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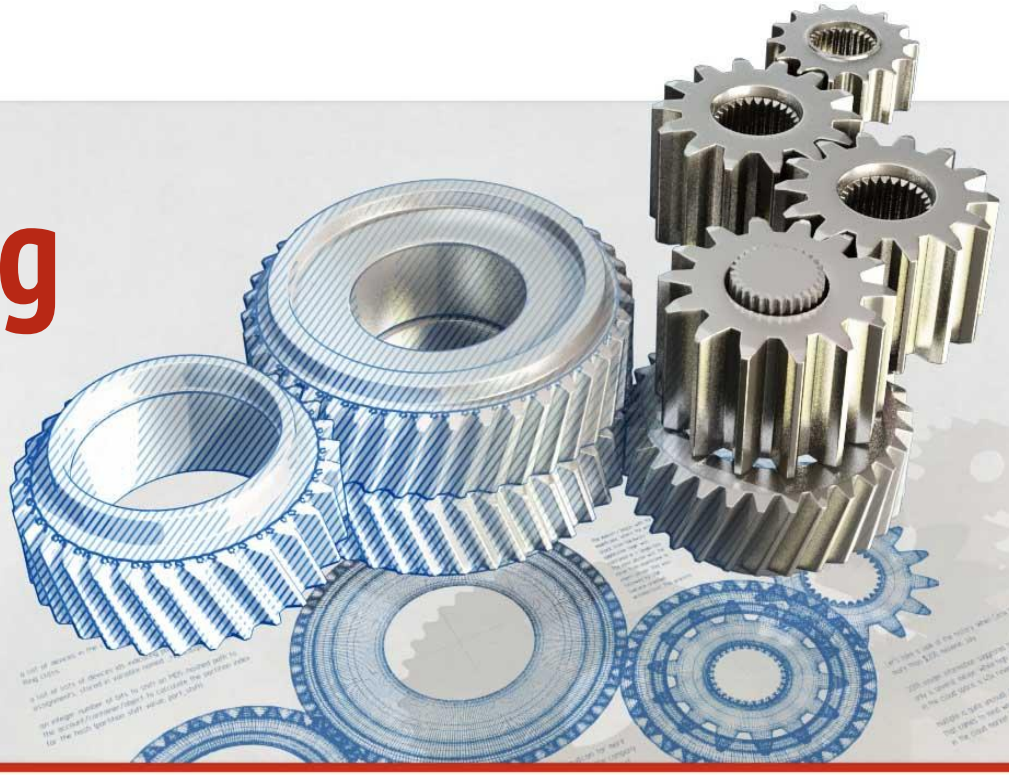
Load Balancing as-a-service



Ilya Shakhat
Eugene Nikanorov

Thanks!

Avishay, Eugene, KC, Leon, Mark, Oleg, Youcef

... and all who helped with discussions, specifications and testing

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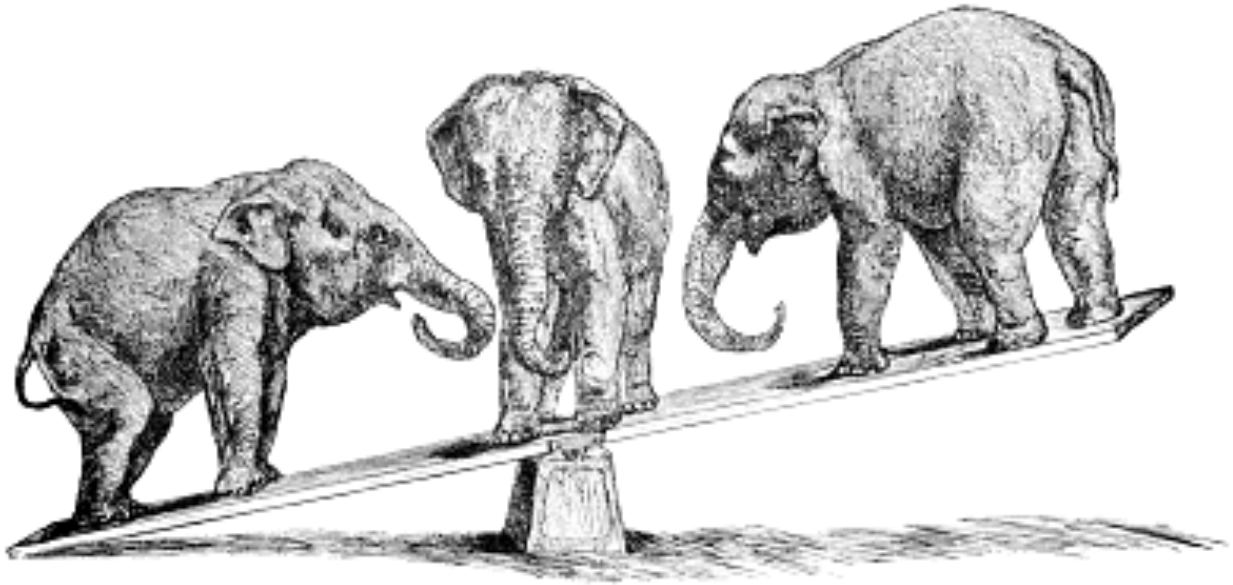
Agenda



- History
- Grizzly
  - features
  - architecture
  - workflow
- Future

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History

- Stand-alone solutions:
  - Atlas (Java)
  - Equilibrium (Python)
- In Grizzly became Quantum extension

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Features Overview

- REST API
- CLI
- UI in Horizon
- On-host HAProxy
- DevStack out-of-box support

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Load Balancing Features

- Load balancing between services on VMs
- Load balancing methods (e.g. round-robin)
- Session persistence
- Health monitoring (TCP, HTTP)
- Connection limit

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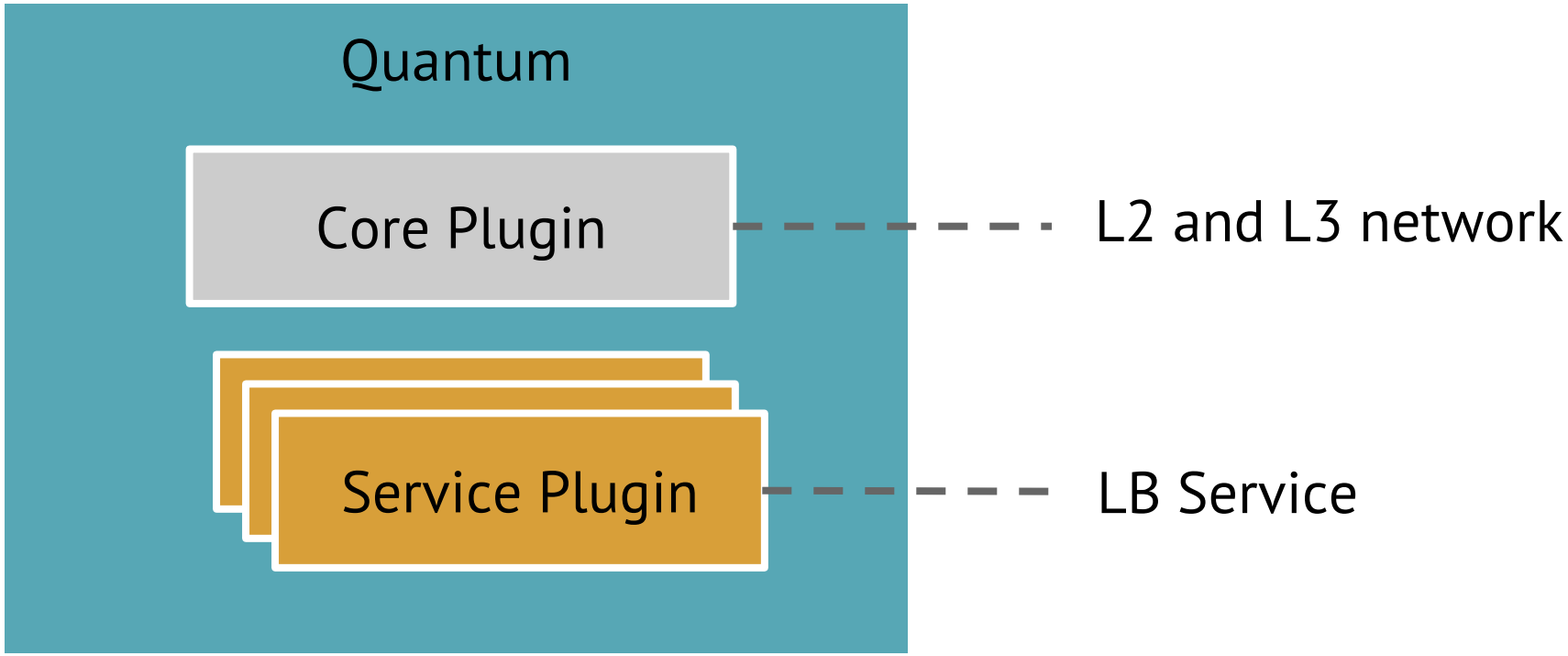
Quantum Service Plugins



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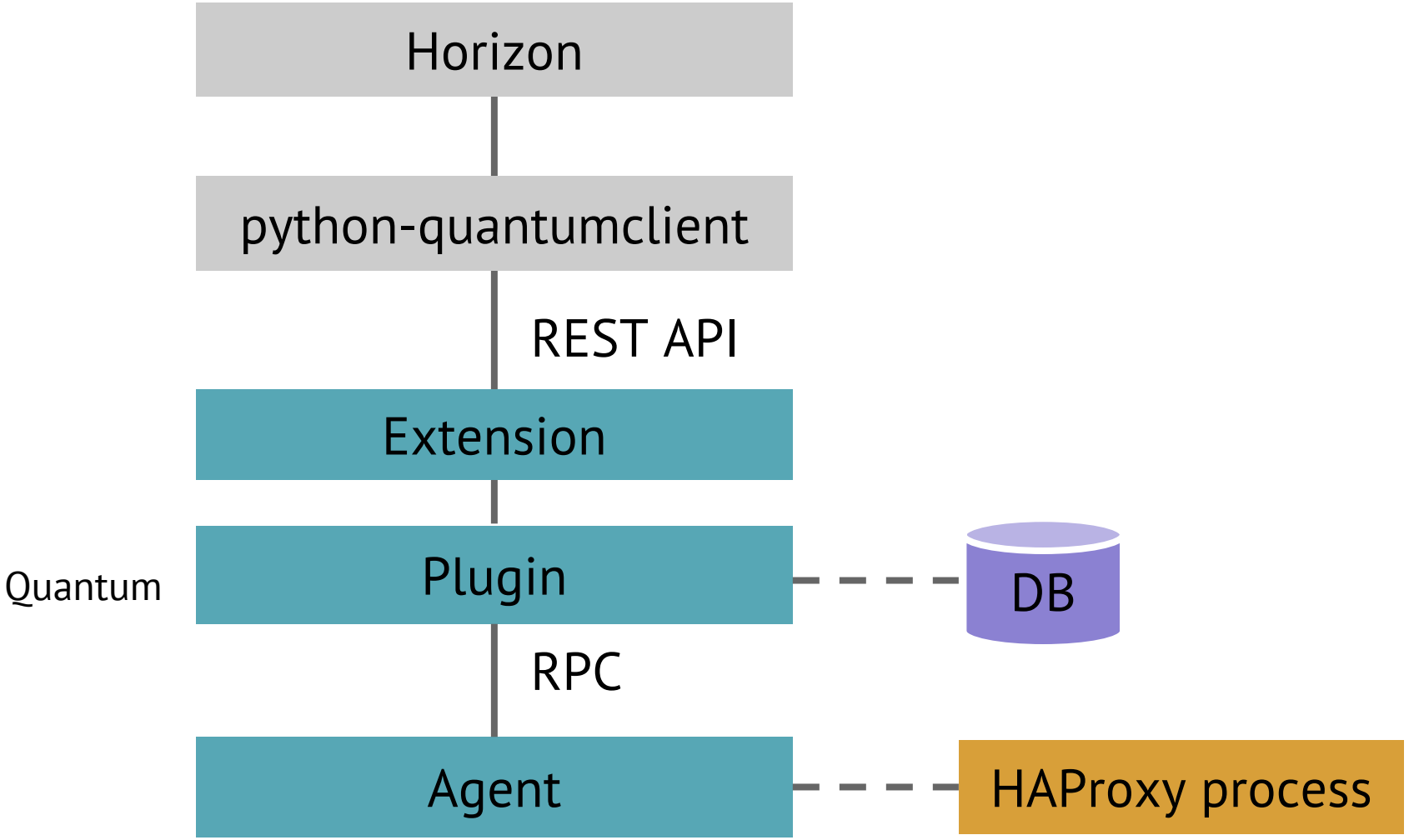
Architecture



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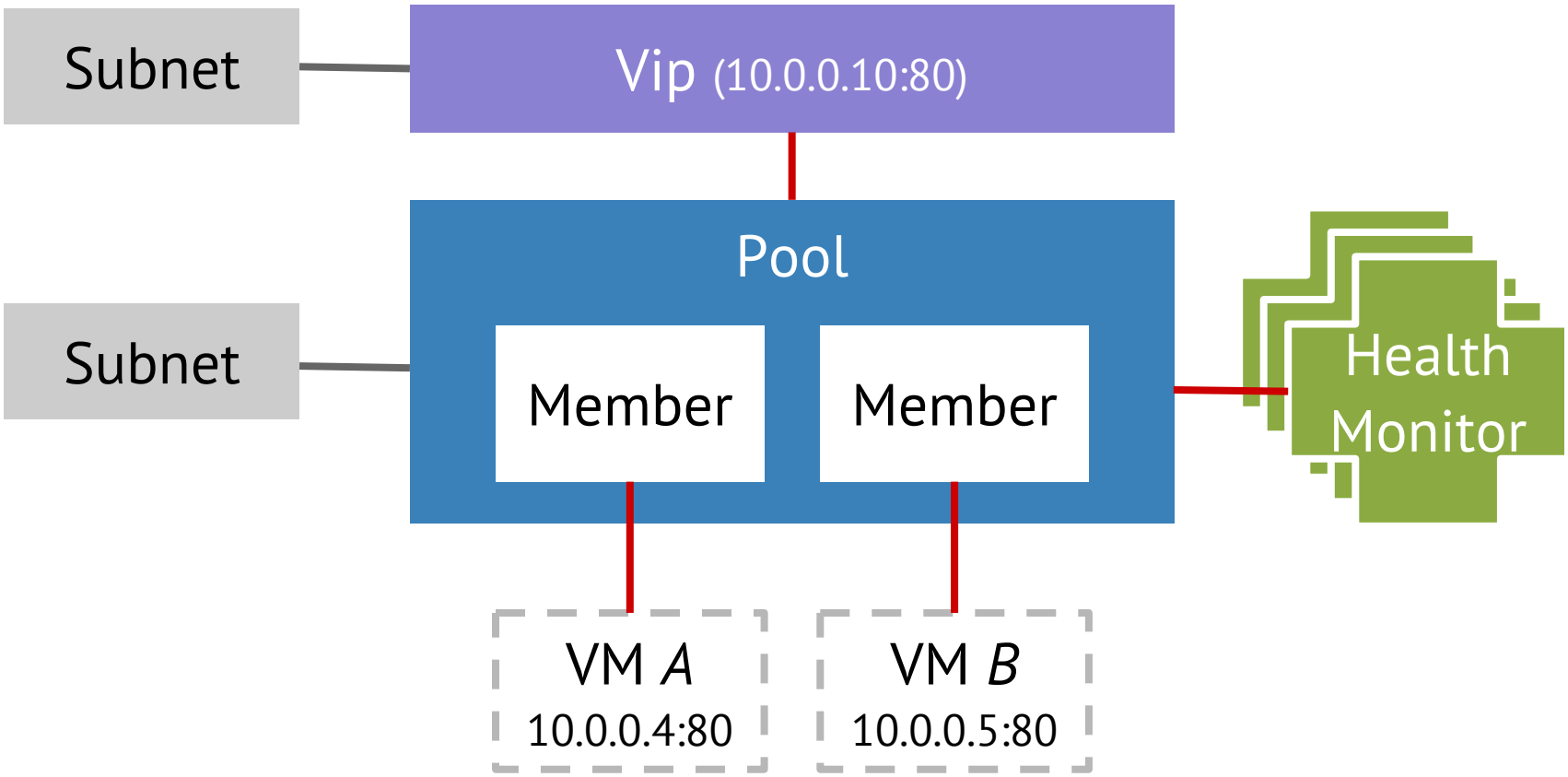
Model



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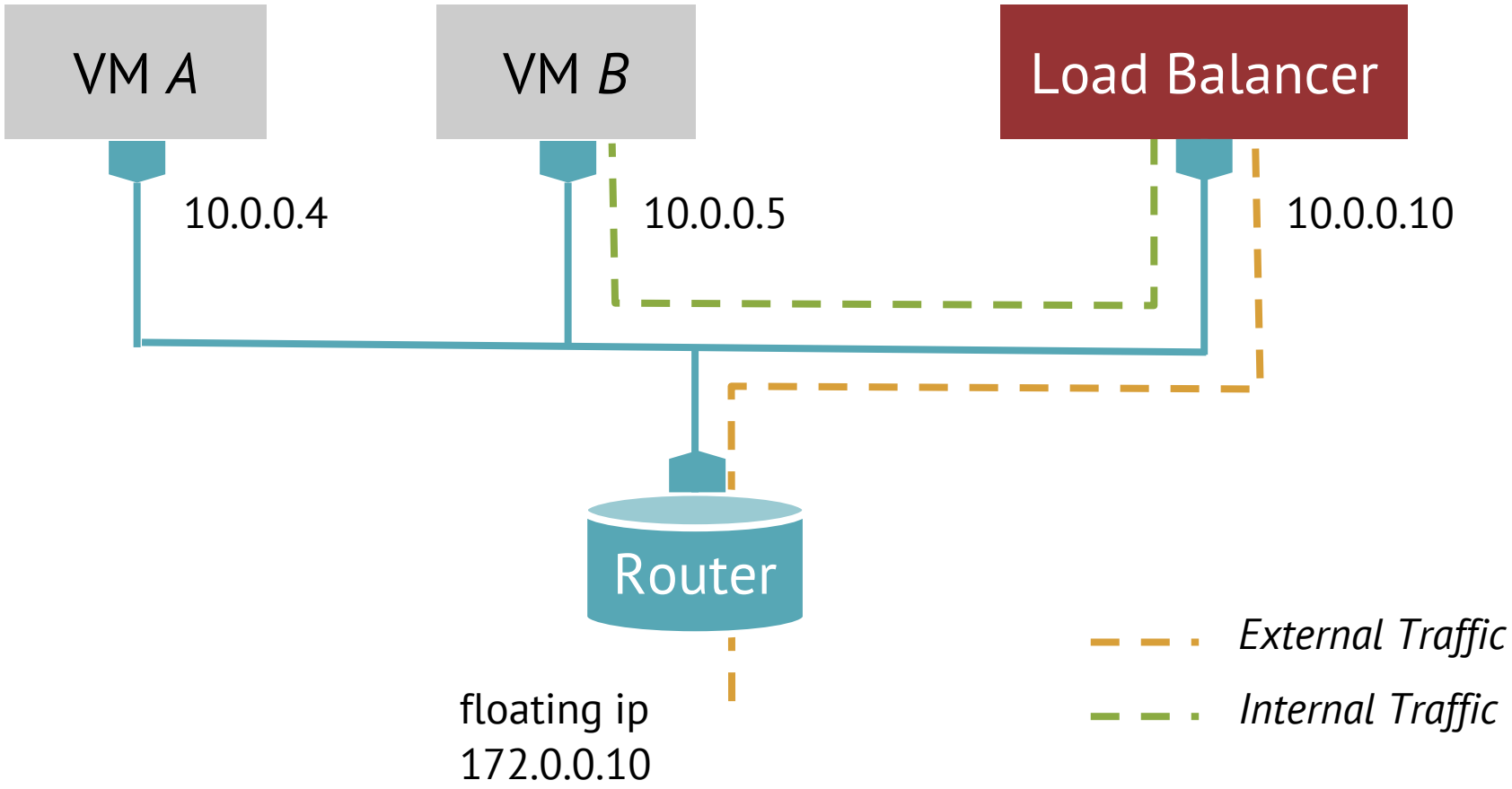
Wiring



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Workflow

1. Create pool
2. Create members (1 per VM / service)
3. Create vip for the pool
4. (opt.) Create health monitor and associate with Pool

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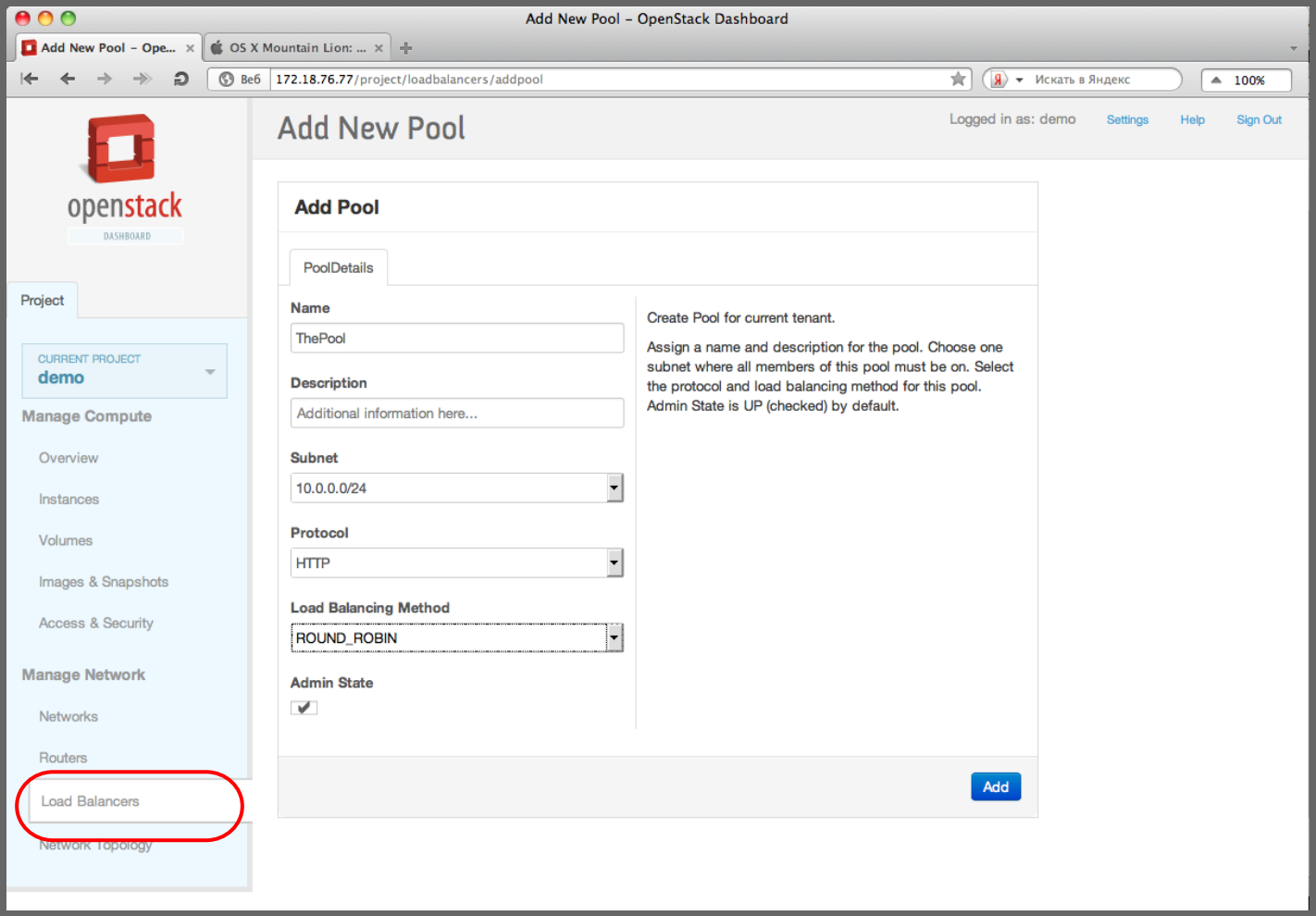
UI | Step 1



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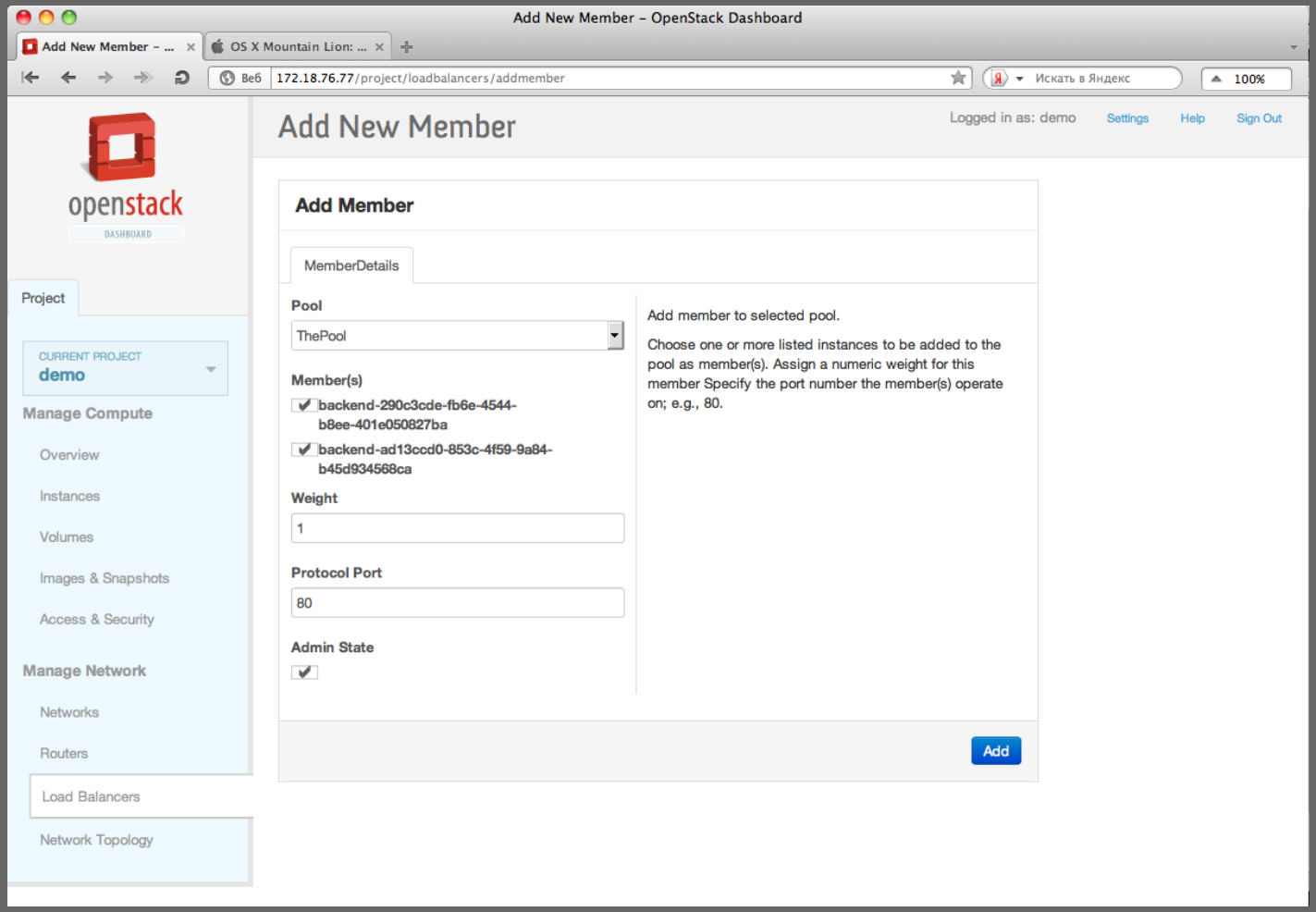
UI | Step 2



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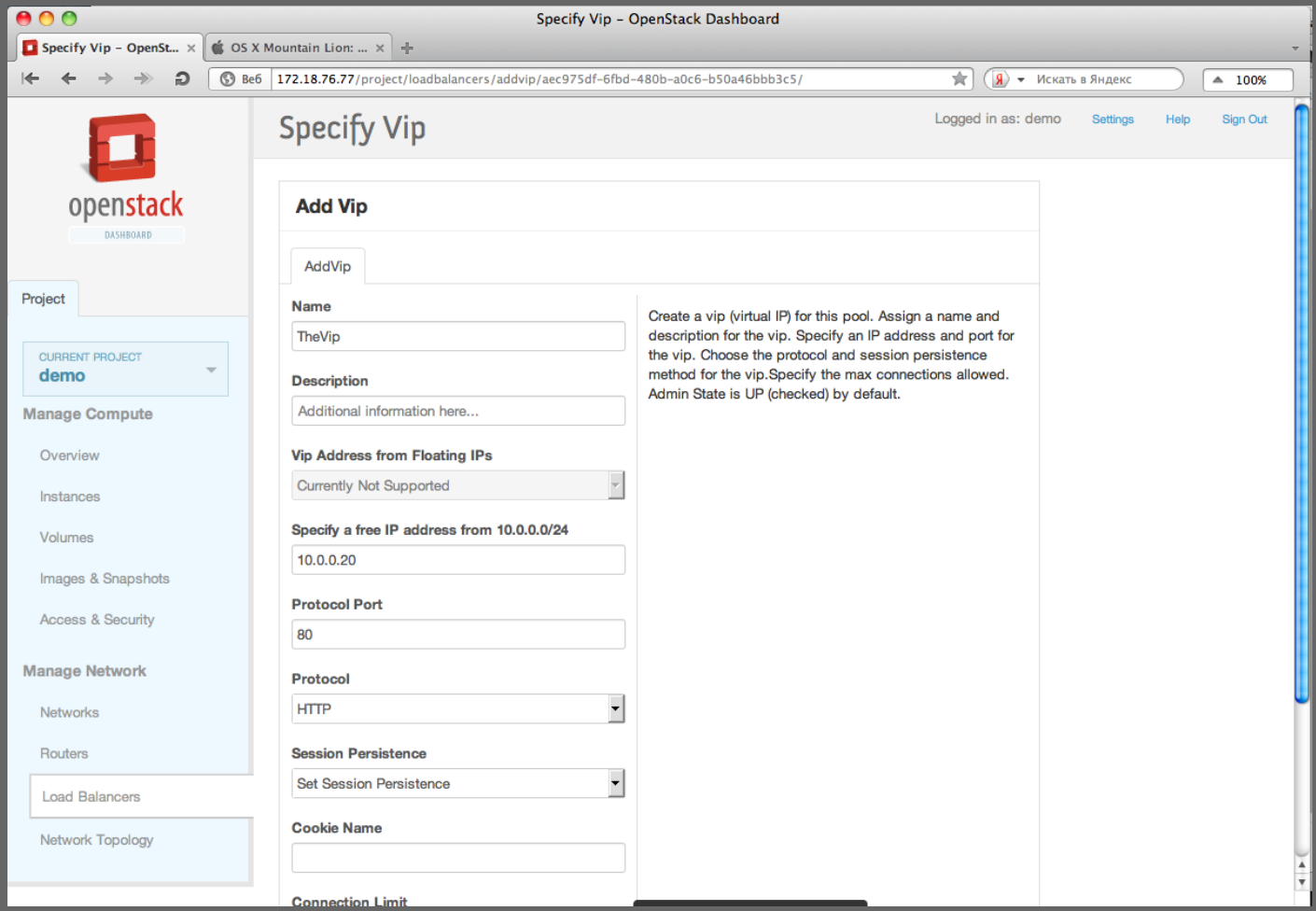
UI | Step 3



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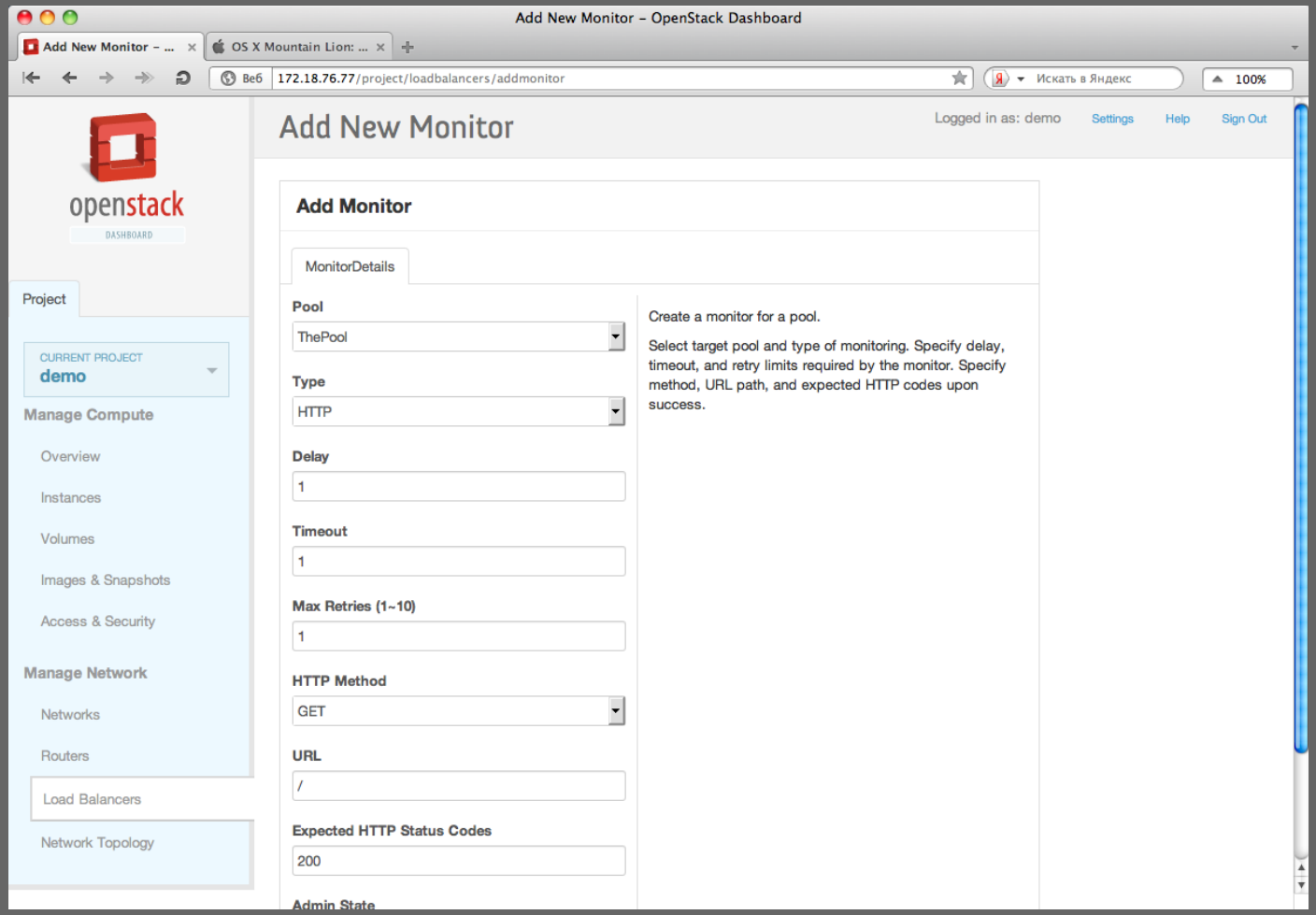
UI | Step 4



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LBaaS Next

- Support of HW / VM LBs
  - driver API
- Device Inventory
- Service insertion modes
  - routed mode
  - 1-arm
  - other modes

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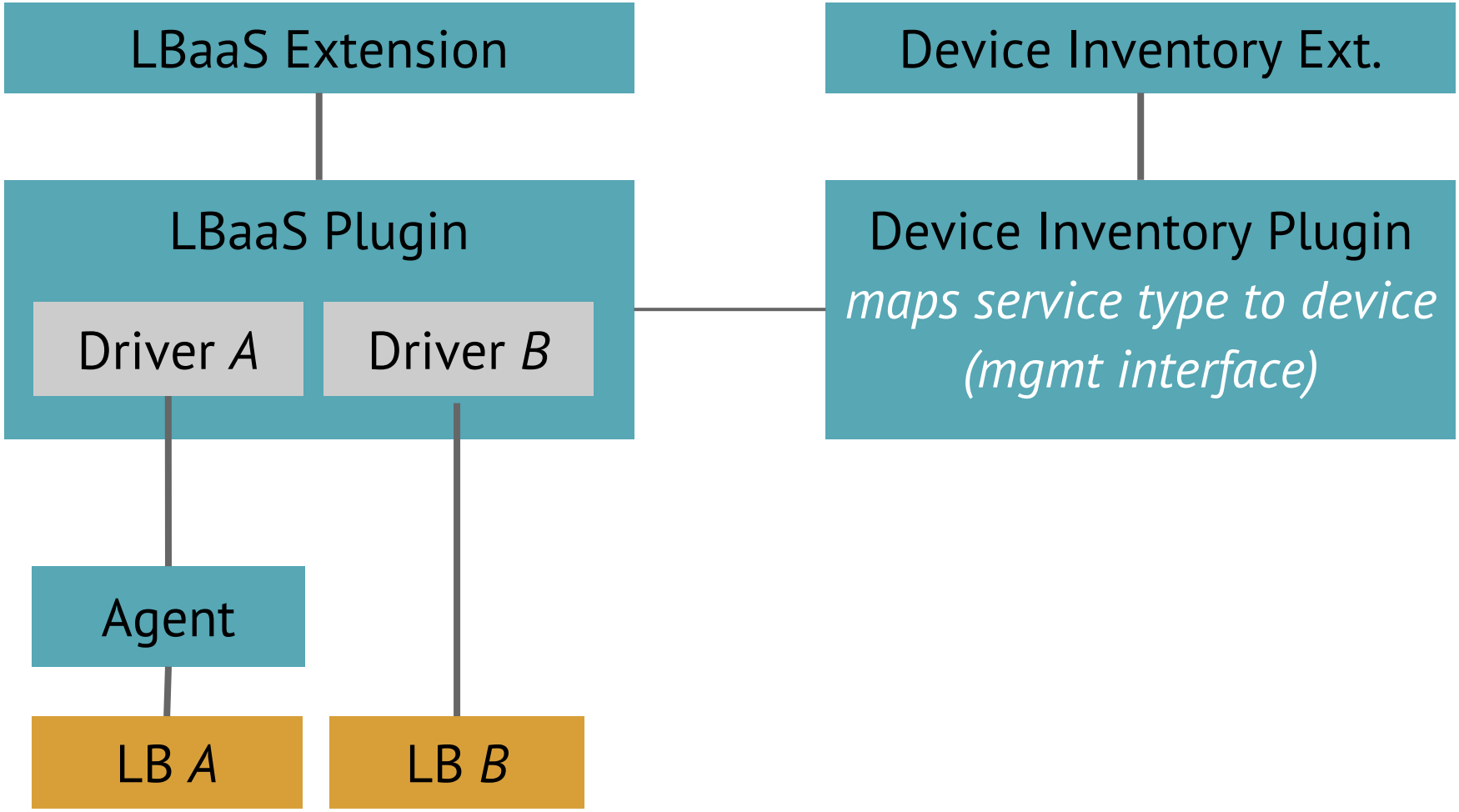
Architecture



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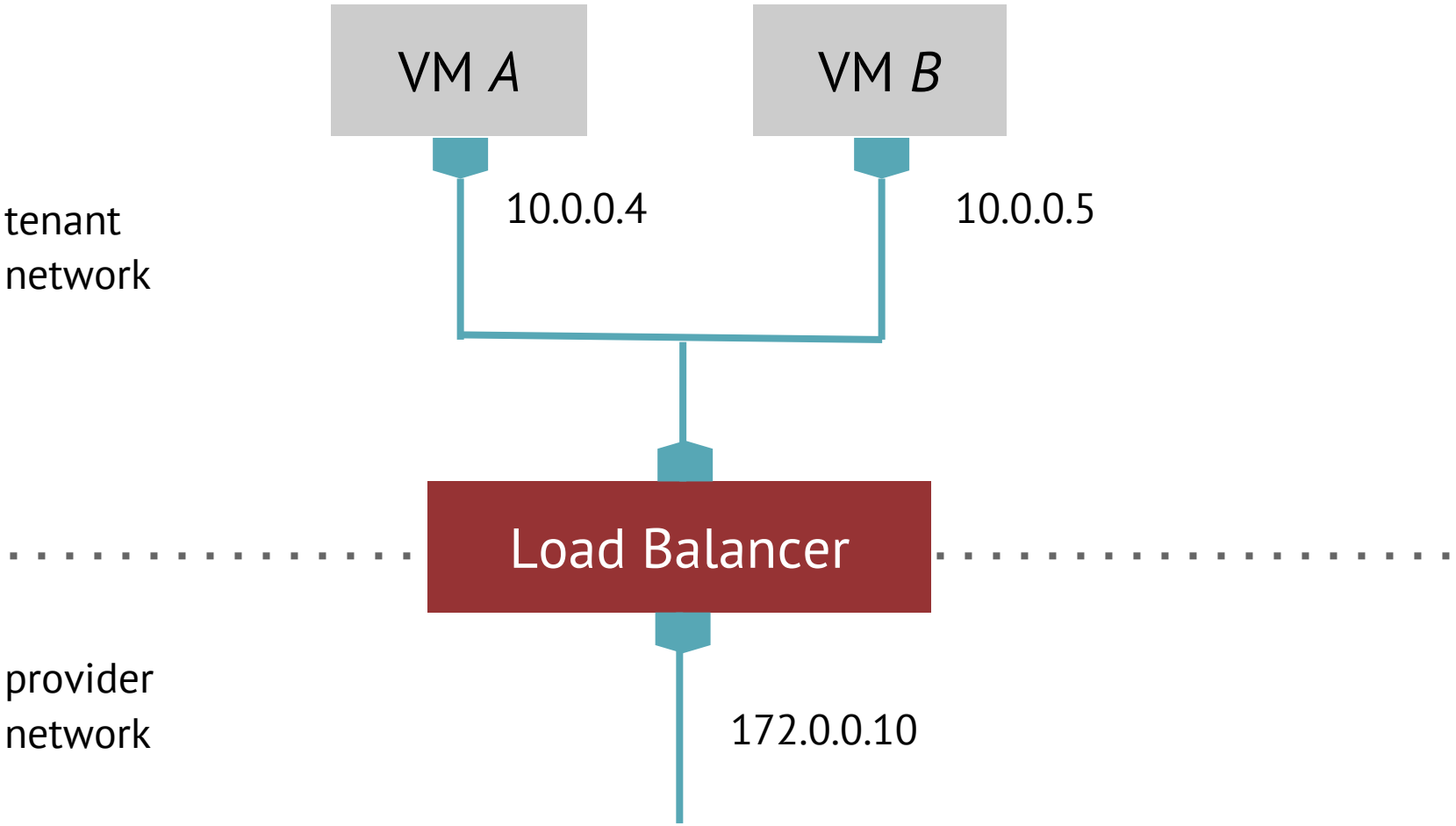
Routed Mode Insertion



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Q&A

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