

PROS AND CONS OF VIRTUALIZATION

Pros of Virtualization:

1. Saves Money:

- You need fewer physical computers or servers, which lowers costs for buying and maintaining them.

2. Better Use of Resources:

- ★ It lets you run multiple virtual systems on one machine, making better use of your hardware.

3. Easy to Grow or Shrink:

- You can easily add more virtual machines when needed or reduce them if not, without buying more hardware.

4. Simple Management:

- You can control and manage all virtual machines from a single place, making updates and monitoring easier.

5. Flexible and Portable:

- Virtual machines can be moved between servers or copied easily, which is useful for backups or upgrades.

6. Safe Testing:

- You can test new software or changes in a virtual environment without risking the main system.

7. Fast Recovery:

- If something goes wrong, it's faster and easier to recover data or systems from virtual backups.



Cons of Virtualization:

1. Initial Setup Costs:

- Setting up virtualization can be expensive at first because of the software, hardware, and training required.

2. Slower Performance:

- If too many virtual machines run at the same time, the system may slow down since they share the same resources.

3. More Complex:

- Managing virtual systems can be complicated and might require special skills.

4. Security Risks:

- There is a risk that if one part (the hypervisor) is hacked, it could affect all the virtual machines on that system.

5. Risk of Hardware Failure:

- If the physical machine fails, all the virtual machines running on it stop working too.

6. Licensing Issues:

- The cost and rules for using software in virtual machines can be tricky and sometimes more expensive.