

# Why would you do such a crazy thing?

- **Software compatibility**

VMMs can run pretty much all software (since they can pretty much all OSes)

- **Resource utilization**

Machines today are powerful, want to multiplex their hardware

- **Isolation**

Seemingly total data isolation between virtual machines

- **Encapsulation**

Virtual machines are not tied to physical machines

- **Many other cool applications**

Debugging, emulation, security, speculation, fault tolerance...

# 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