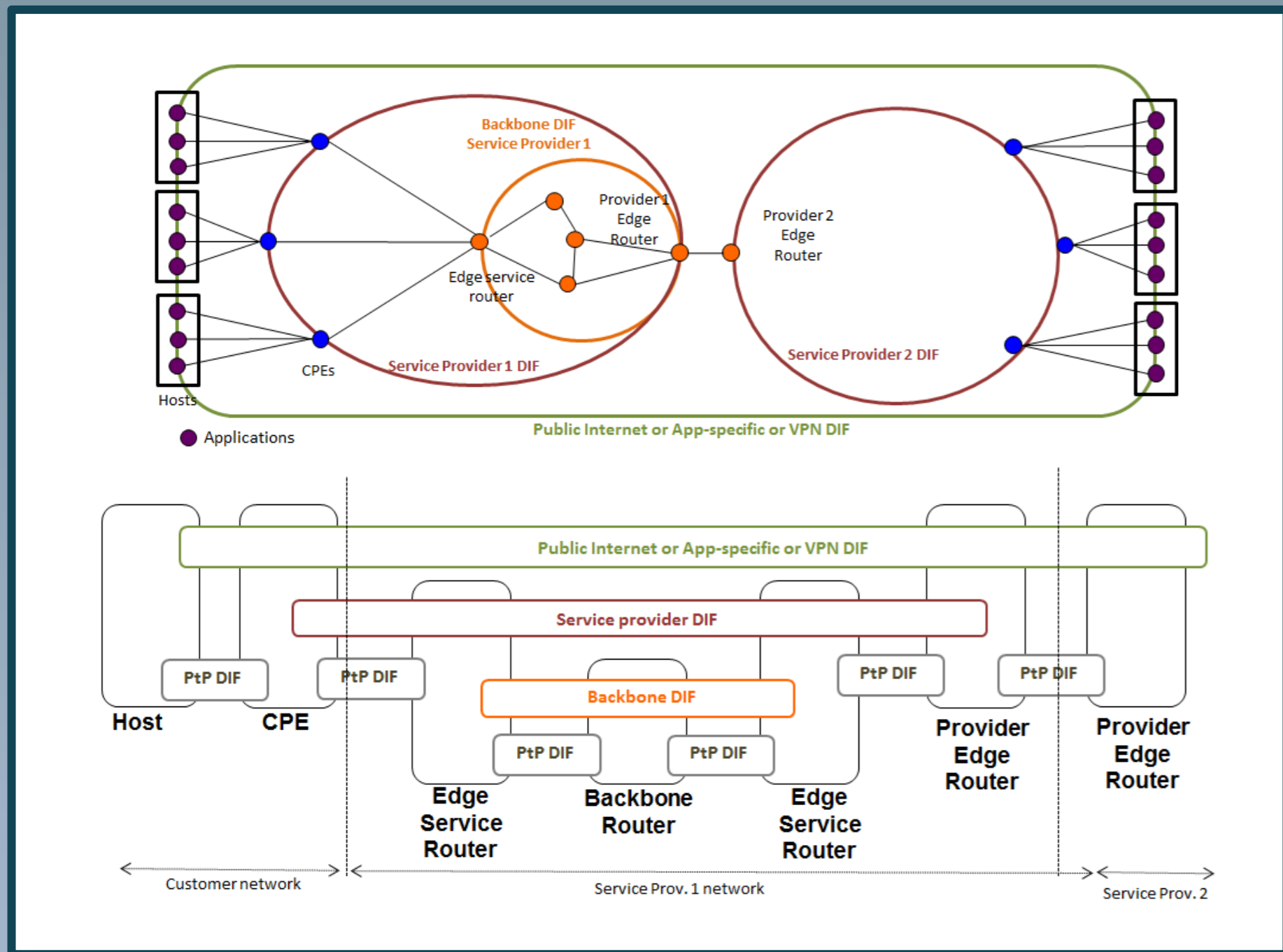


A python library for automation of large scale RINA experiments on FIRE+

From a RINA idea

Via experiment description



pip install rumba

```
from rumba.model import *
import rumba.testbeds.jfed as jfed
import rumba.prototypes.irati as irati

n1 = NormalDIF("n1", policies = {"rmt.pff": "lfa",
                                "security-manager": "passwd"})
e1 = ShimEthDIF("e1")

a = Node("a", difs = [n1, e1], dif_registrations = {n1 : [e1]})
b = Node("b", difs = [e1, n1], dif_registrations = {n1 : [e1]})

tb = jfed.Testbed(exp_name = "fooexp",
                  username = "baruser",
                  cert_file = "cert.pem")

exp = irati.Experiment(tb, nodes = [a, b])

exp.swap_in()
exp.bootstrap_prototype()
```



DEFINE

- Nodes, Layers
- Target testbed
- RINA Prototype
- Storyboard [OPTIONAL]

RESERVE

- Testbed resources

RUN

- Storyboard [OPTIONAL]

BOOTSTRAP

- Experiment setup

INSTALL

- RINA prototype [OPTIONAL]

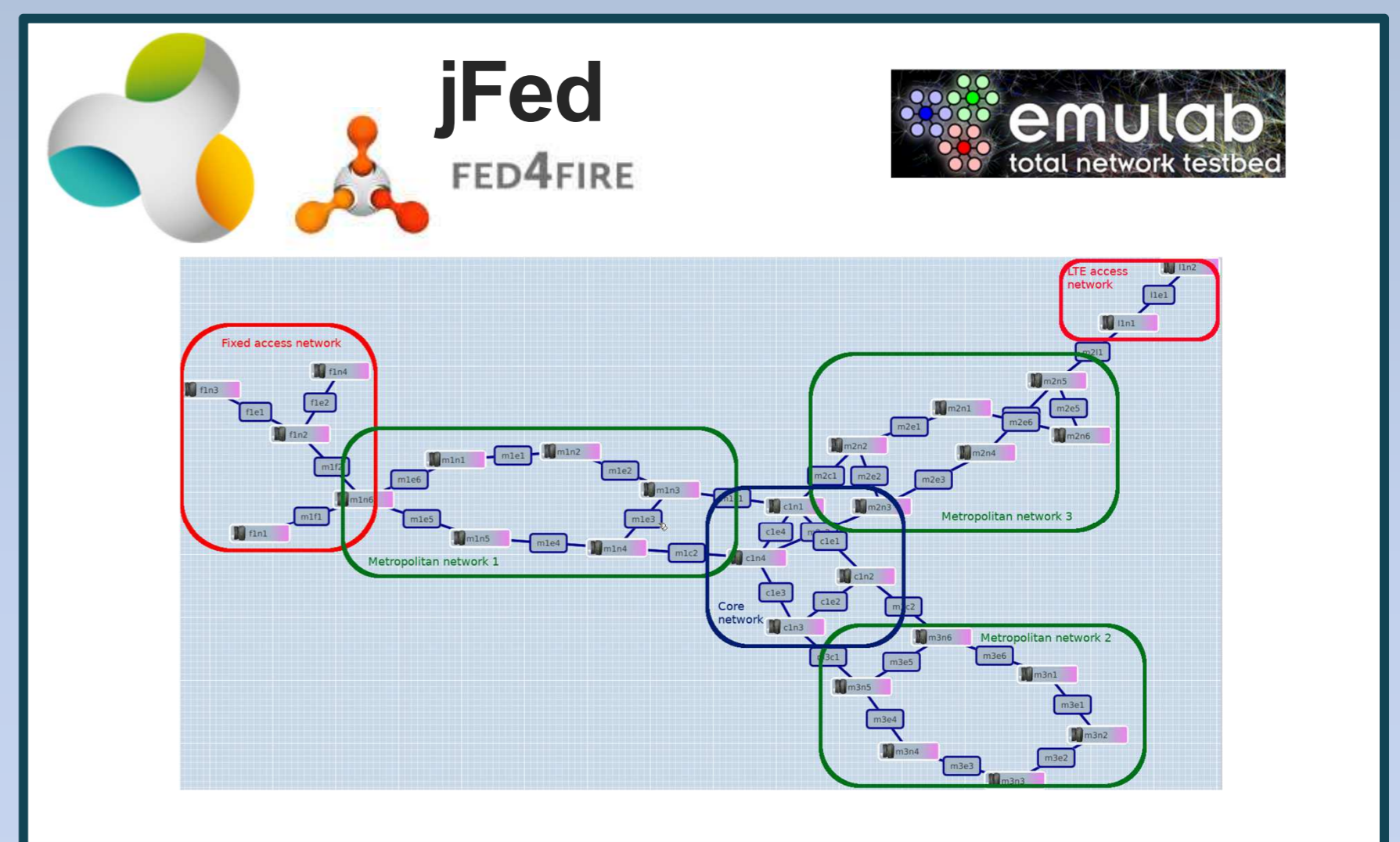
COLLECT

- Logs
- Performance data

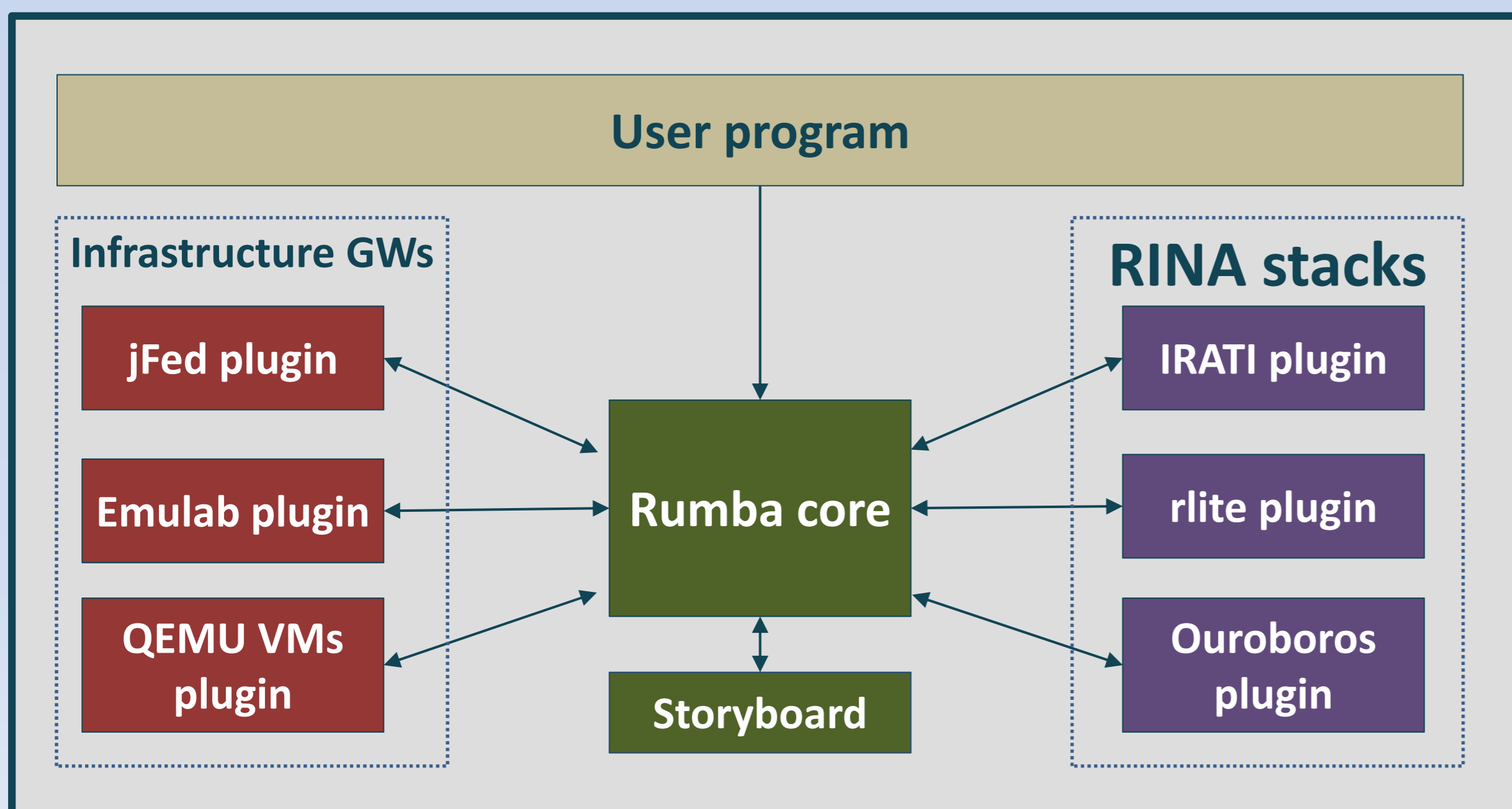
RELEASE

- Testbed resources

To automated execution



RUMBA Architecture



Topological sort to serialize actions on infrastructure and on RINA stacks

