A Preliminary SDX:
One Switch, One Controller

Inputs
1. Routes (via BGP) per IP prefix (including attributes like price, etc.)
2. Selection function

Controller

Switch

Outputs
1. FIB entries in switch: One or more entries per AS that satisfy the selection for that AS
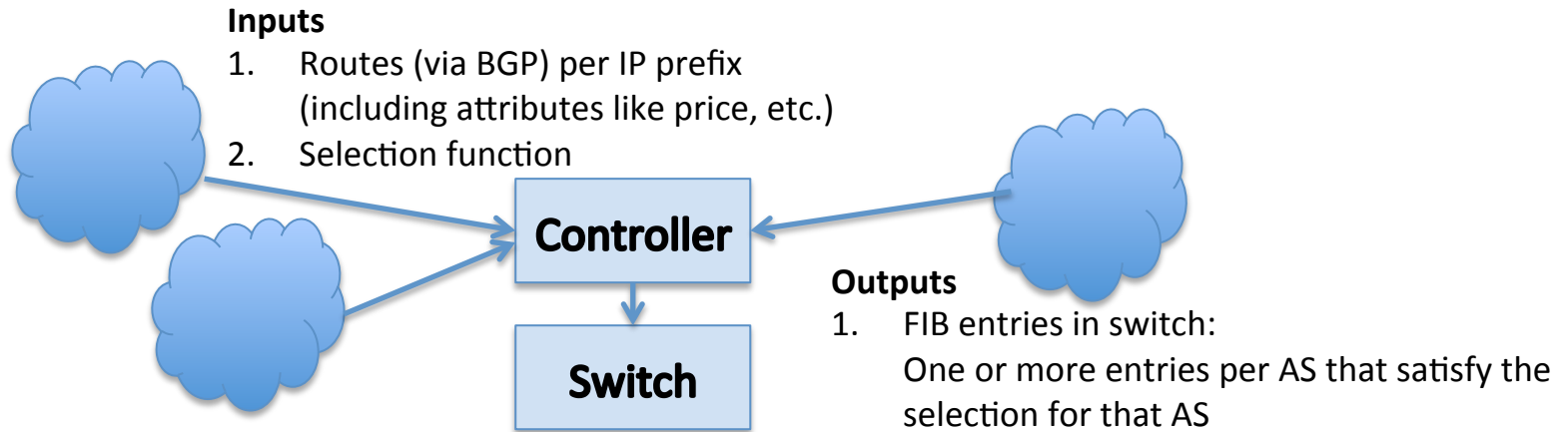
- **Step 1:** Controller at exchange receives
  - BGP routes from all ASes at the exchange
  - Auxiliary information
    - Pricing
    - Alerts for prefixes that may be subject to hijack (and alleged perpetrators)
- **Step 2:** Participant at exchange runs a function that executes at the controller to select route