## Distributed OpenNetVM

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Phil Lopreiato Dr. Tim Wood

## Scaling is Hard.



# Scaling is Expensive.

#### Traditional Enterprise Network

F5 BIG-IP 4200v (Firewall)	\$30,000
Cisco Nexus 9000 (SDN Enabled Switch)	\$80,000
F5 VE-10G (Load Balancer)	\$30,000
Dell PowerEdge R930	\$10,000
Total Cost	\$160,000

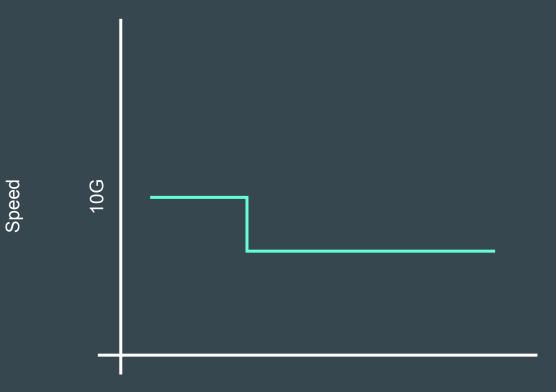
#### **NFV Network**

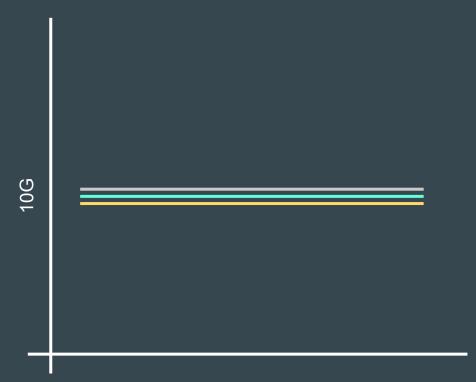
Traditional Network Cost	
Total Cost	\$160,000

Dell PowerEdge R330 (5x)	\$1,000
Intel x520 NIC (5x)	\$200
Cisco Catalyst 4948 (10G Switch)	\$1,000
Total Cost	\$7,000

# No Performance Loss







## Scaling is Hard.

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... So do it insta-magically!

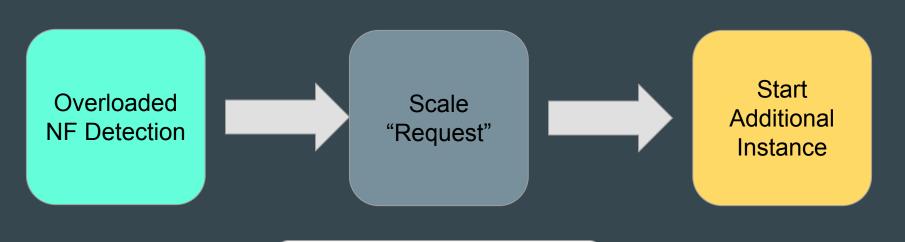
#### Data Stored in ZooKeeper

Running ONVM Instances

Service to Instance Map

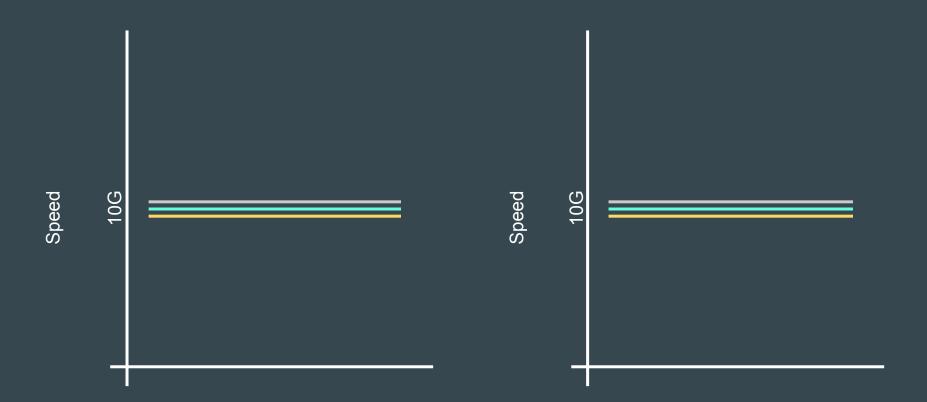
NF Instance Stats

#### **Auto-Scaling NFs**



Find an "ideal" remote location?

#### **Demo Scaling**



## Scaling is Easy.

### Scaling is Cheap.

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## Scaling is Cheap.

Scaling is Easy.

Scaling is Performant.

# Distributed OpenNetVM

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Defy Conventional Wisdom