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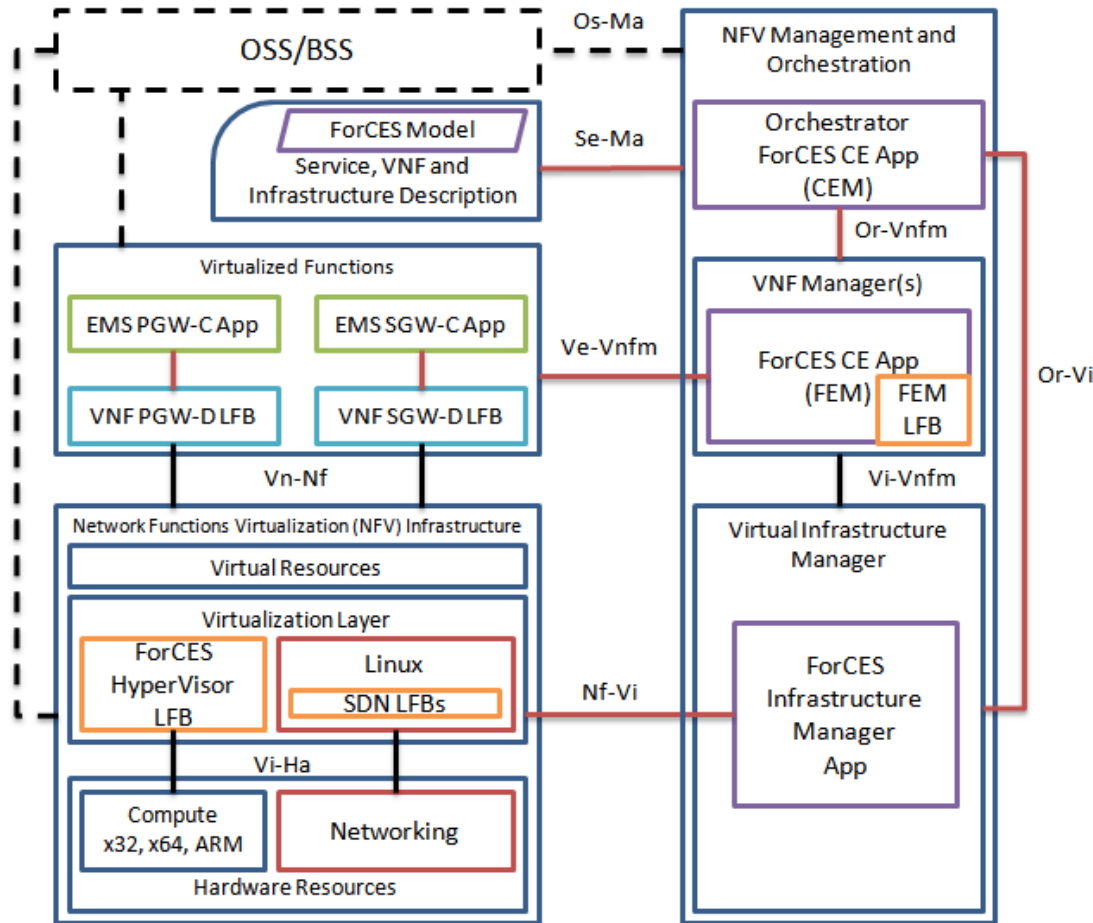
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# NFV Proof of Concept details



## Demo:

- Virtual Management Container
- Application/Datapath Functionality instantiation
- Control Virtualized Datapath Functionality to create service

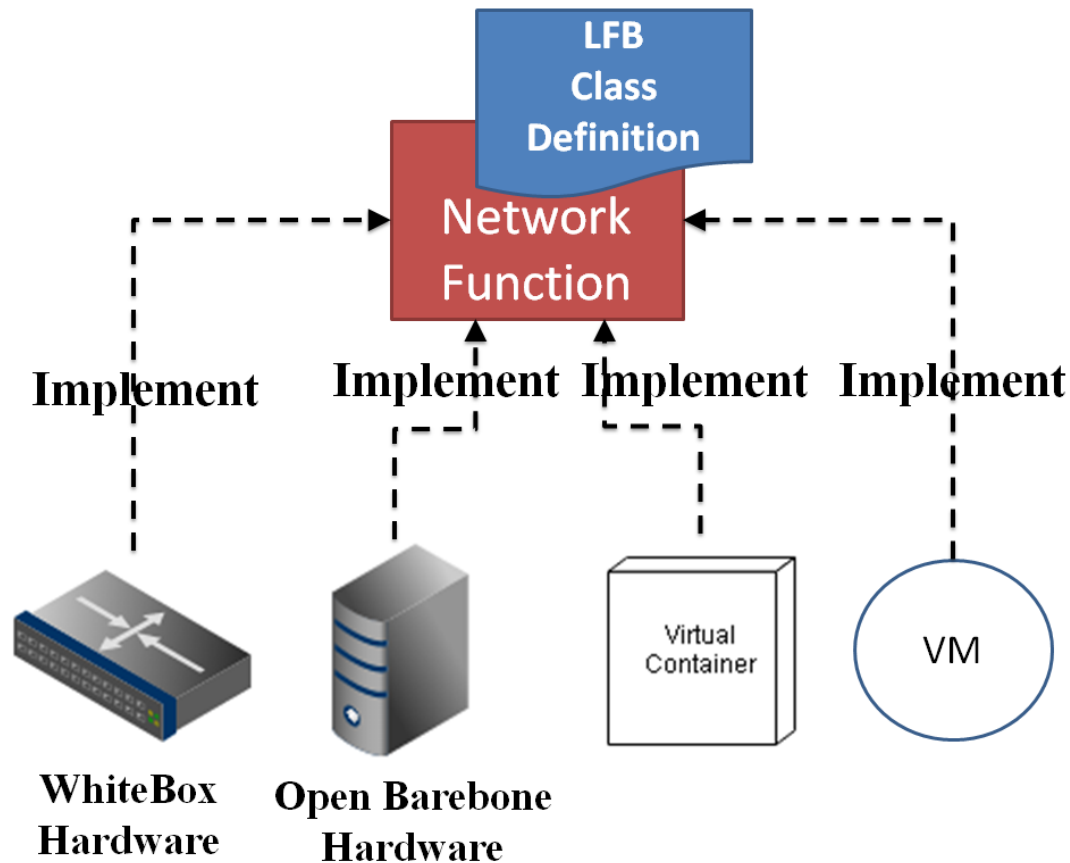
Mojatatu NetOS LFB App App LFB Cumulus Linux Networking

# Motivation (1)

- Use LFBs as a modeling language to describe all operational parameters, capabilities and notifications of resources:
  - VNFs (Operational parameters, Capabilities, Events)
  - Applications (Operational parameters, Capabilities, Events)
  - Datapath entities
  - Virtual Infrastructure
    - Virtual Containers for deploying Apps & VNFs

# Motivation (2)

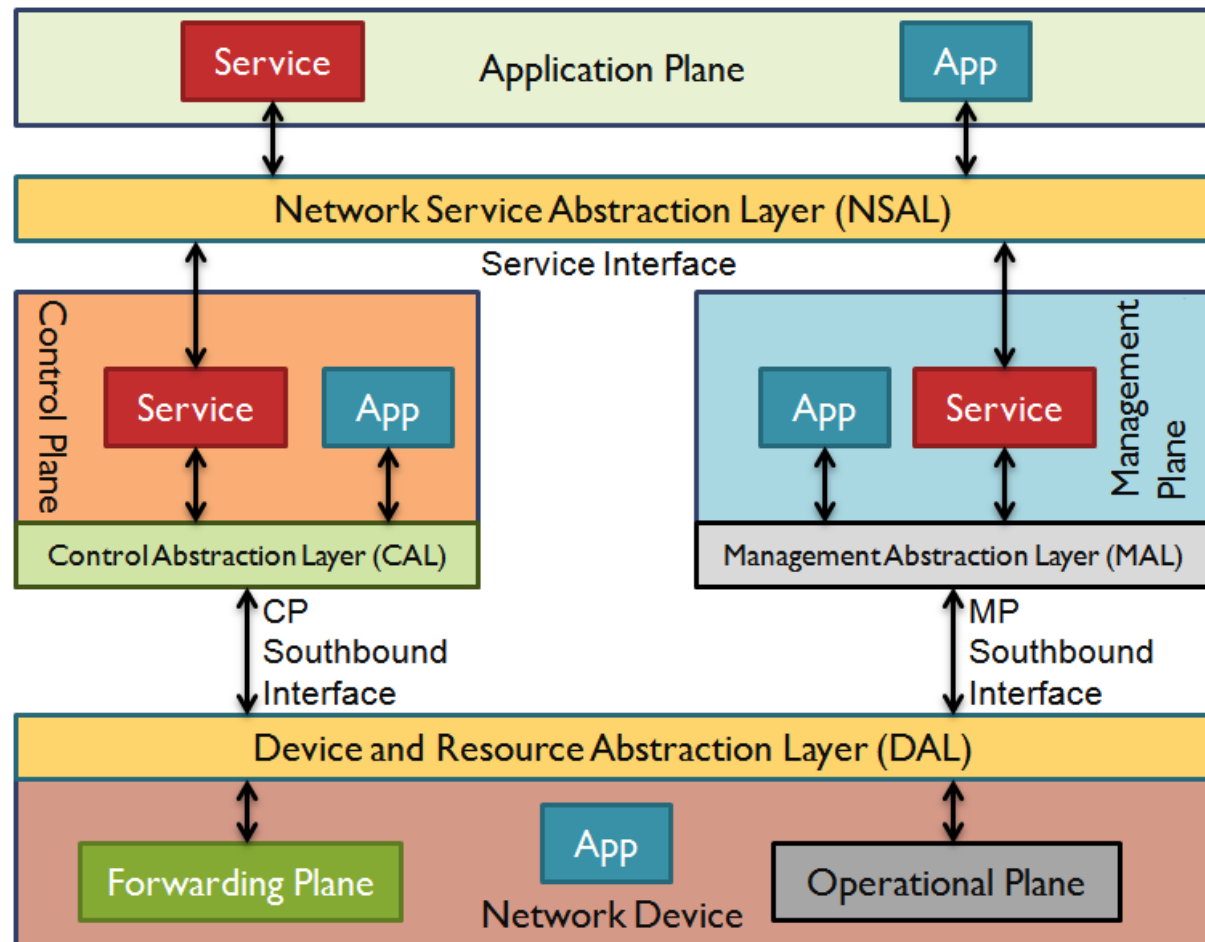
- Separate Software/Hardware



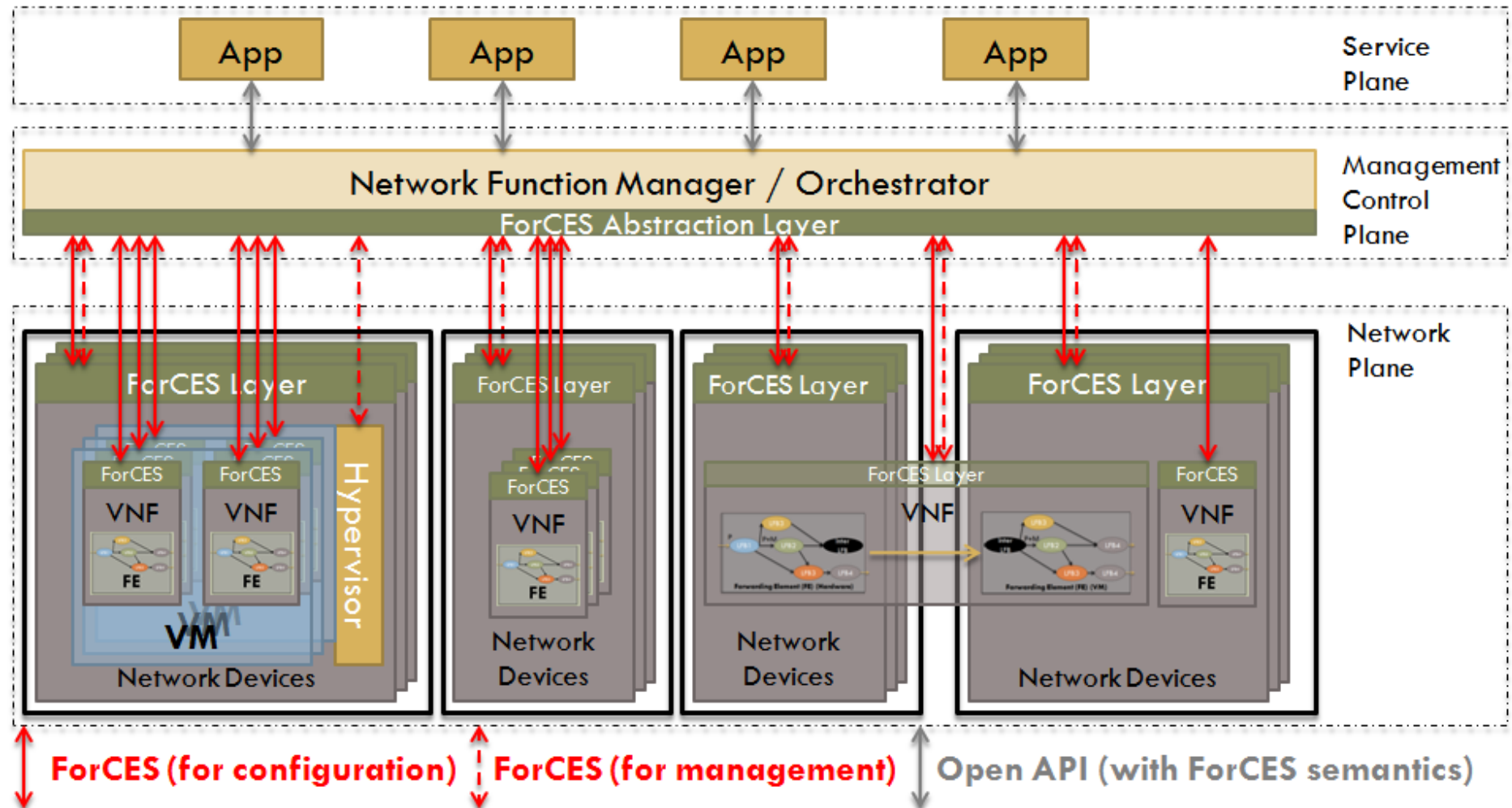
# Motivation (3)

## □ Separate Planes

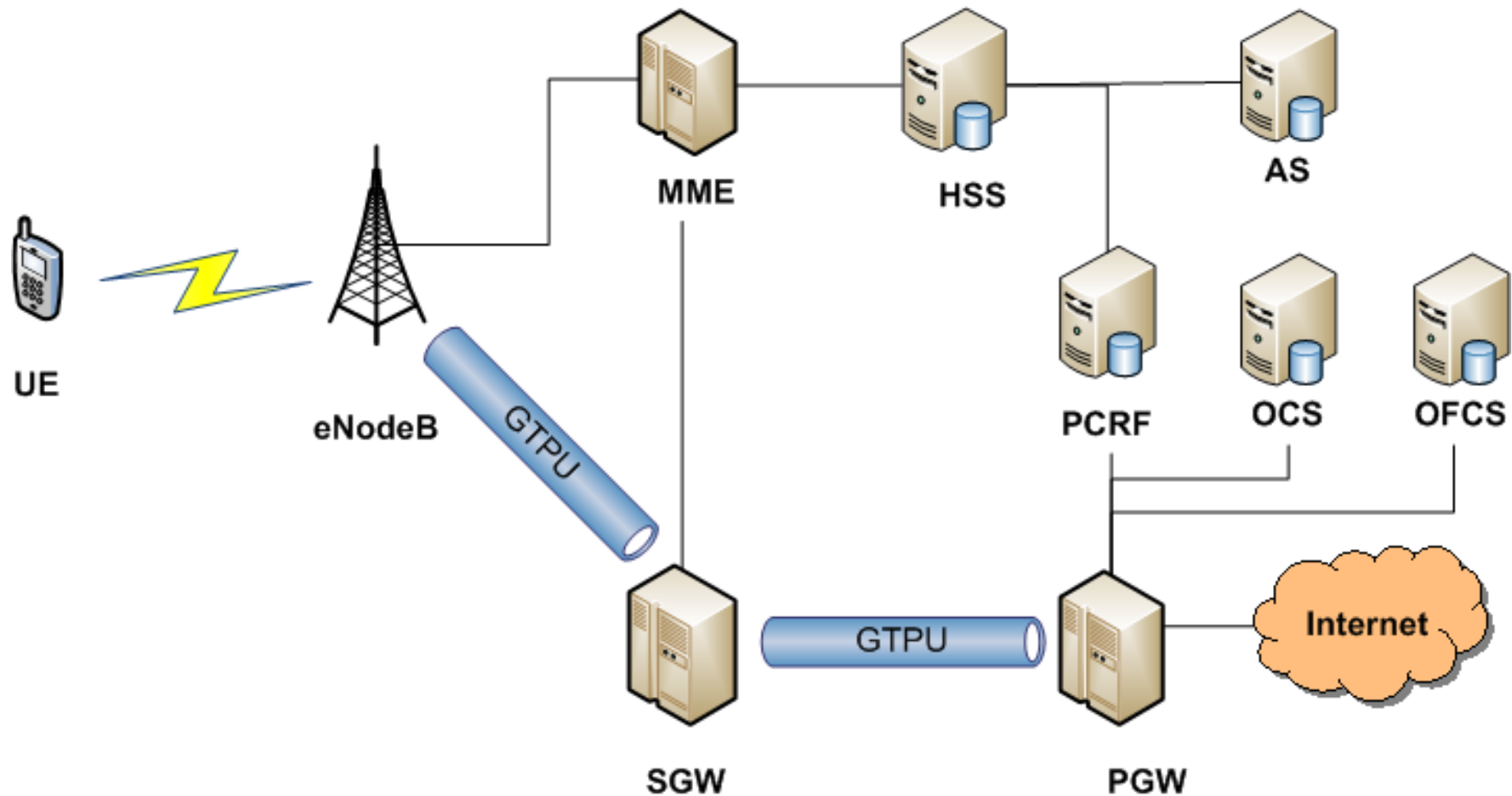
- Control
- Management
- Forwarding
- Operational



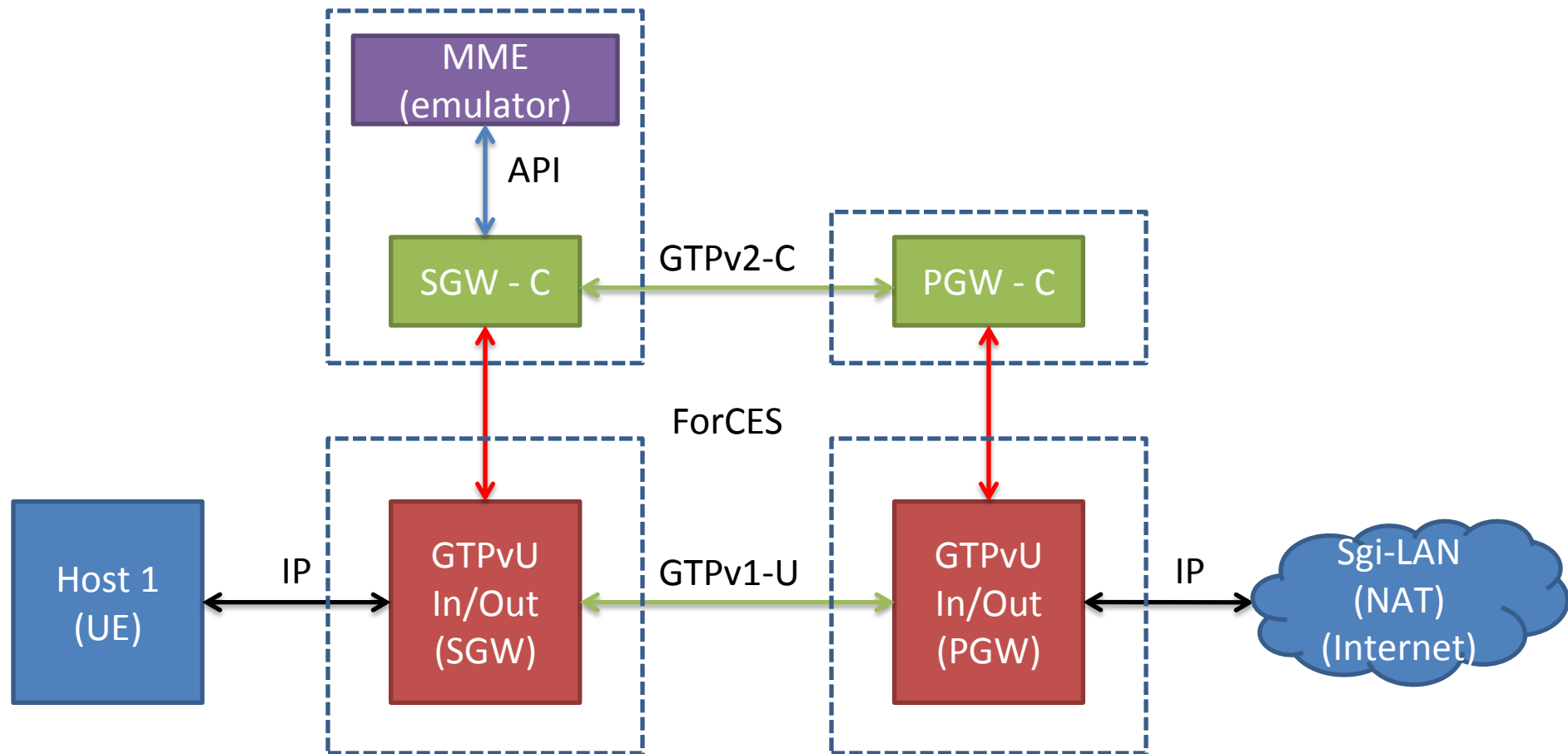
# Bigger Picture



# Our use case: LTE – Focus: PGW & SGW



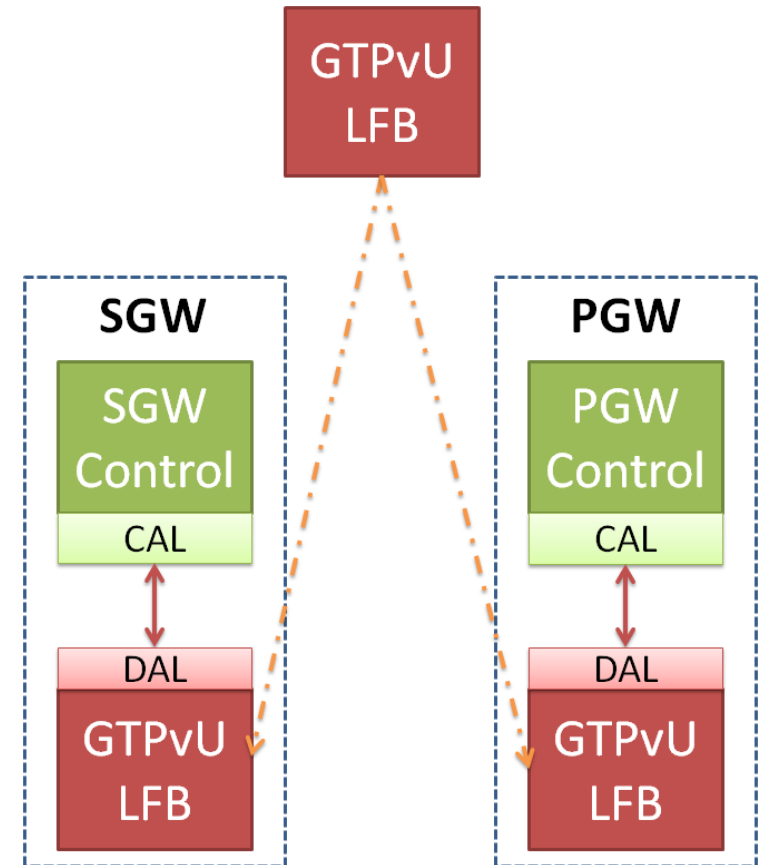
# PGW & SGW Interfaces



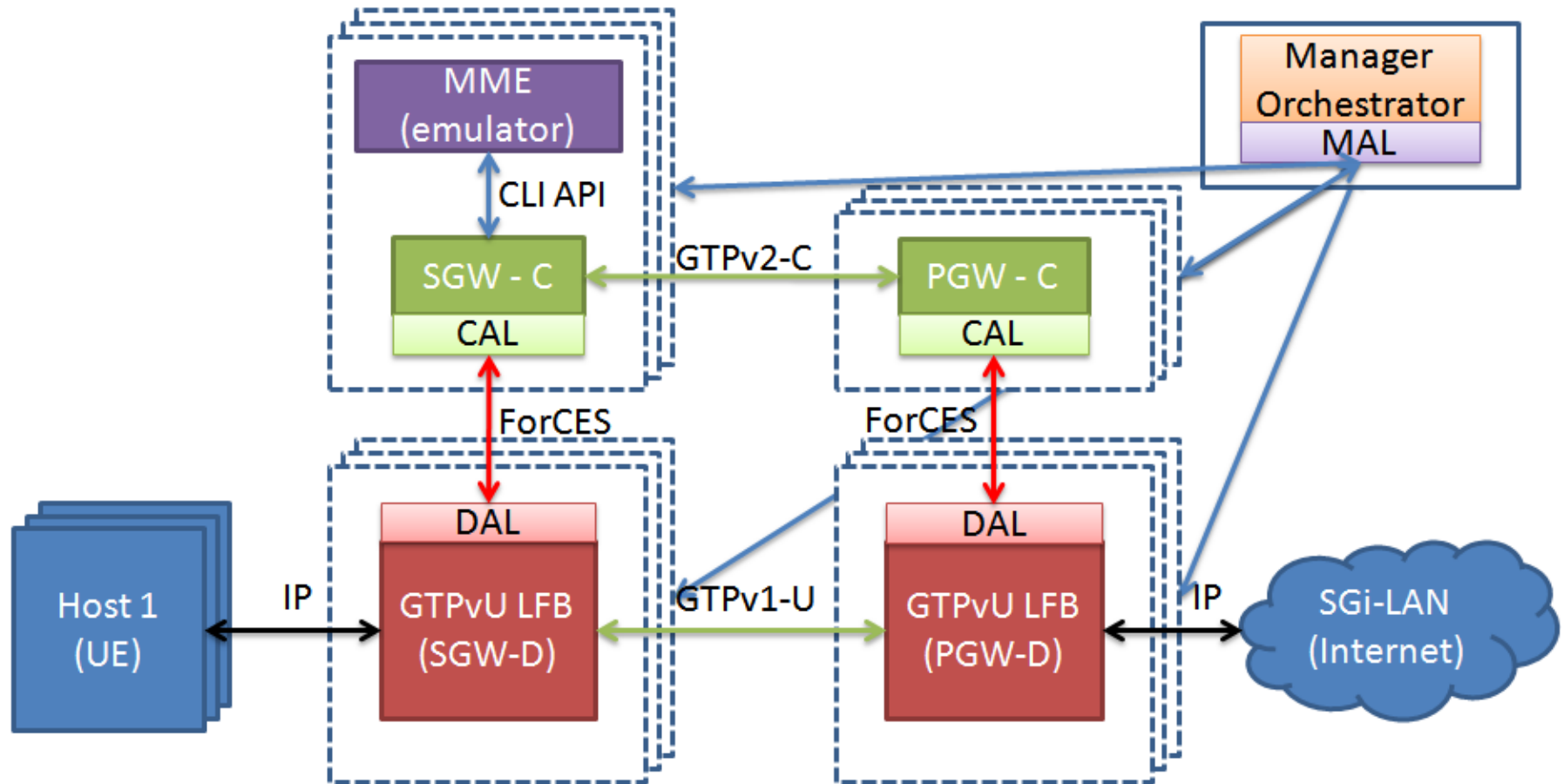


# Reusability of LFBs

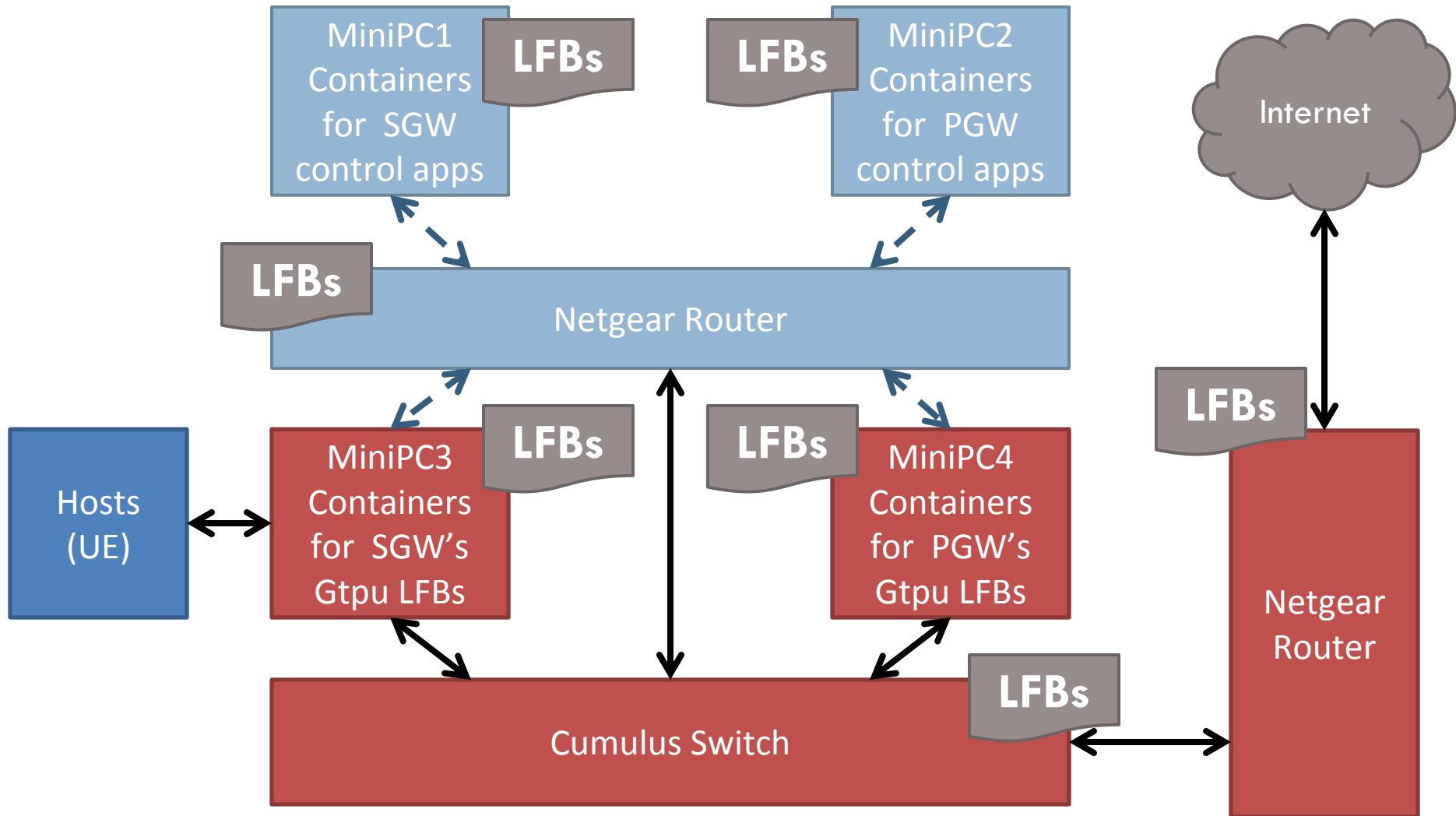
- GTPu LFB is common for SGW & PGW.
- Instantiation of GTPu and application of the respective Control Application.
- Flexibility in defining the operation of the datapath.



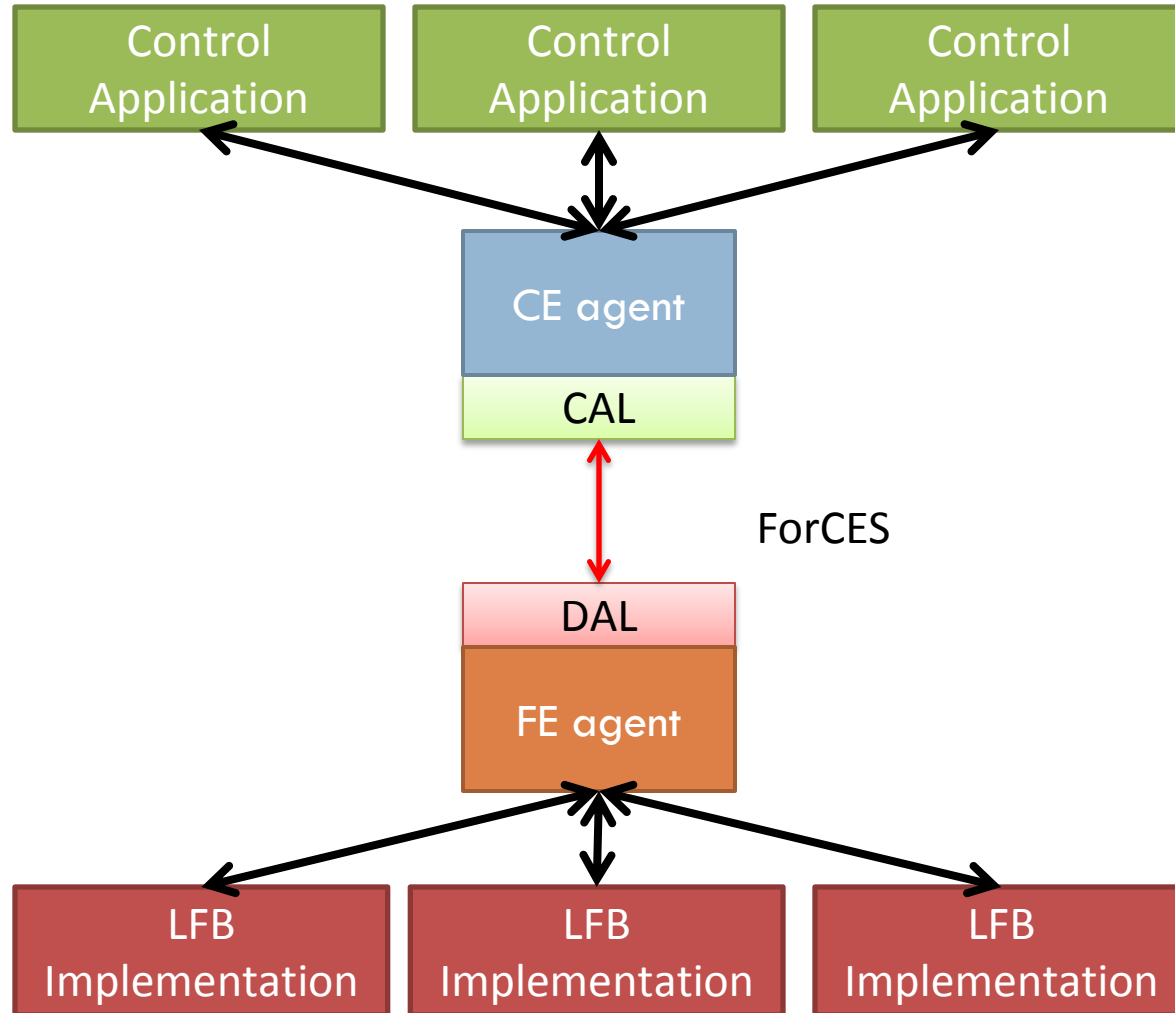
# Final Demo Logical setup



# Final Demo Physical setup



# Architecture



# Demo Sequence

1. Containers start-up (NFV)
2. Instantiate FEs and CEs
3. Instantiate GTPu LFBs, S/PGW control apps (NFV)
4. Connect LFBs and apps in a network (SDN)
5. Emulate MME to register a UE (App)
6. PGW & SGW apps control GTPu LFBs (SDN)
7. See traffic flow
8. Collect statistics
  - ▣ Per UE
  - ▣ Per UE/Flow

# Questions?

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- Thanks for watching
- See you at the Bits N Bites