



Own
It. Your
Cloud.

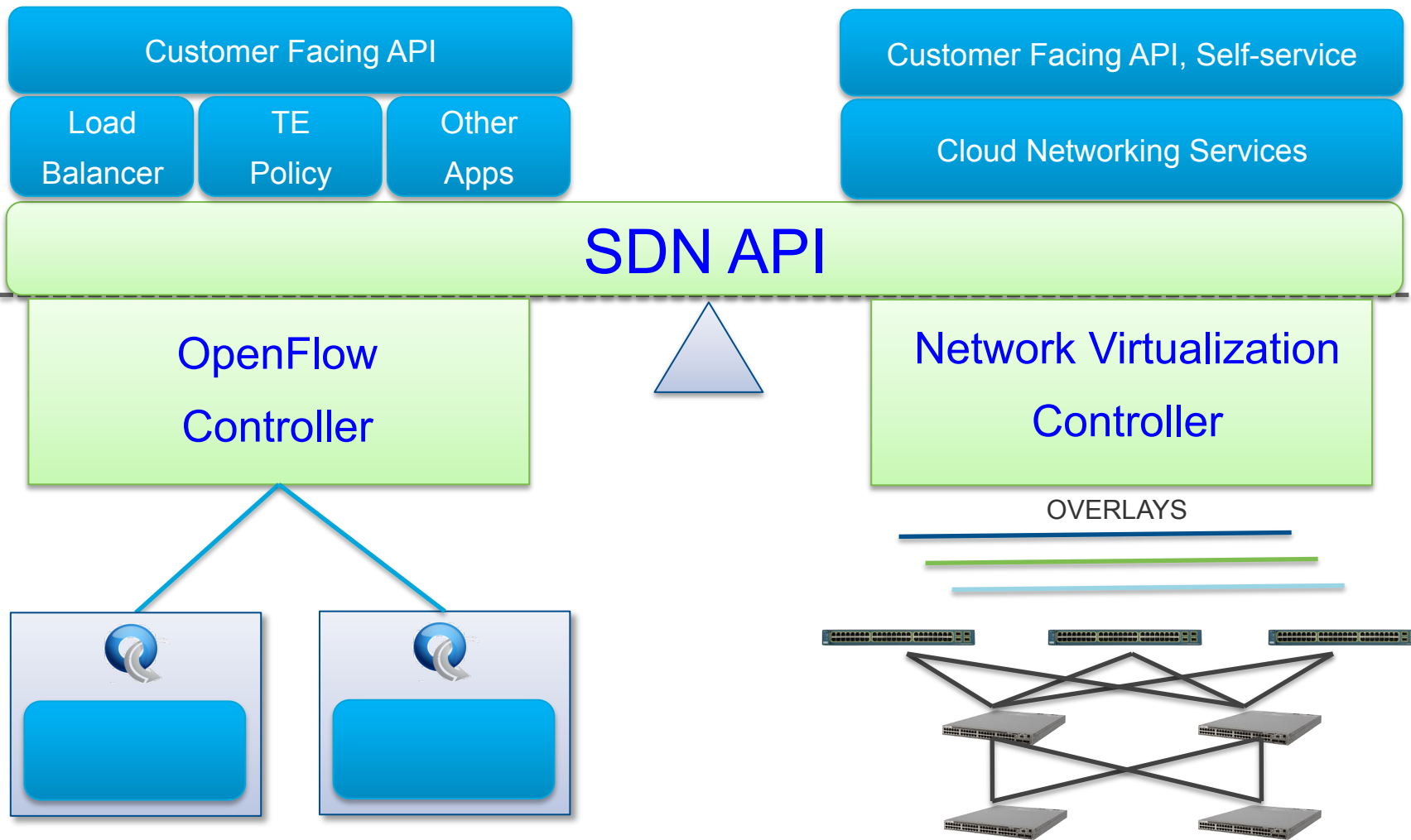
Open Networking Summit

Allwyn Sequeira – CTO and VP, Security & Networking

VMware

April 2012

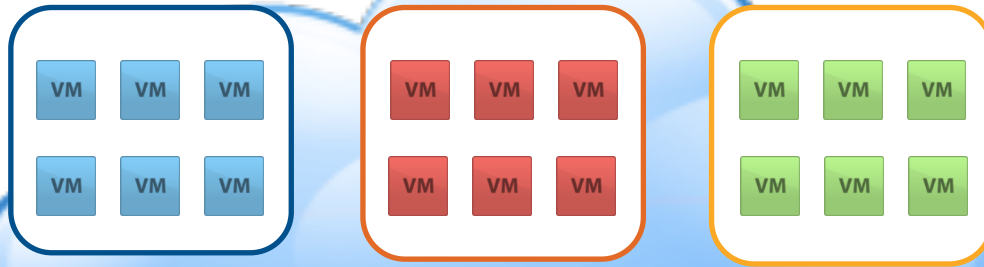
Software Defined Networking – Two Views



“REPLACE THE COMPLEXITY”

“EXTRACT THE SIMPLICITY”

Server Virtualization & Cloud Computing Journey



PRIVATE CLOUD

Server Virtualization



BUT, NETWORKING GETS IN THE WAY ☹️

Abstraction - Virtualization

- X86 virtualization
- VM containers

Pooling

- Hosts and clusters
- Elasticity, mobility (vMotion)

Slicing

- Multi-tenancy
- Automation & provisioning

Cloud

- Private cloud
- App self-service

The need for SDN - Reduce costs, improve agility.

Past



\$10,000
10 weeks

Present



\$300
2 minutes



VLANs, IPAM



Firewall



Load balancer



IDS, monitoring



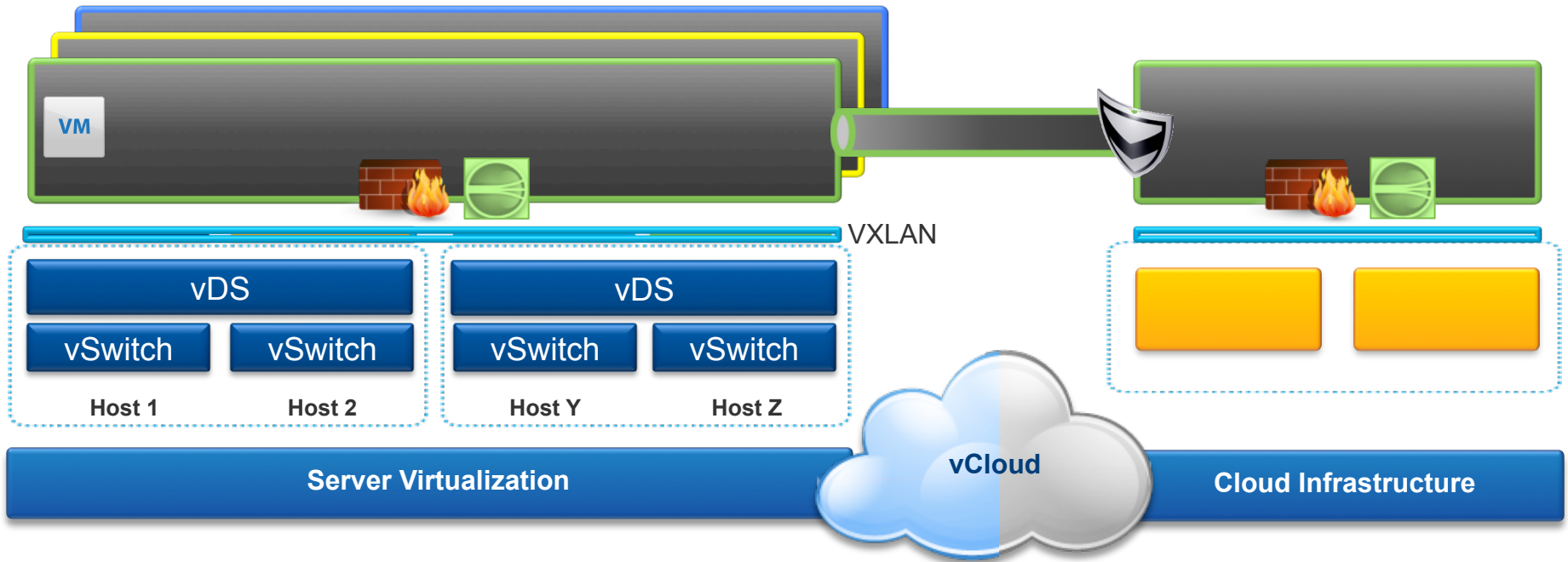
Storage



Availability

\$1800
5 days, 2 minutes

SDN: Enabling Network Virtualization & Cloud Networking



- **Abstraction:** vSwitch started the SDN & network virtualization journey
- **Pooling:** vDS enabled pooling of network ports across clusters
- **Slicing:** VXLAN enables instant elasticity across L3, multi-tenancy
- **Automation:** Consume logical, elastic networks on demand
- **Additional Services:** FW, LB, VPN, IPAM & logical service insertion

Summary

- SDN & network virtualization deployments are here already
- SDN APIs, OpenFlow will unleash a new wave of innovation
- Thanks to ONF, ONRC for spear heading these initiatives!

