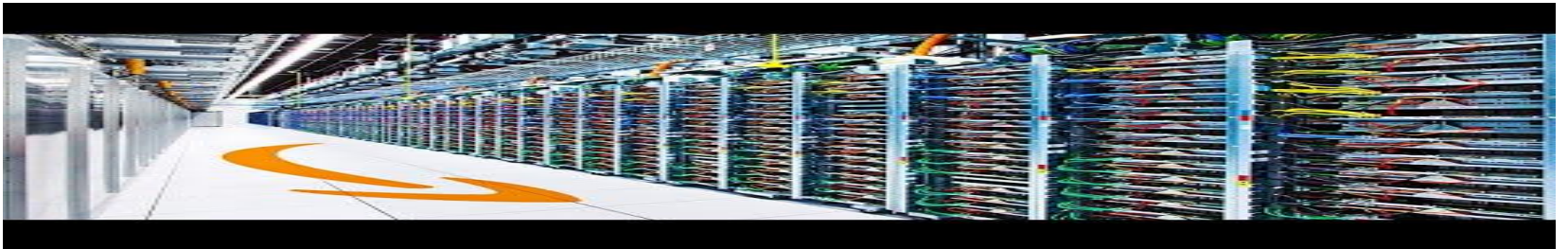


Software execution and packaging

- Virtual machines
- Software packaging
- Examples
- Trade-offs

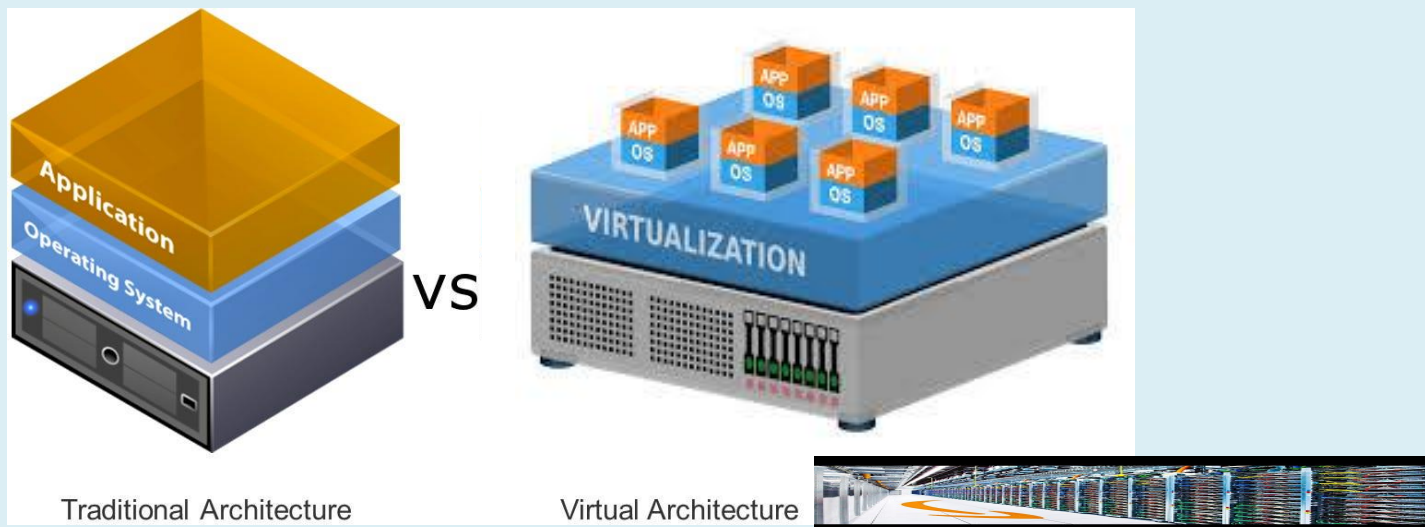


Software execution



Virtual machines

- Software runs on a "virtual machine"
- A **virtual machine** is software that acts like a physical machine



Why not run directly on the hardware?

The extra layer(s) introduce complexity and some inefficiency, but...

- Servers are big, share between customers
- Allow software to run anywhere in AWS
- Problems in one app do not impact others
 - *Hardware-enforced isolation between apps...*
- Allows live migration to another machine
 - *e.g. if you need more cores or RAM*

