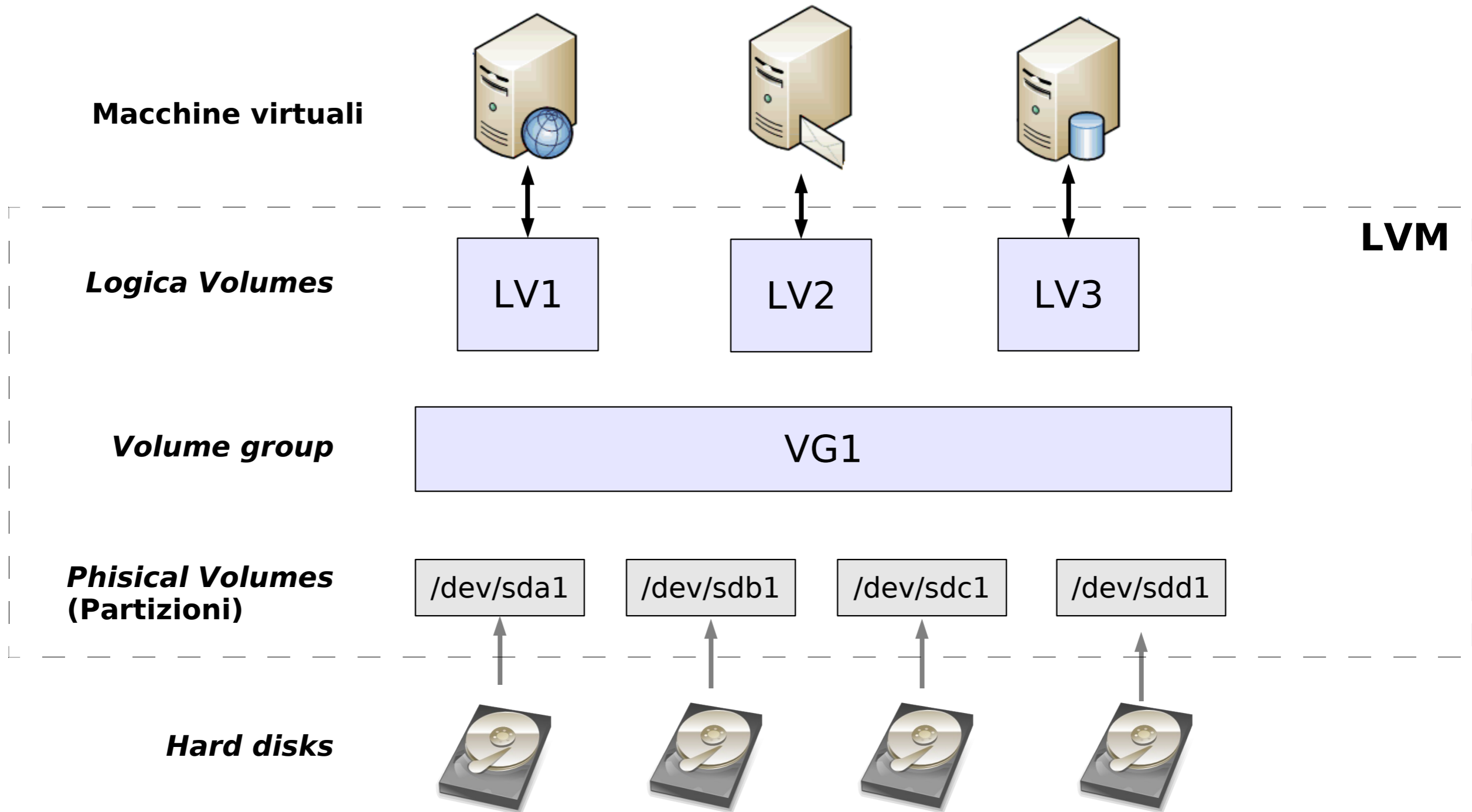
- Non vogliamo che il backup interferisca togliendo risorse
- Backup di servizi attivi:
 - Integrità dei dati/fuzzy backups
 - Verifica della copia o pausa del servizio
- Downtime minimo
- Ripristino rapido (*Bare-metal restore*)



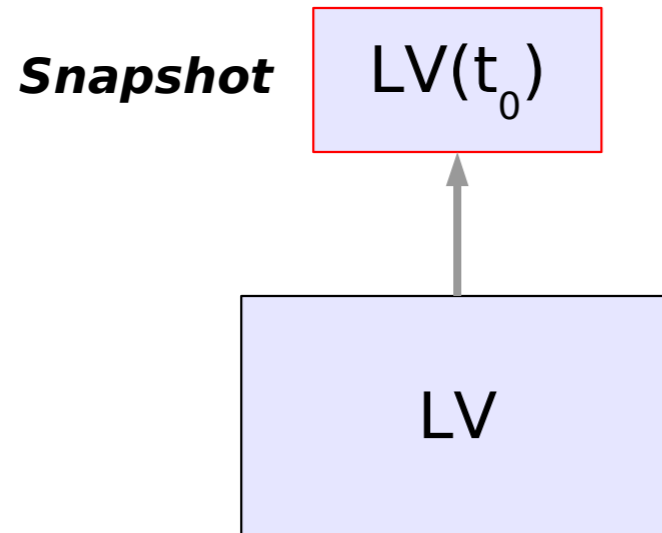
Gli snapshots



Logical Volume Manager (LVM)



Esempio: gli *snapshots* con LVM



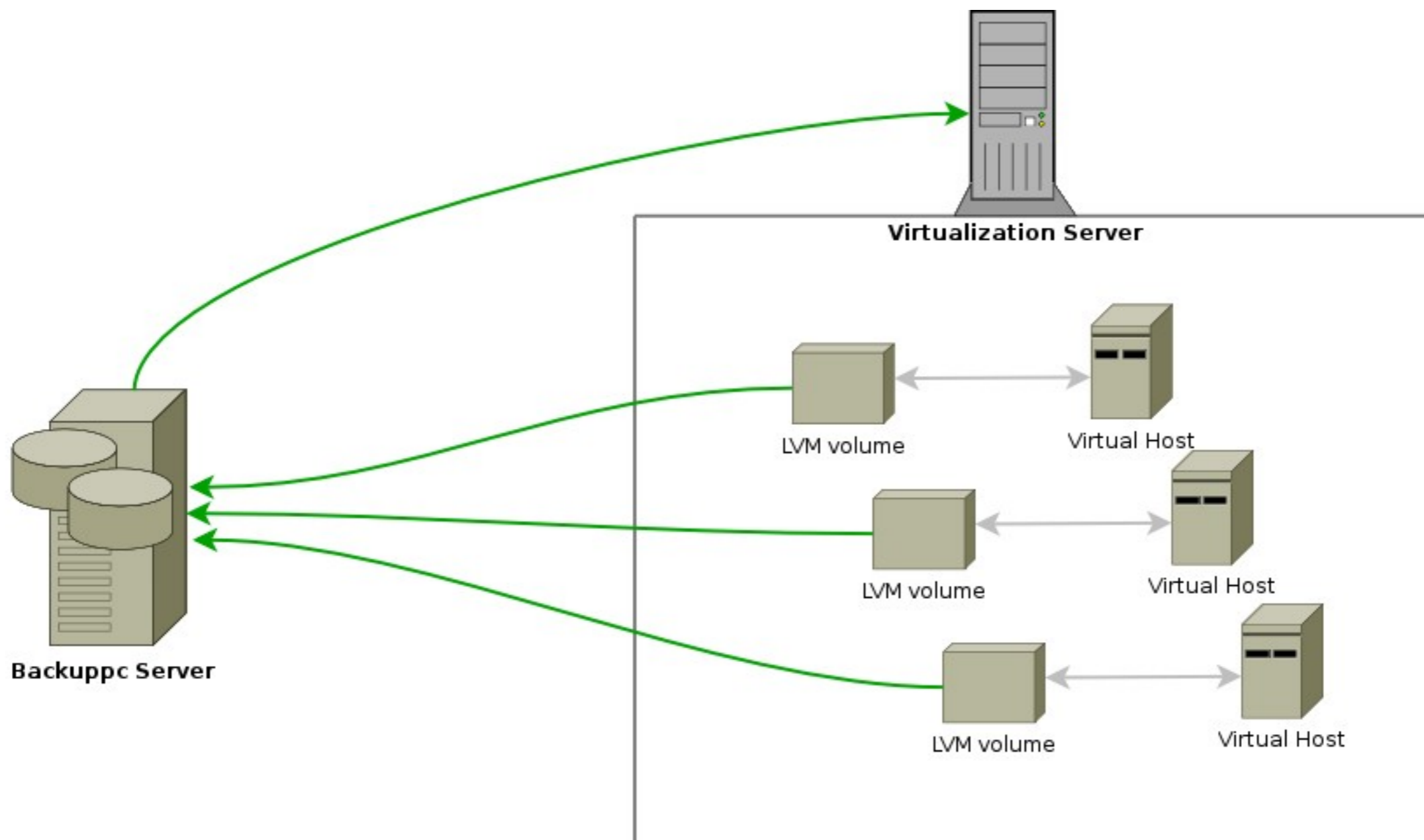
- Rapido
- Copy-on-write
- Poco spazio

BackupPC

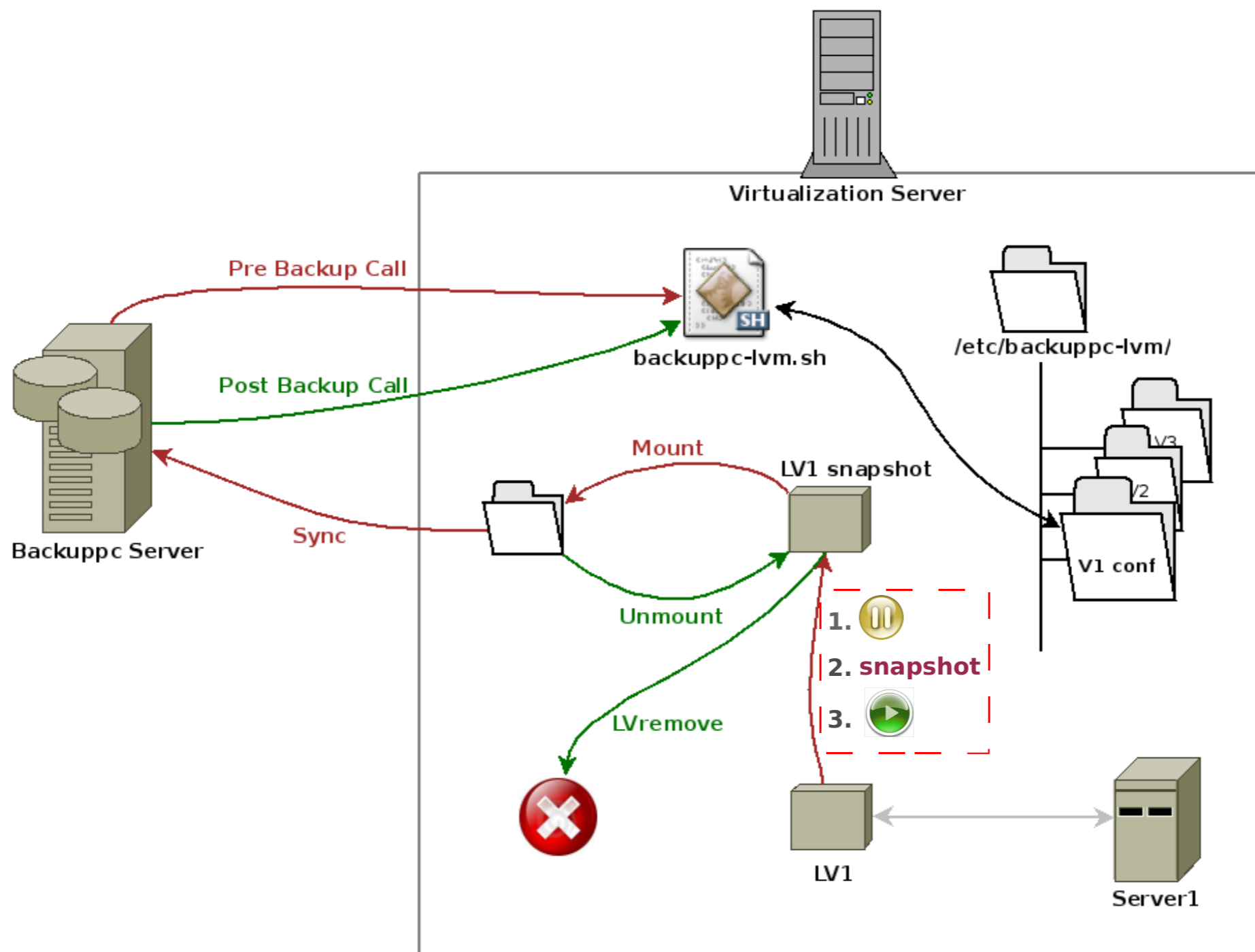
```
lvcreate -L10G -s -n server1.snap /dev/vg1/server1
mount /dev/vg1/server1.snap /mnt/server1-snap
tar -pczf /backups/server1.tar.gz /mnt/server1
```



BackupPC + LVM



“Backuppc-lvm”



“Backuppc-lvm” setup

Guida e download:

<http://www.biodec.com/tools/software/backuppc-lvm>

Install:

Debian/Ubuntu package



GRAZIE PER L'ATTENZIONE

