# Network as Active Resource

- Recent developments in networking enable programmatic interaction between user and application

- Software Defined Networking
  - Started well before OpenFlow
  - e.g. Dynamic Circuits / Bandwidth on Demand systems
    - one application – **not the core of SDN**!

- Basic SDN Paradigm:
  Separation of Network control plane from the data plane

- Not bound any more by the feature set defined by the equipment vendors
  - But – you could be by the feature set of the software companies developing the control software
  - Or – you have the possibility to program the network behaviour yourself
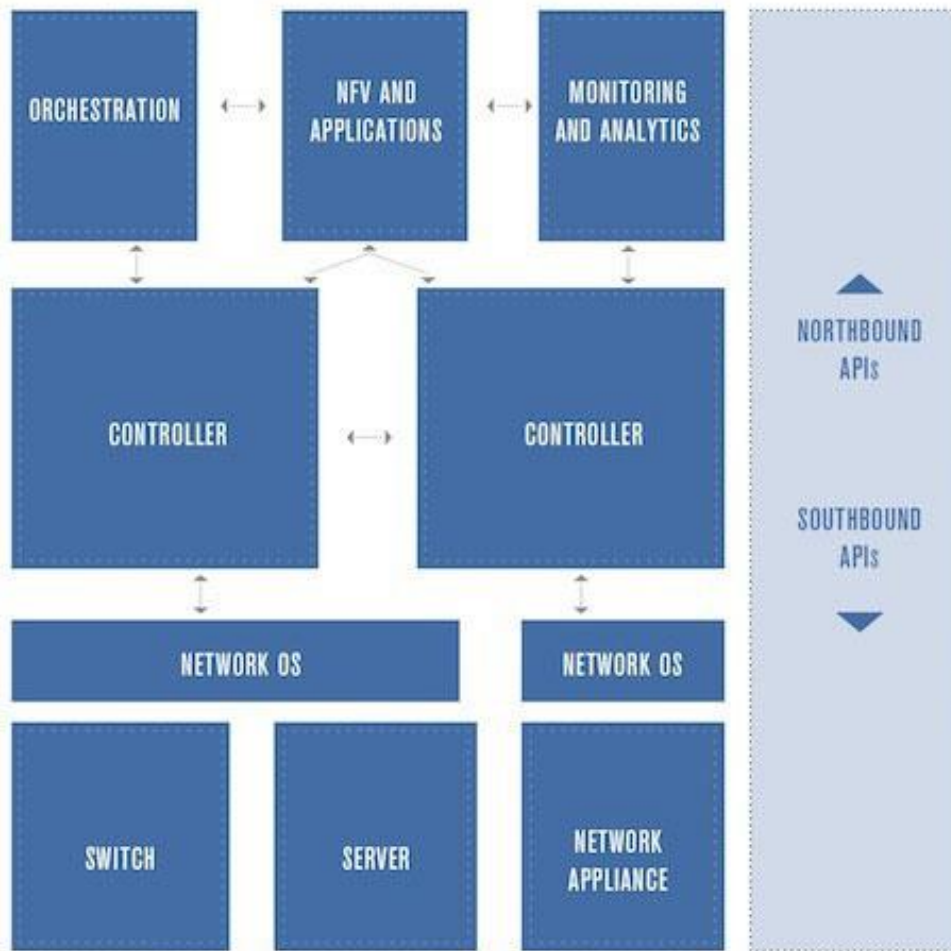
How can we leverage the new capabilities?

- The networks today are different from years ago
  - a reliable resource
  - new capabilities like SDN
  - …
  - and yes, much more bandwidth

- What impact does this have on the design of a modern distributed computing system?