

OS backwards compatibility

Backward compatibility is bane of new OSes as it requires huge efforts to innovate but not break

➡ Security considerations may make it impossible in practice

Logical partitioning of servers

Run multiple servers on same box (e.g. Amazon EC2)

- Modern CPUs more powerful than most services need: e.g., only 10% utilization
- VMs let you give away less than one machine for running a service
- Server consolidation: N machines → 1 real machine
- Consolidation leads to cost savings (less power, cooling, management, etc.)

Isolation of environments

- Safety - printer server failure doesn't take down Exchange server
- Security - compromise of one VM cannot get at data of others

Resource management

- Provide service-level agreements

Heterogeneous environments

- Linux, FreeBSD, Windows, etc.