neat

draft-fairhurst-taps-neat-00

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NEAT - Key Features

- **Single API to transport**
  - Ordered or Un-ordered delivery
  - Explicit support for multistreaming and multipath
  - Support for security
  - Single-sided (remote does not need to use NEAT)

- **Policy-based selection**
  - Optional policy manager
  - Flow/Application properties represented in JSON

Policy Example: Transport Selection

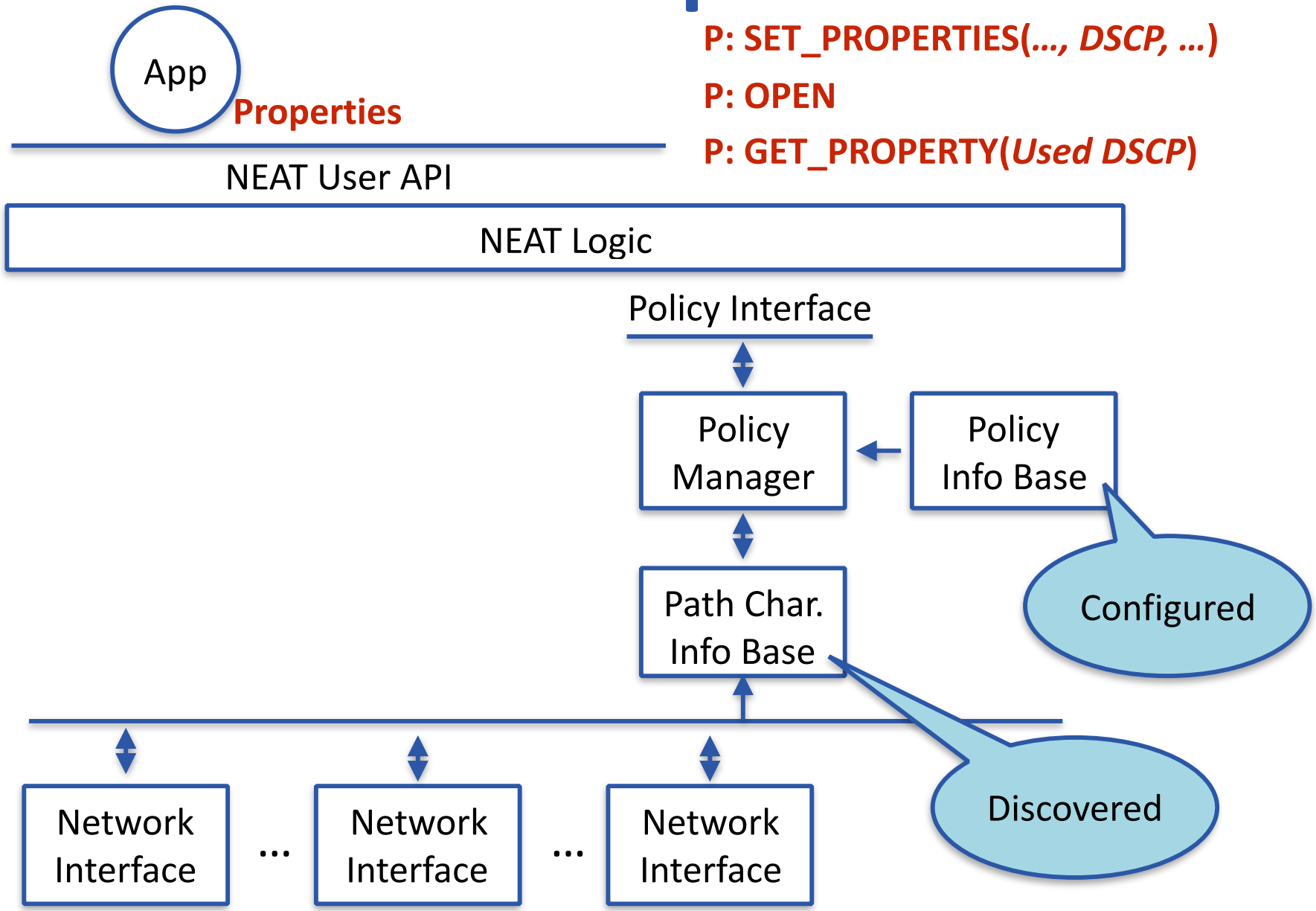
- App Sends JSON requiring reliable transport

```
{
    "transport": {
        "value": "reliable"
    }
}
```

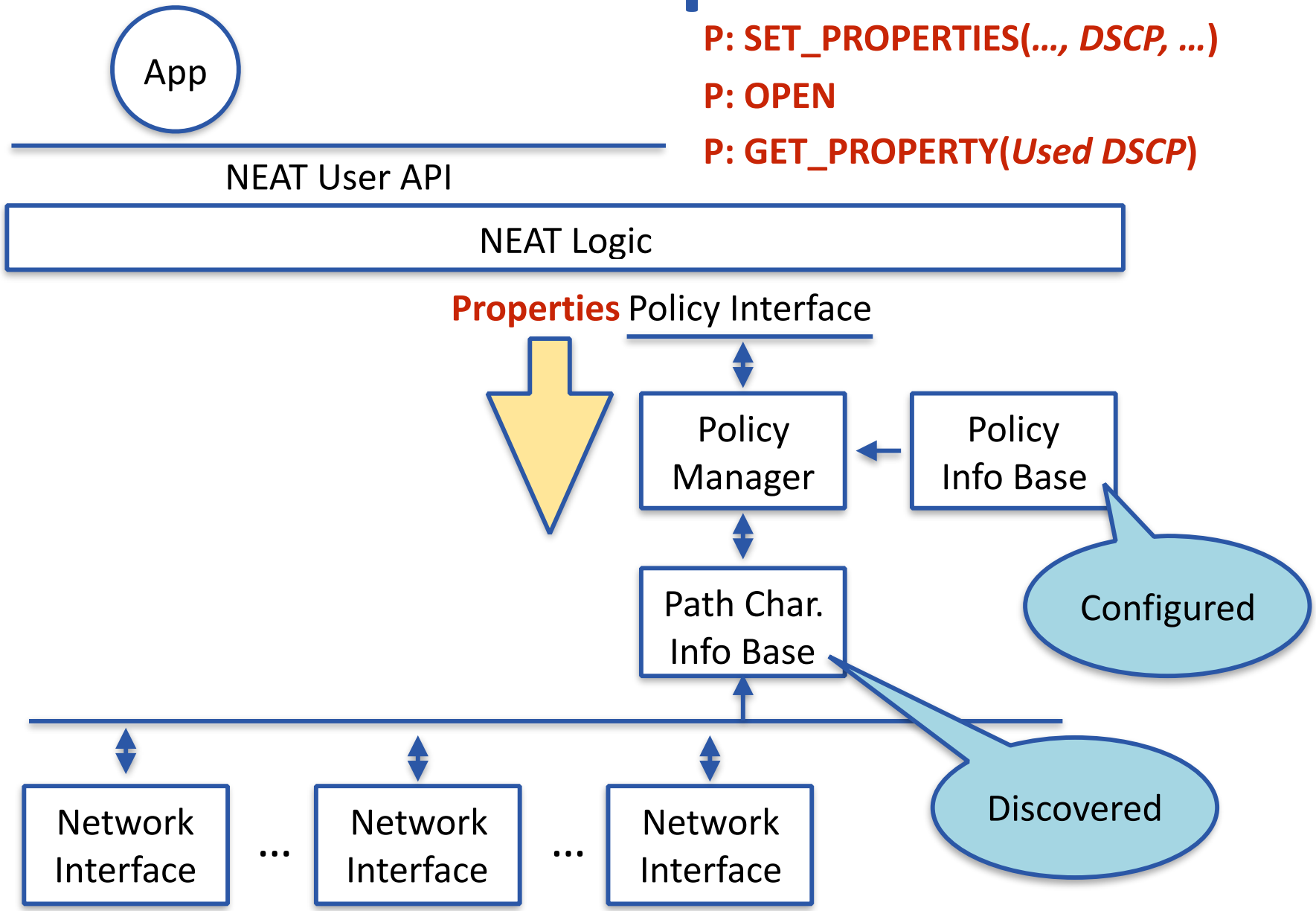
- NEAT proposes a set of candidates (SCTP, TCP, … MPTCP)
- NEAT performs happy eyeballs

  (draft-grinnemo-taps-he)
- A NEAT Flow Endpoint is used for communication

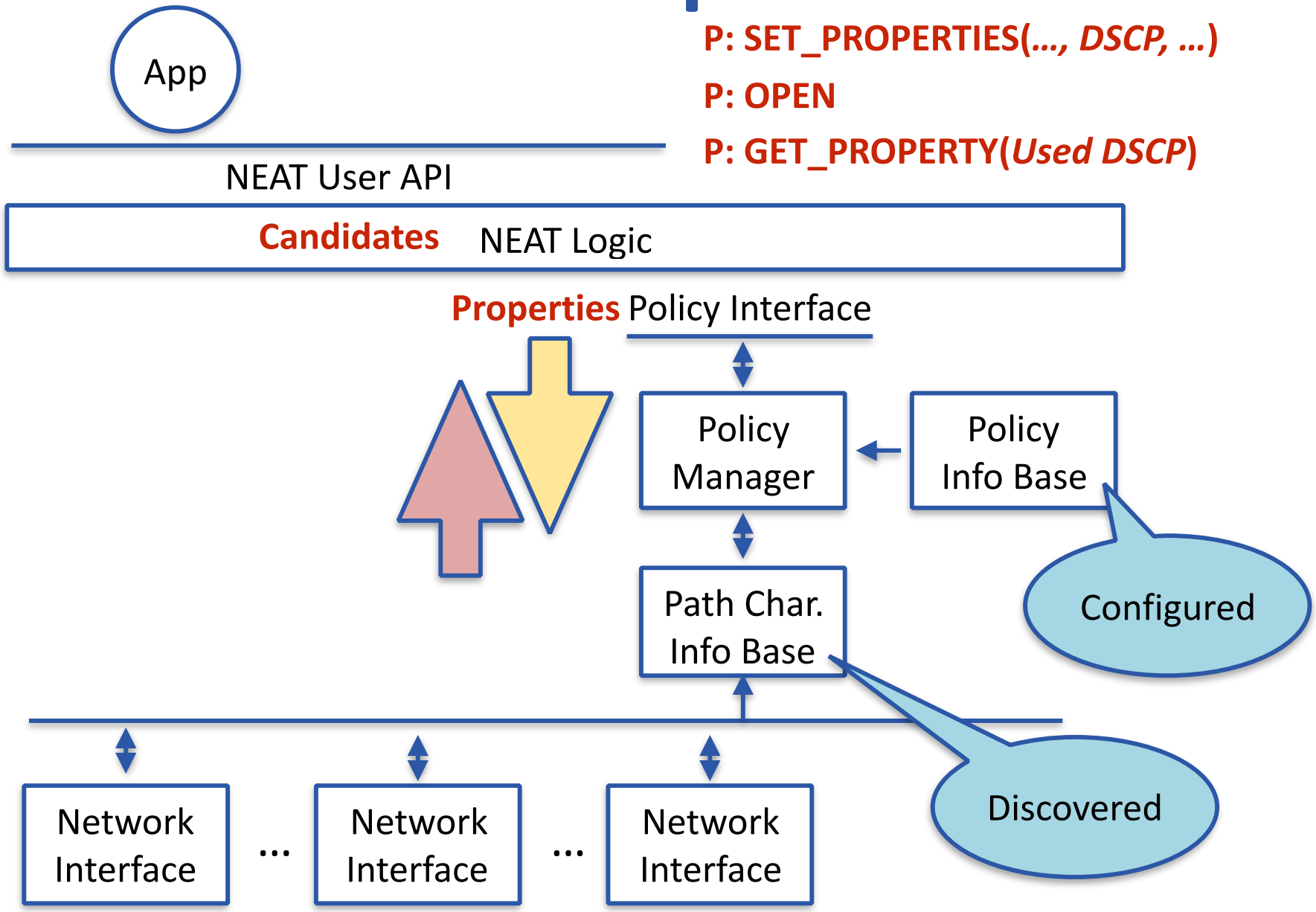
NEAT User API: Properties



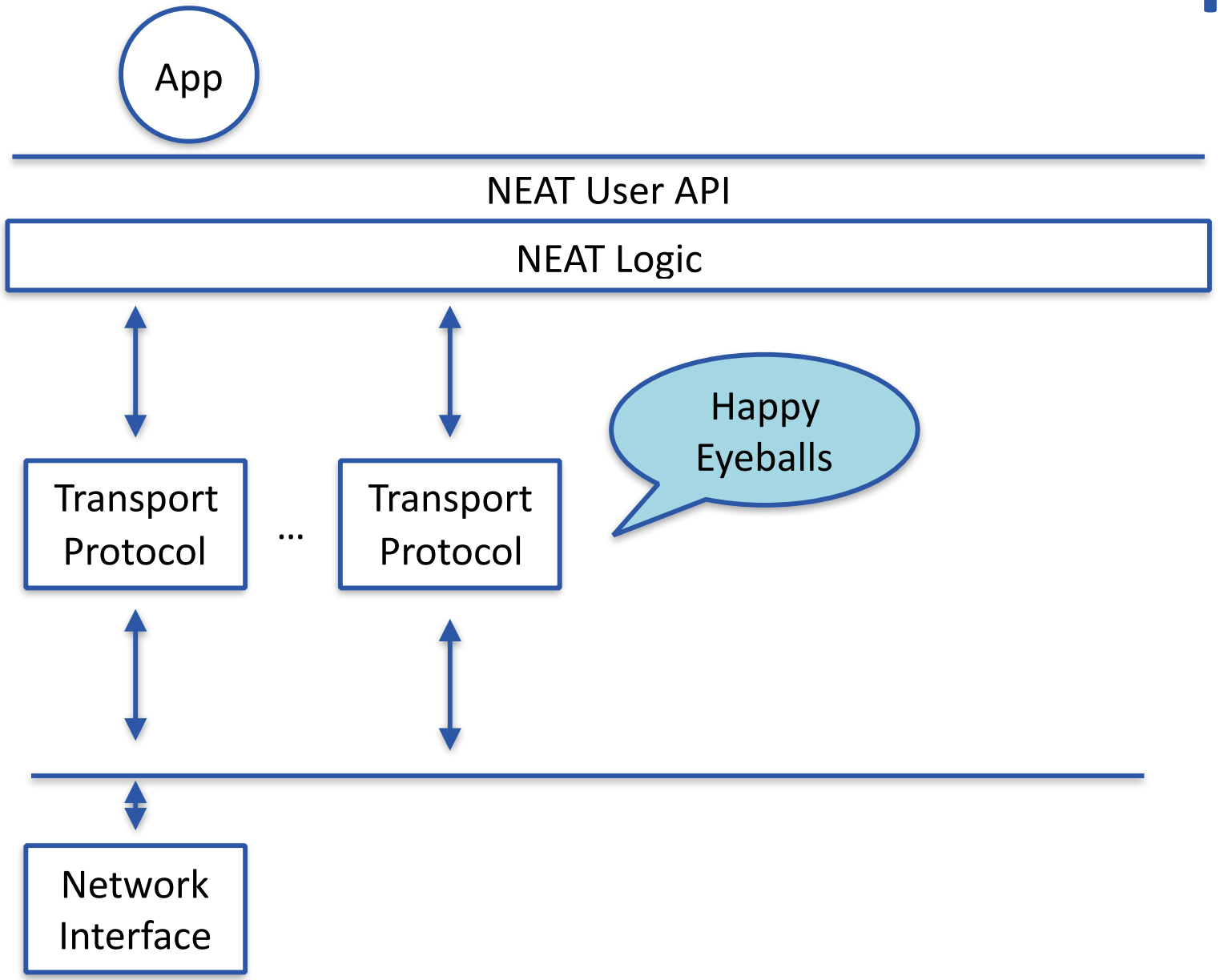
NEAT User API: Properties



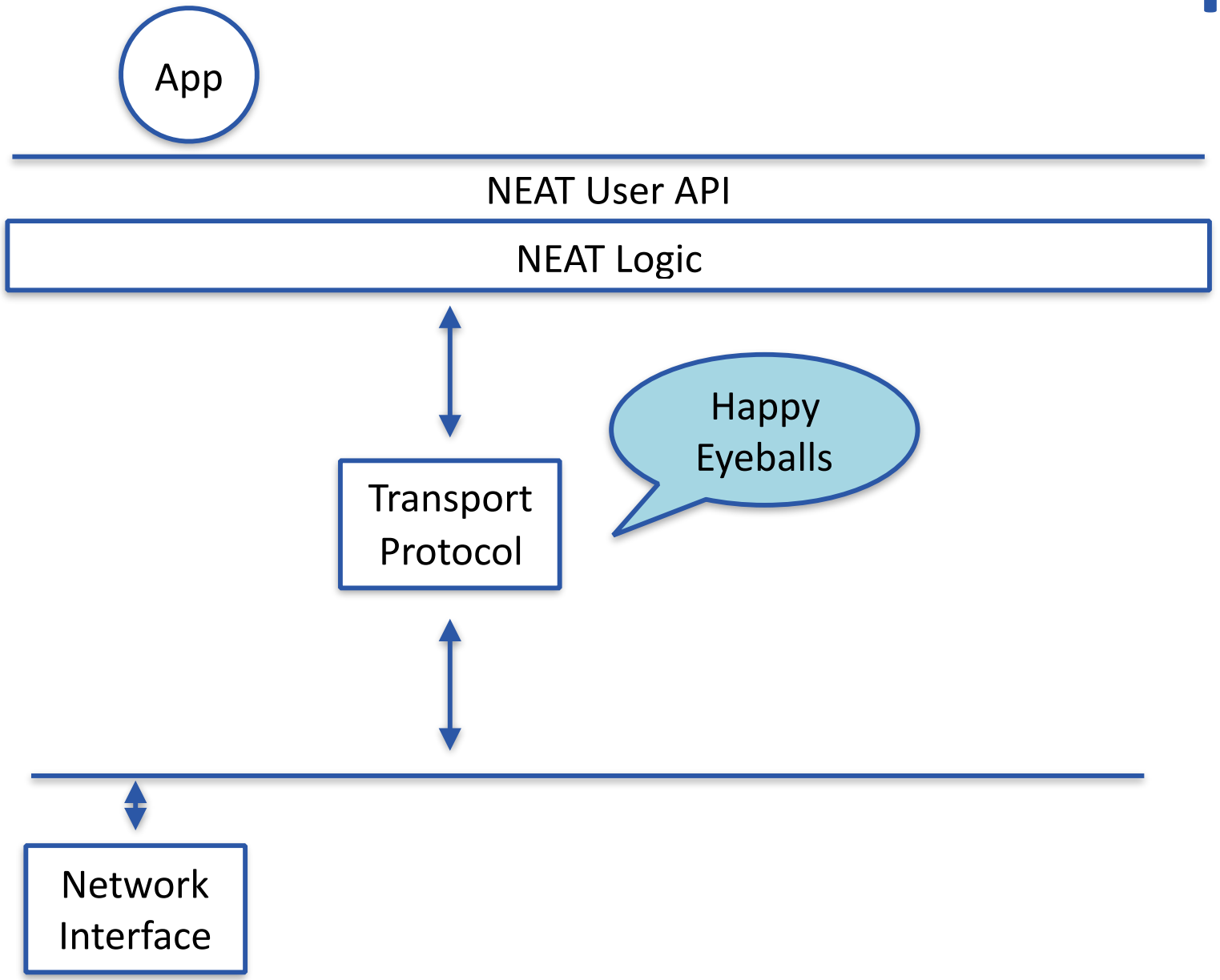
NEAT User API: Properties



NEAT User API: NEAT Flow Endpoint



NEAT User API: NEAT Flow Endpoint



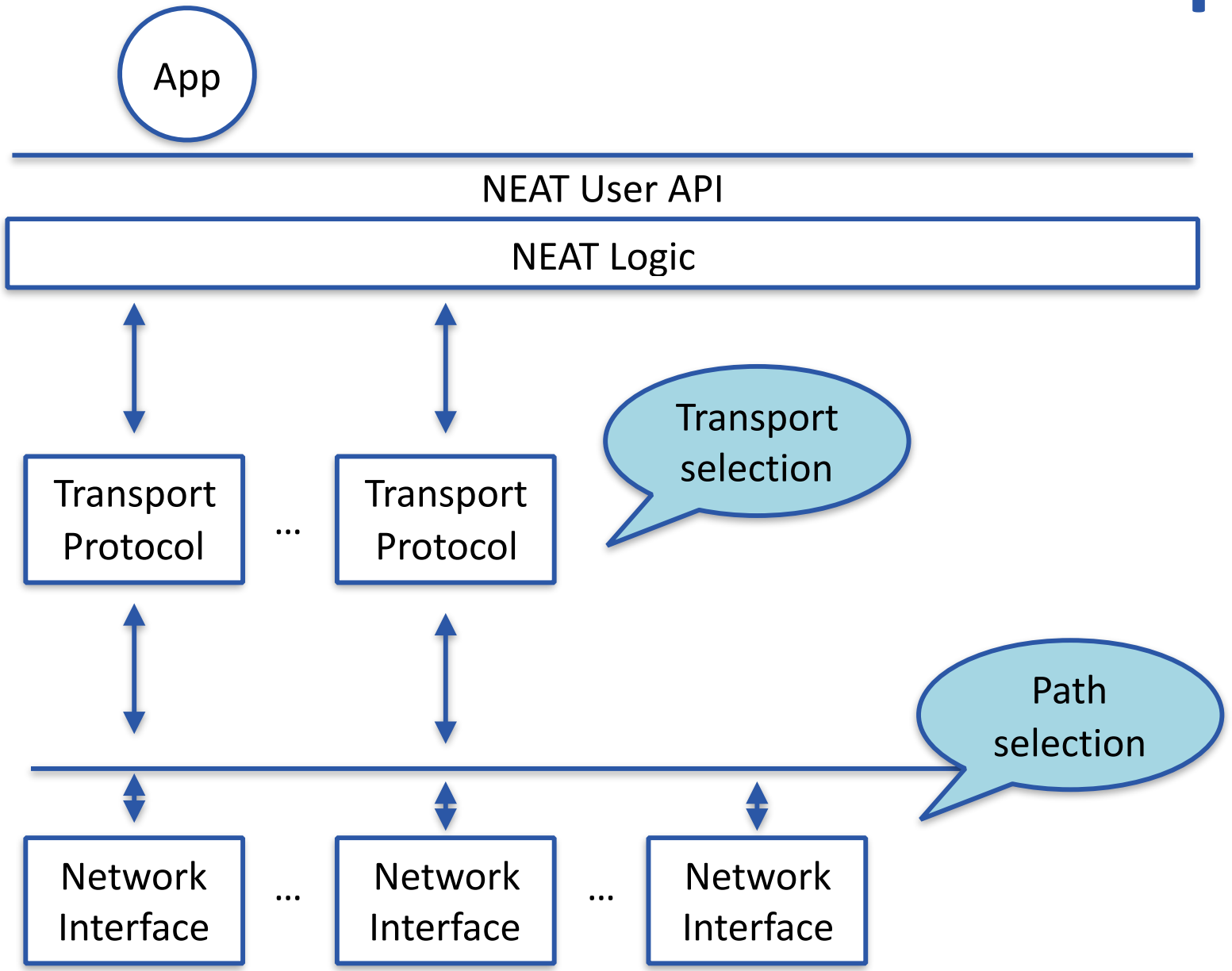
Policy Example: App Preference

- App Sends JSON requiring a network specific property

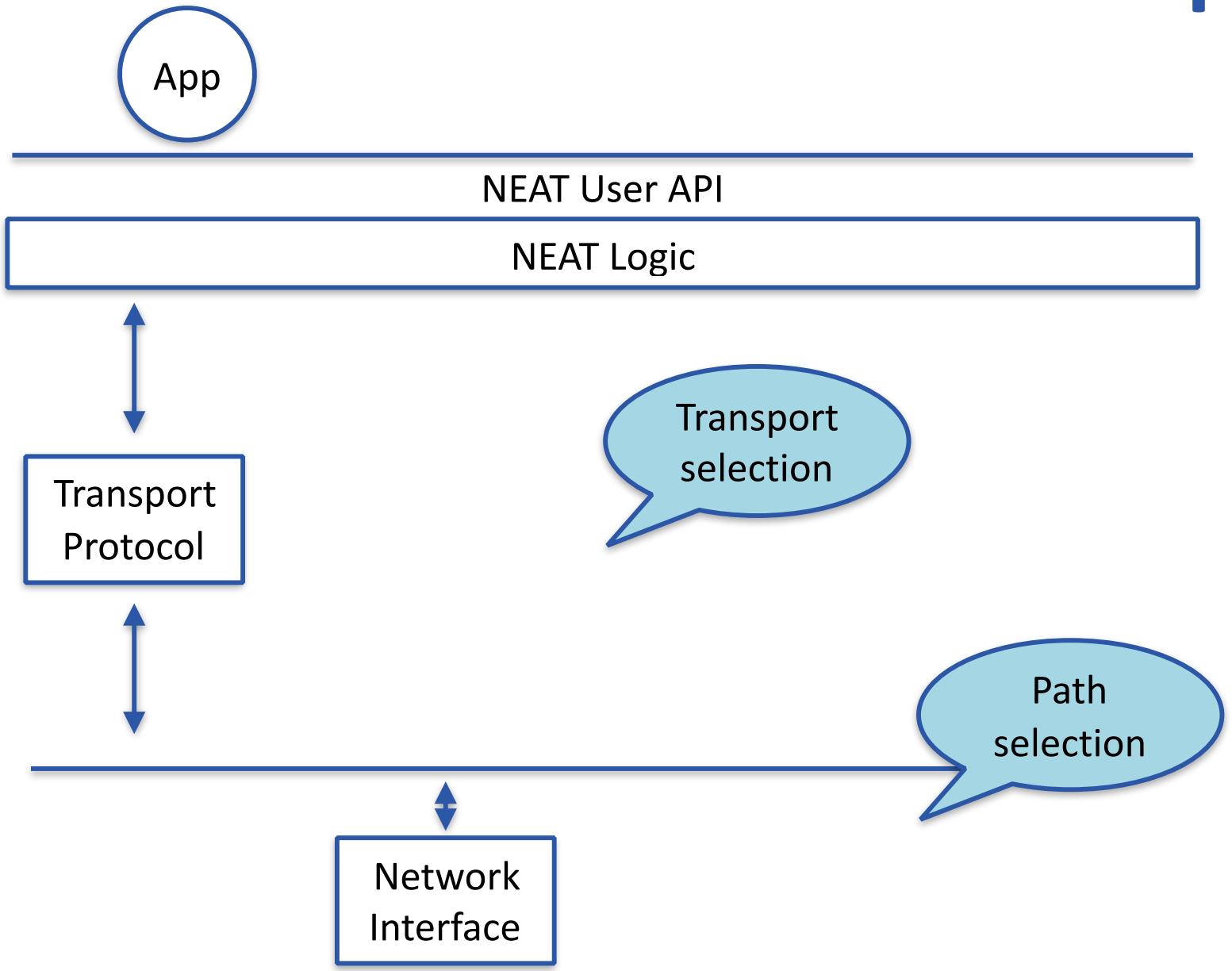
```
{
    "profile":"low_latency"
}
```

- NEAT Policy Manager proposes candidates
  - Interface with lowest known latency (measured or signalled) will be first candidate
- NEAT Logic creates a NEAT Flow

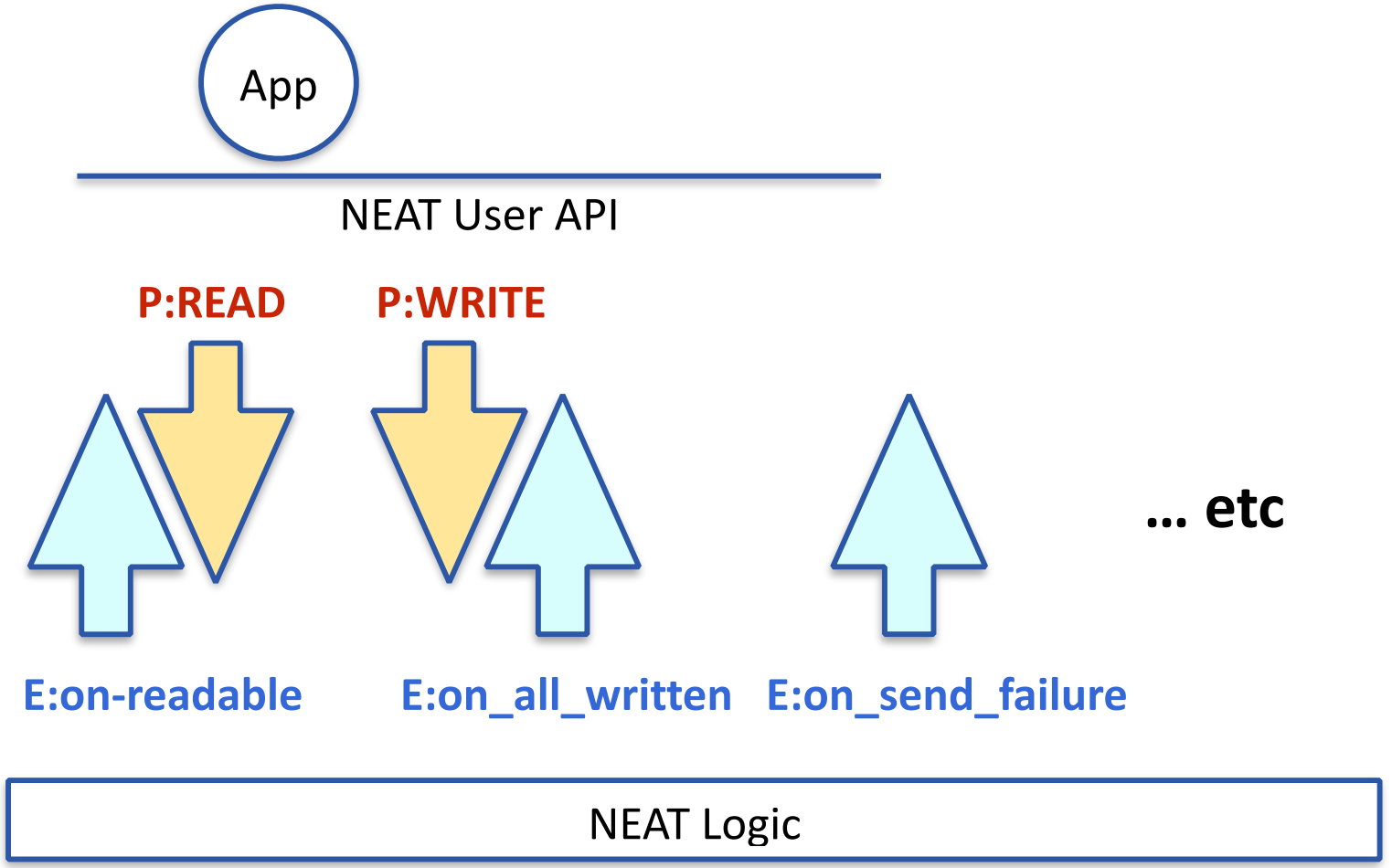
NEAT User API: NEAT Flow Endpoint



NEAT User API: NEAT Flow Endpoint



NEAT User API: Callback-based



Expects an event-loop to read/write data

Next Steps

- Please use/play with our running code and our example apps…
- Rev -01 - minor fixes that did not make -00
- What does the WG see happening next?

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