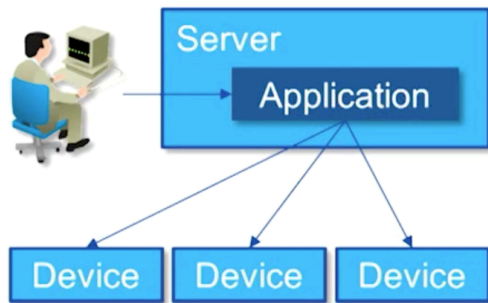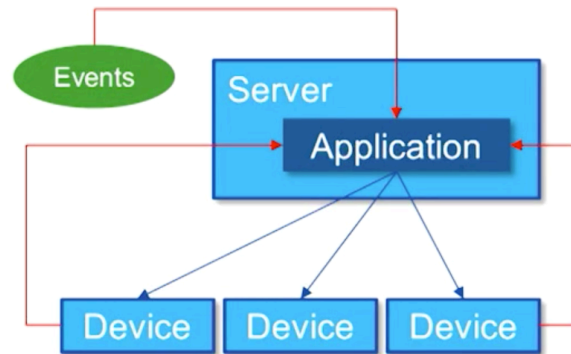Introduction to Network Programmability

Proactive versus Reactive Applications

Proactive

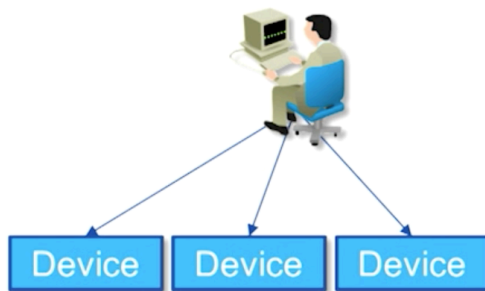- Intermittent changes
- Automated configuration at scale

Reactive

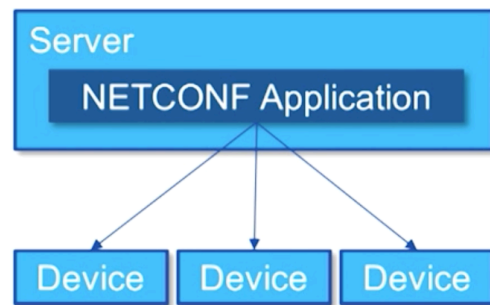- Frequent and dynamic changes
- Responding to network events

CLI versus NETCONF Applications

CLI Applications

- Support all devices
- Made for humans

NETCONF Applications

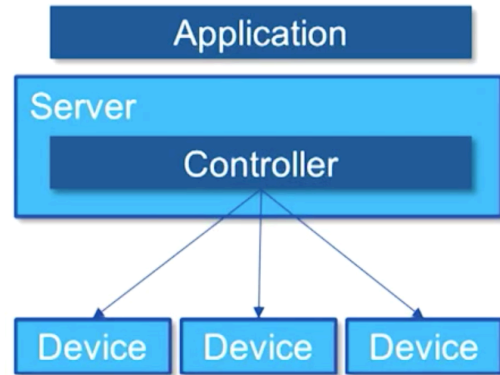- Supports many devices
- Made for applications

Standalone versus Controller-based Applications
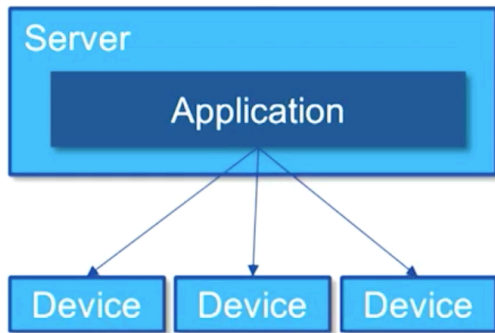
Standalone Applications

- Application performs discovery, topology, device communication
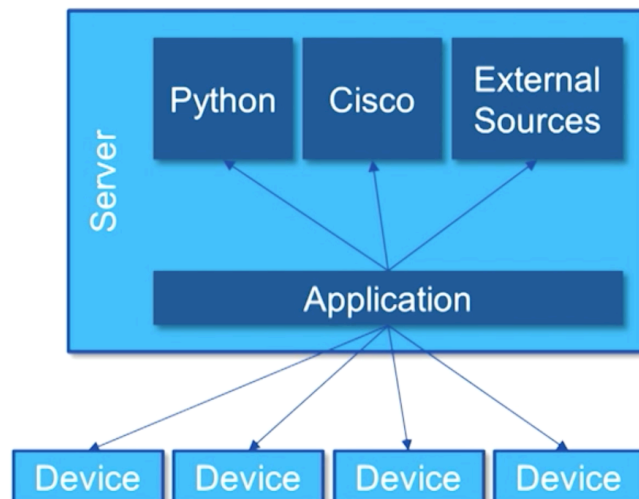
Controller-based Applications

- Controller performs discovery, topology, device communication, abstraction

External Support Libraries

Python code from other sources

- Python

- Cisco (DevNet, Learning Labs)

- External Sources
  - Device communication
  - Data formats
  - Printing