

Synthetic Network

Dogs and fiber

Motivational demo

Synthetic network in a container

Clone [daily-co/synthetic-network \(github.com\)](https://github.com/daily-co/synthetic-network)

```
$ make run-chrome
```

...



Point your VNC client at localhost:5901

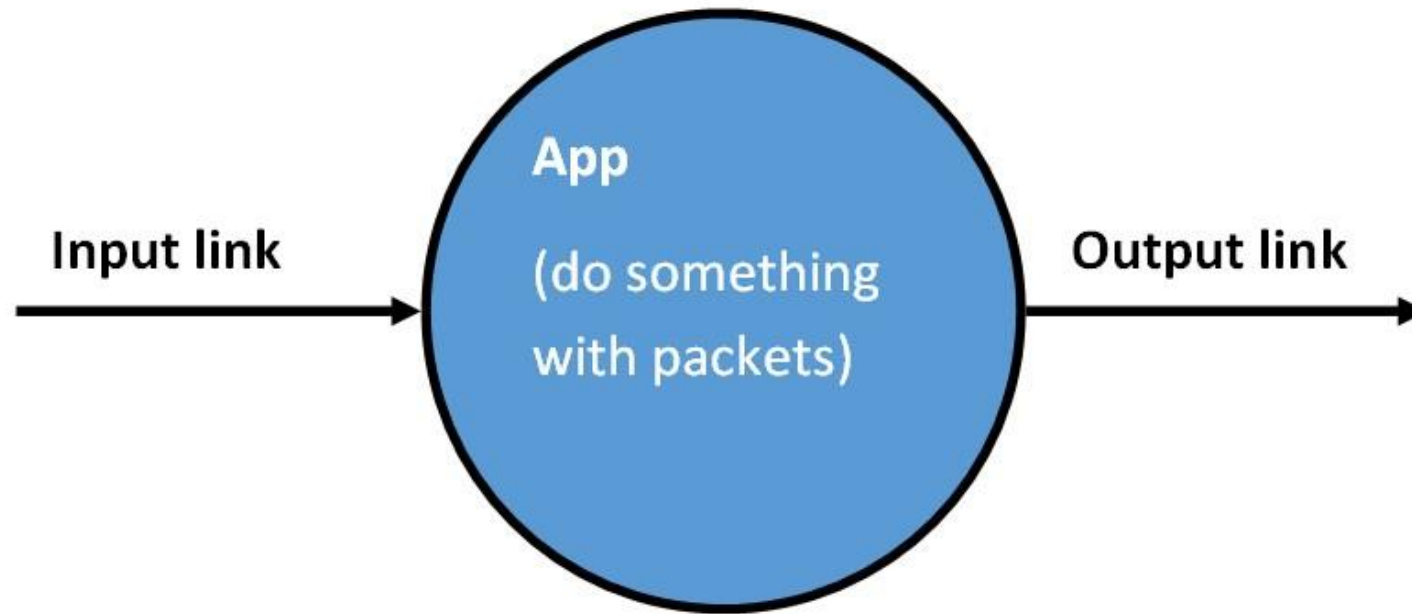
...

Rush

- Write programs that manipulate Ethernet packets (Layer 2)
 - In Userspace! Using Rust!
1. Grab packets off a Linux interface (`socket(2)`, `AF_PACKET`, `SOCK_RAW`, `SOCK_NONBLOCK`, `ETH_P_ALL`)
 2. ???
 3. Inject packets back into Linux interface (profit)

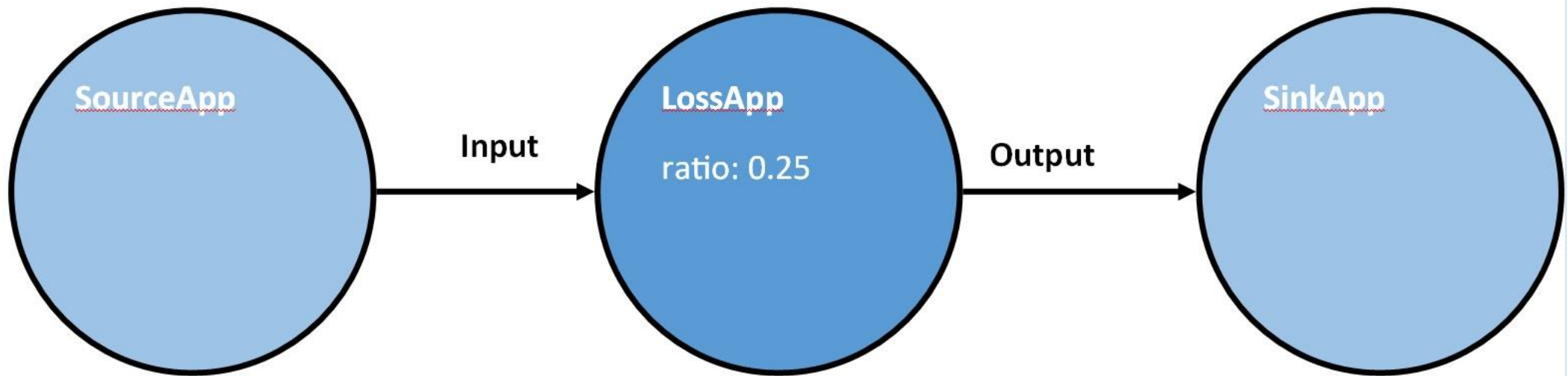
Docs at [synthetic-network/doc](https://synthetic-network.github.io/doc)

Unit of composition

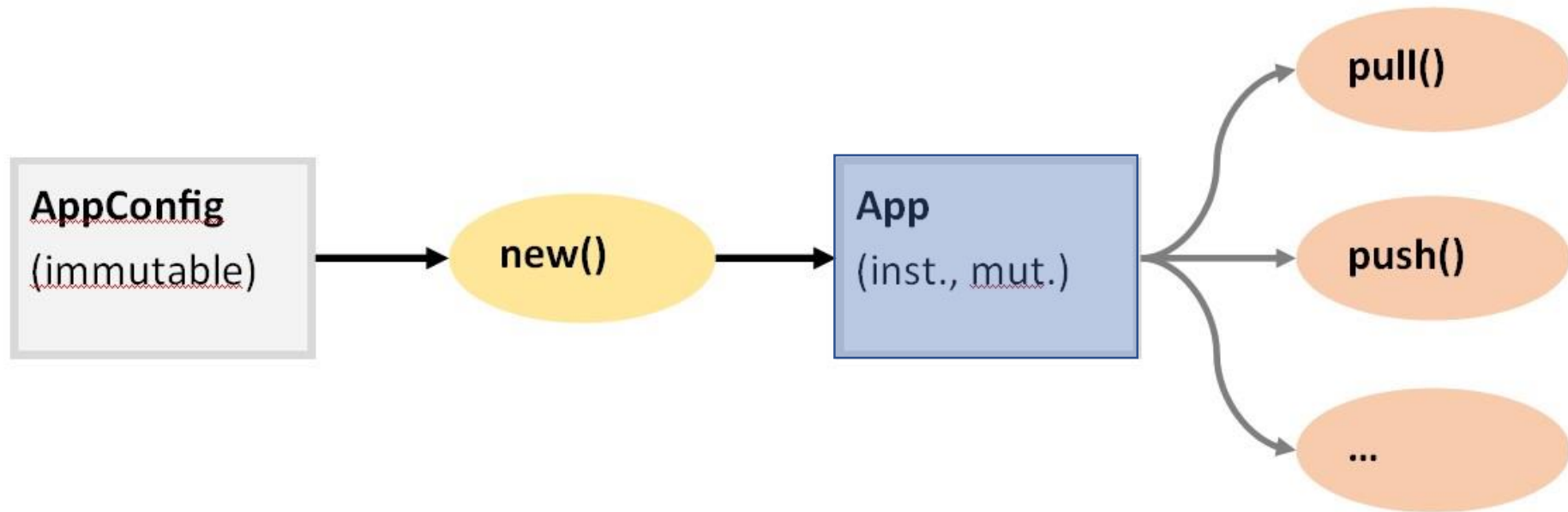


A simple application

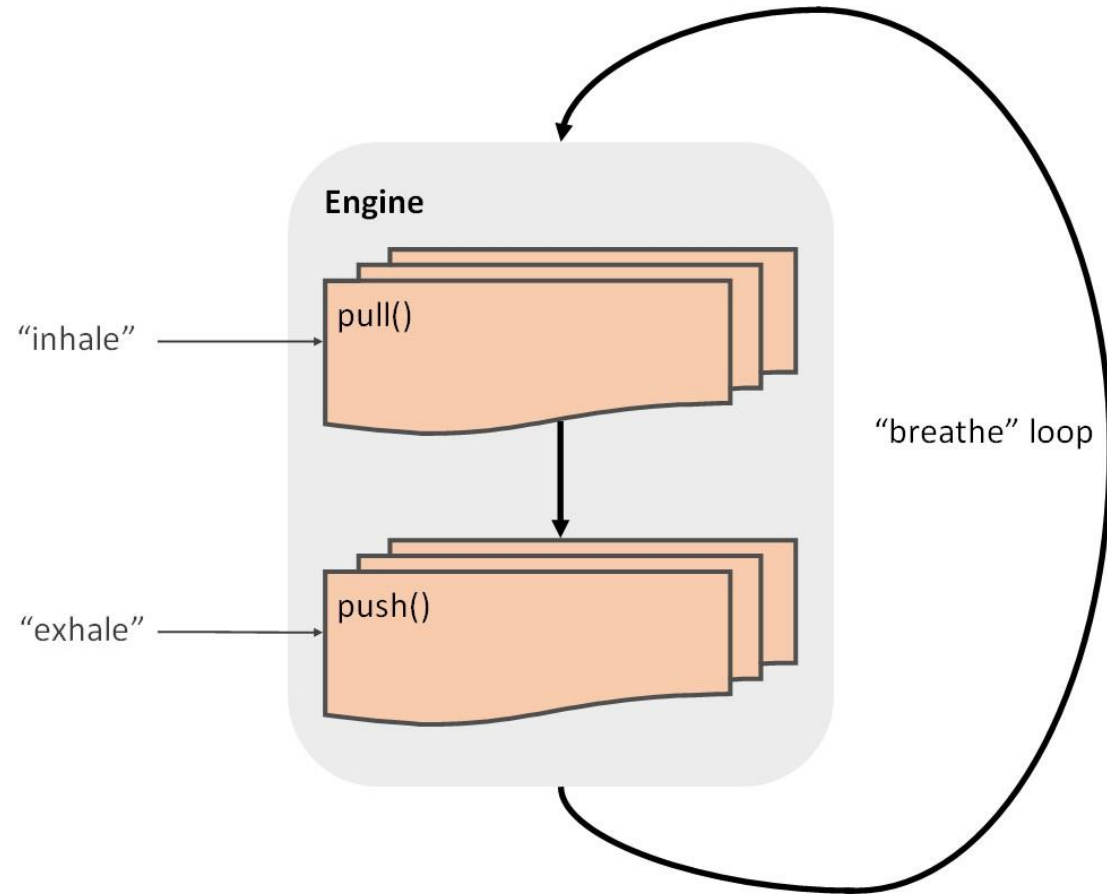
(actually, a real world “unit test”)



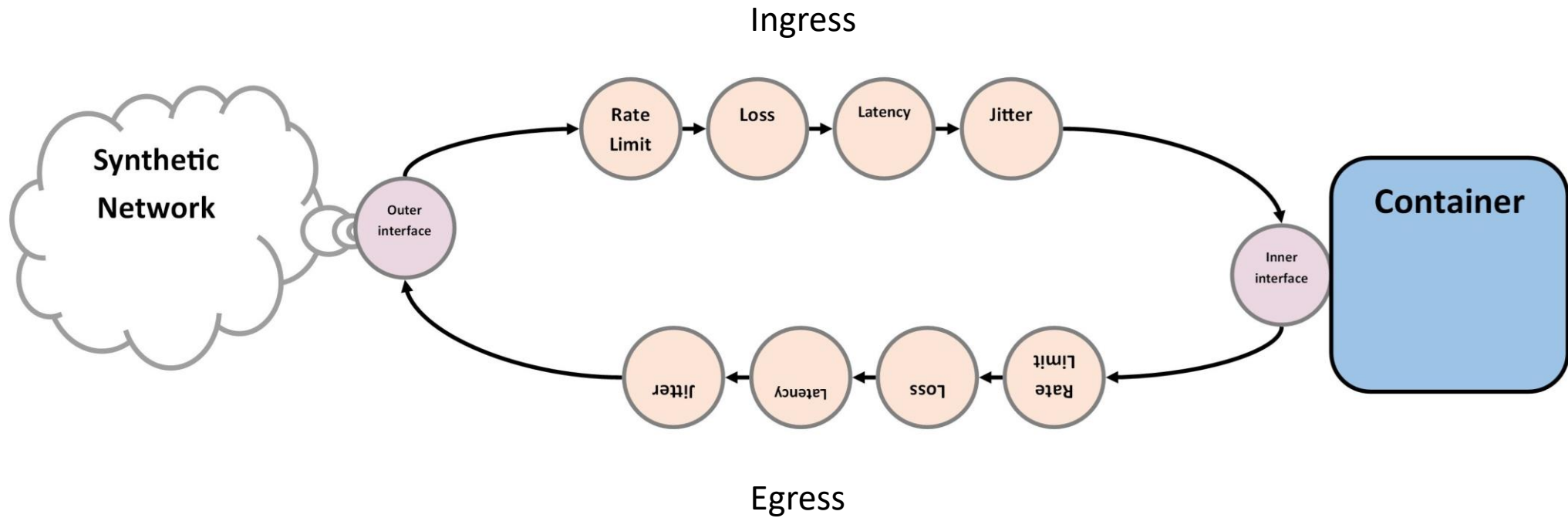
Engine (configuration)



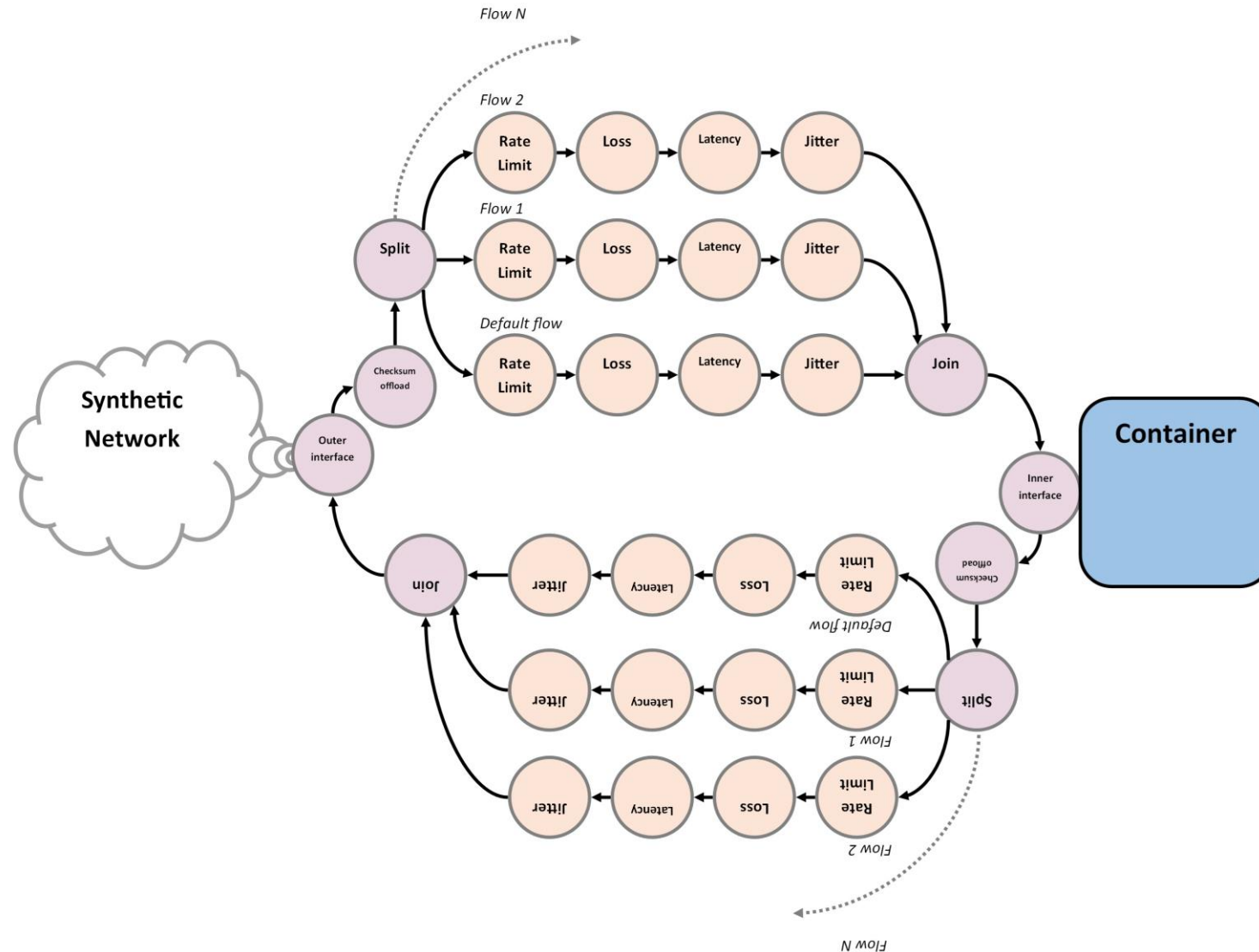
Engine (yoga)



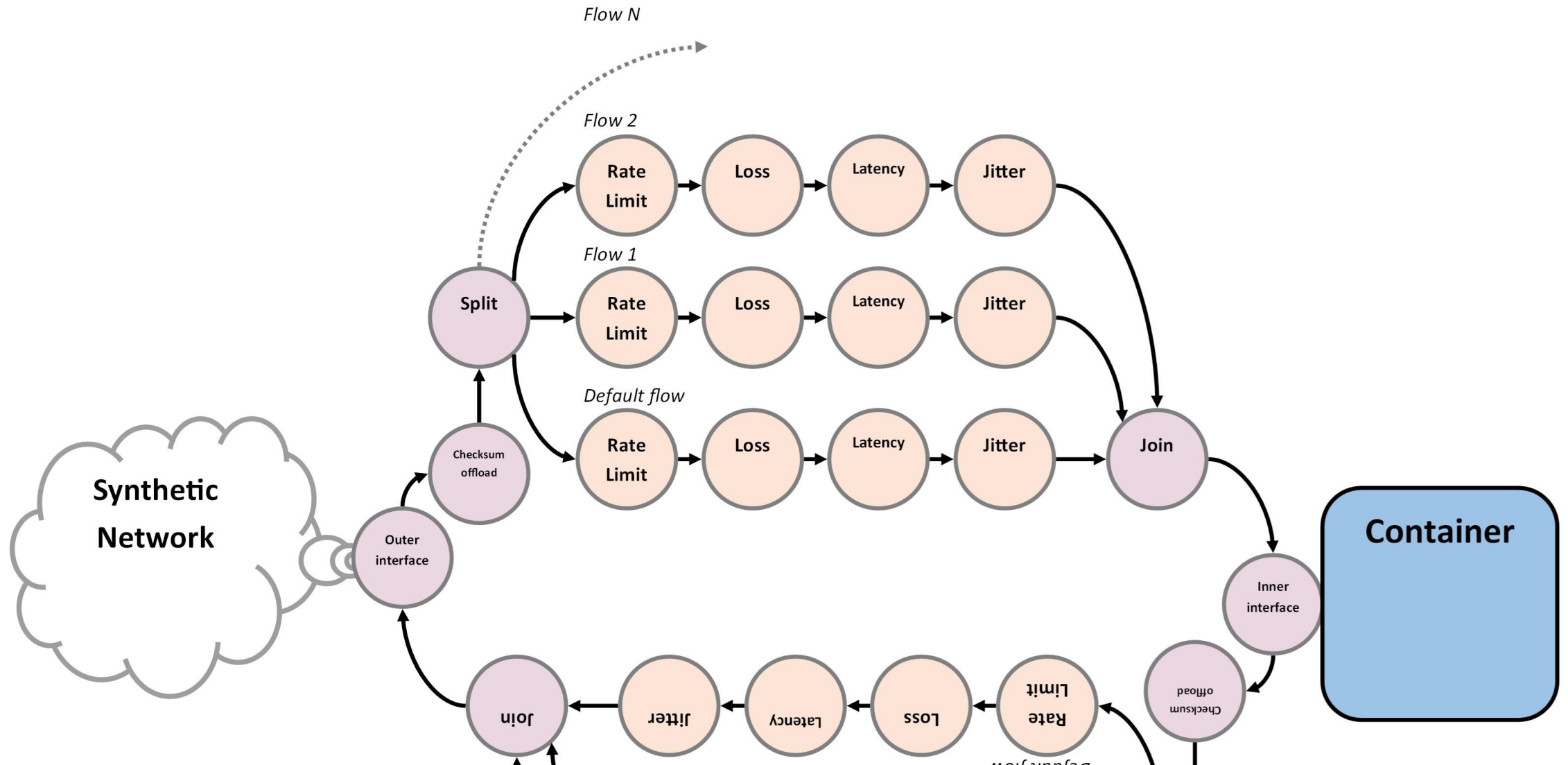
Synthetic Network MVP



Synthetic Network (now with flows)



Synthetic Network (now with flows)



What's next

- Docker Compose recipe to bring up a full daily stack (SFU, ..., multiple clients) at version XYZ with synthetic network
- Scripting the synthetic network conditions (programmatically)
- Automated integration tests that simulate dogs chewing on fiber