Traditional Switched Networks

G0/1.20 10.10.20.1
G0/1.30 10.10.30.1

Access Port: VLAN 20   Access Port: VLAN 30

Server 1
VLAN 20
10.10.20.10

Server 2
VLAN 30
10.10.30.10

FLACKBOX
www.flackbox.com
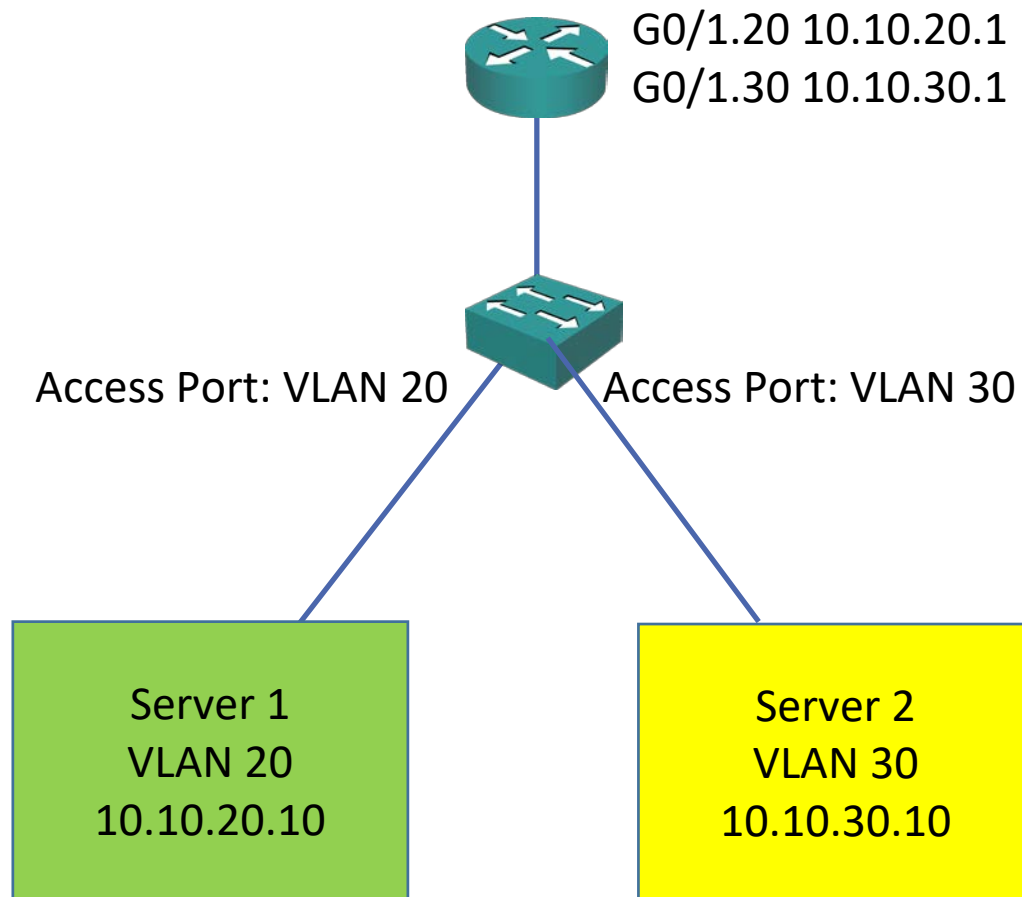
Virtual Switch eg Nexus 1000V

G0/1.10 10.10.10.1
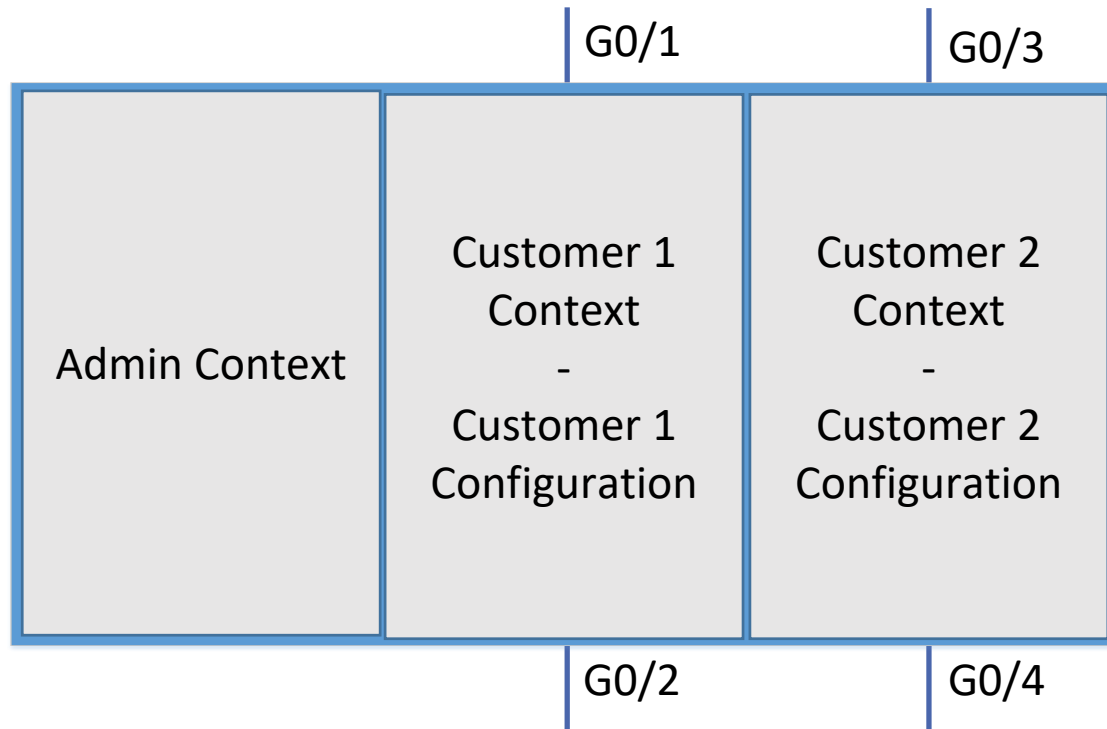G0/1.20 10.10.20.1
G0/1.30 10.10.30.1

Trunk VLANs 10, 20, 30

| Management VLAN 10 10.10.10.10 | Virtual Machine 1 VLAN 20 10.10.20.10 | Virtual Machine 2 VLAN 30 10.10.30.10 |
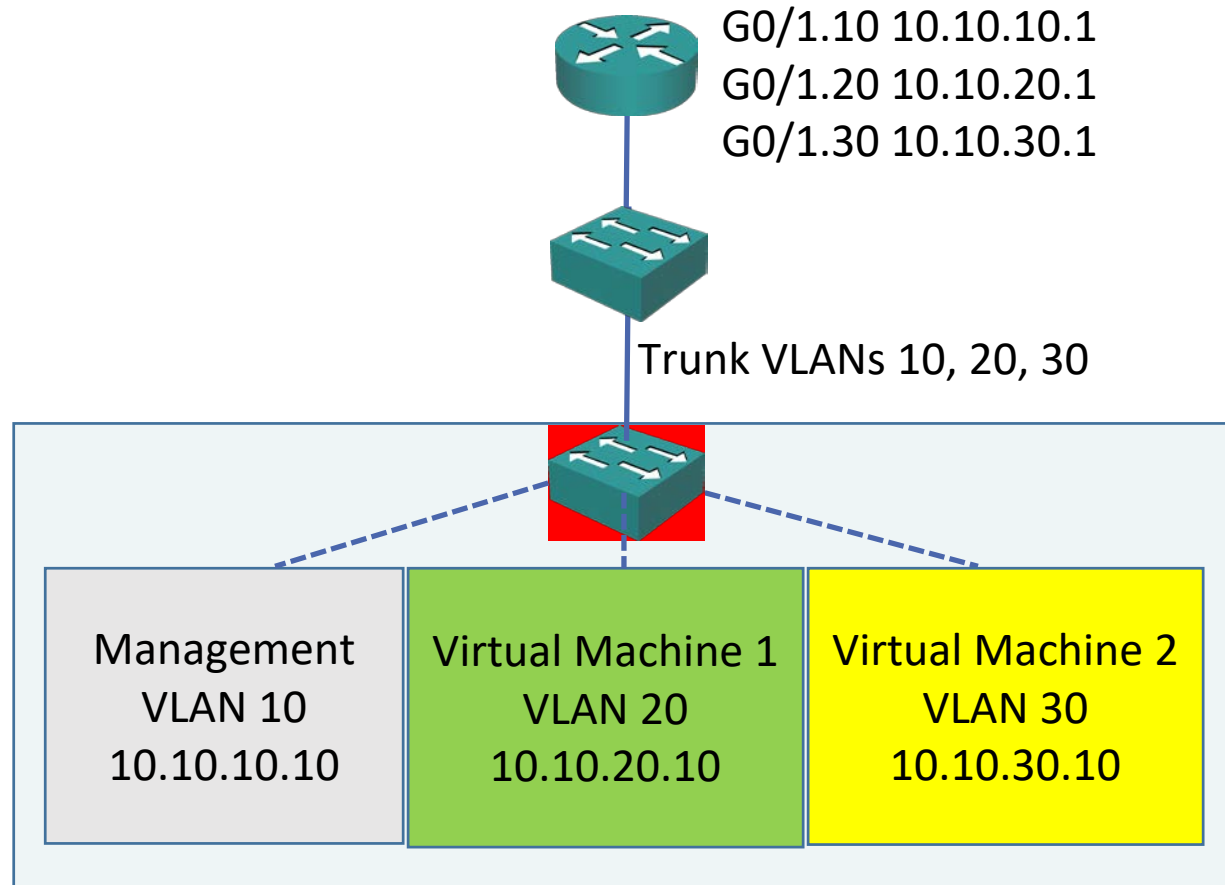
Virtual Router eg CSR 1000V

Trunk VLANs 10, 20, 30

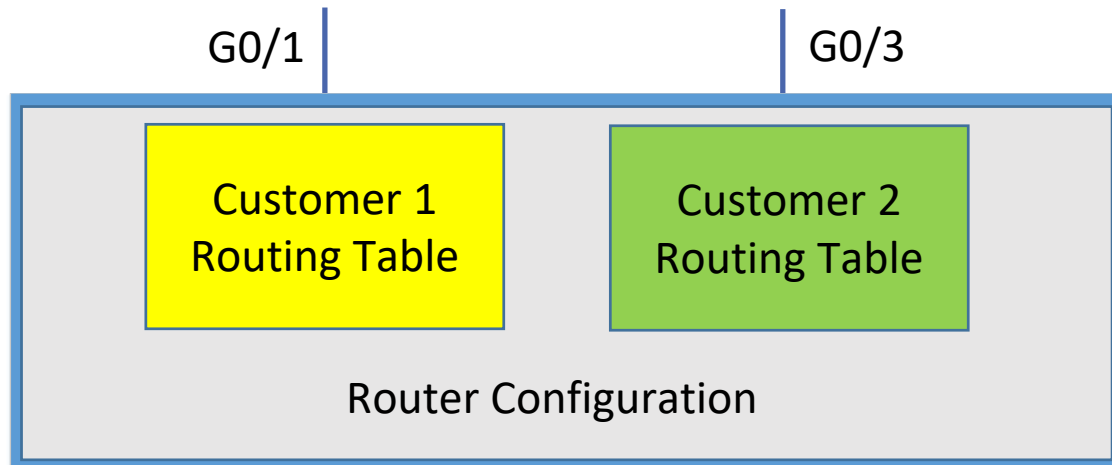| Management
VLAN 10
10.10.10.10 | Virtual Machine 1
VLAN 20
10.10.20.10 | Virtual Machine 2
VLAN 20
10.10.20.10 | Virtual Machine
Router
VLANs 20, 30
10.10.20.1
10.10.30.1 |
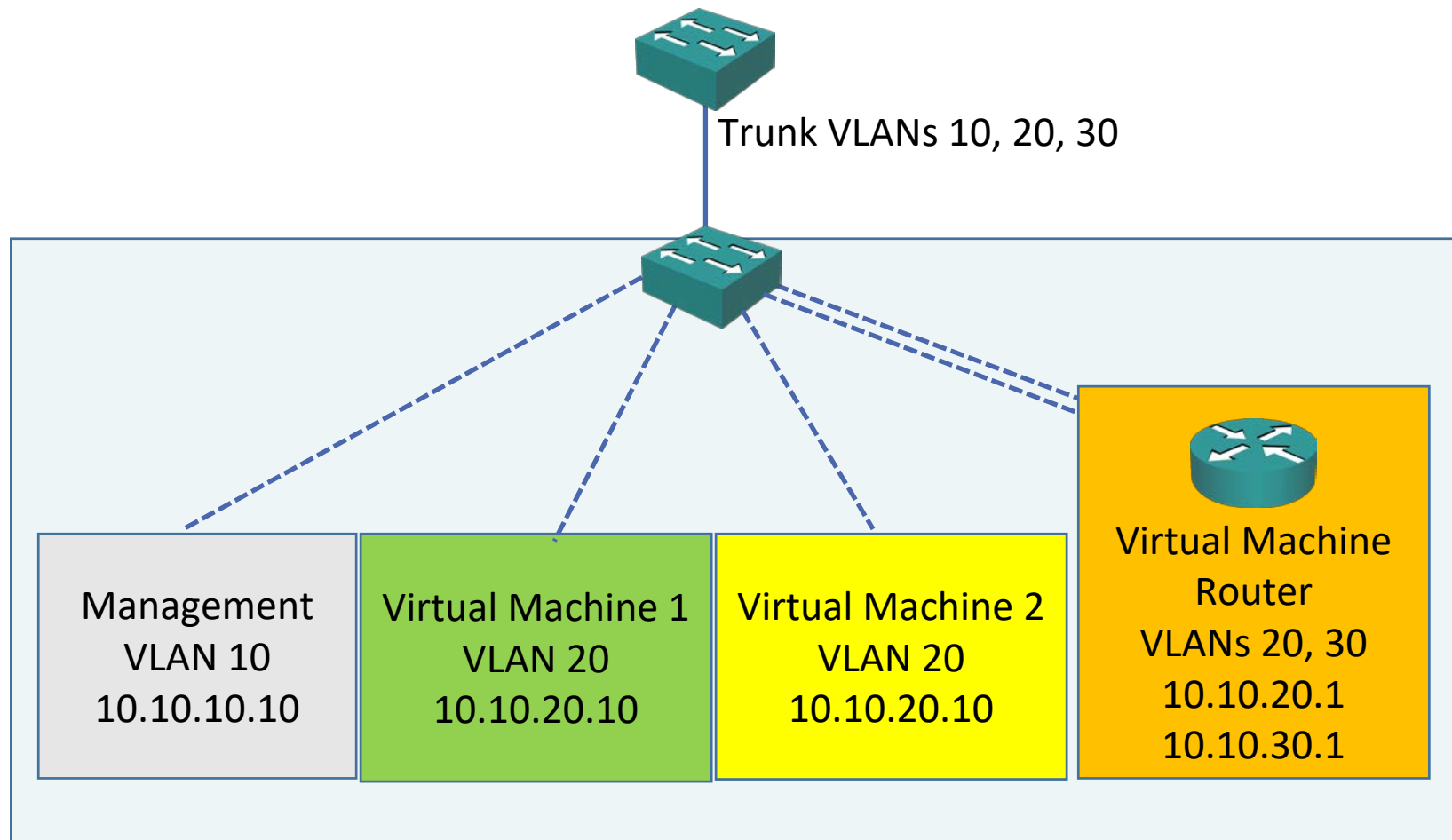
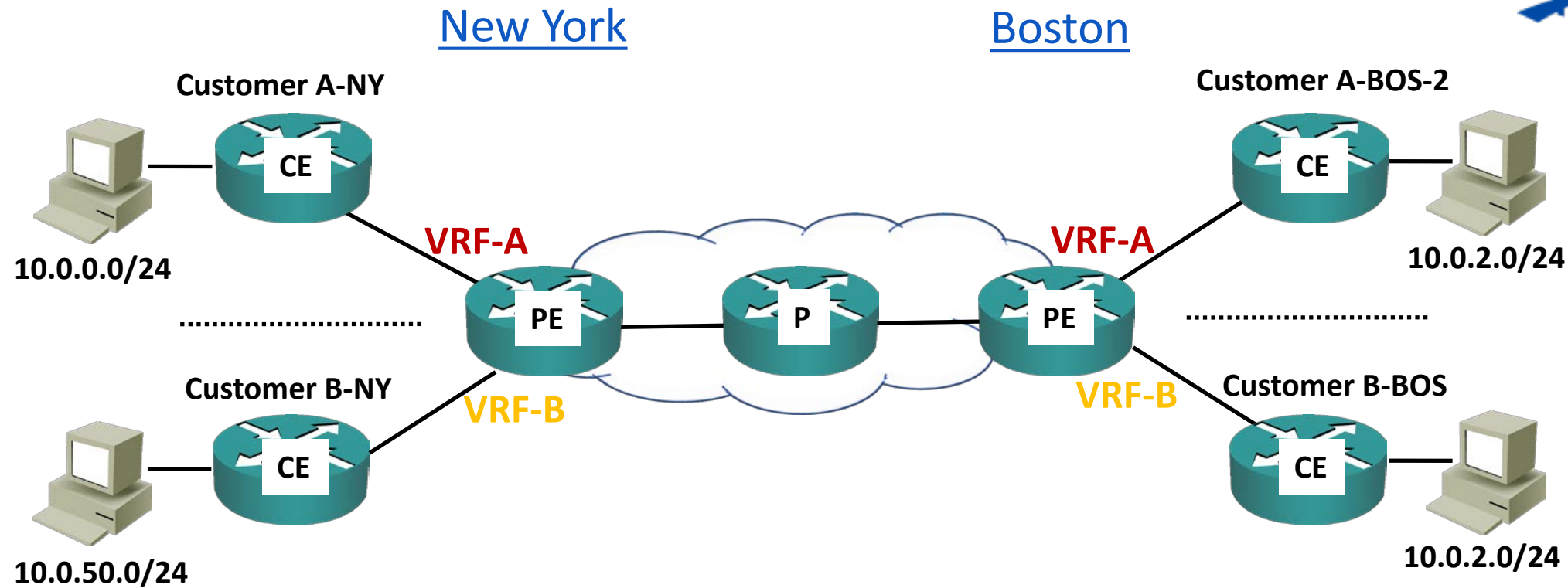# Firewall Virtualization with Contexts eg ASA

Router Virtualization with VRF

- Virtual Routing and Forwarding

VRF Virtual Routing and Forwarding

Virtualization

- Virtualization supports running multiple virtual systems on a single physical system

- This provides flexibility and reduces costs

- Redundancy is supported by adding multiple physical systems which each have virtual systems running on them

Clustering

- Clustering supports combining multiple physical systems into a single virtual system
- This provides redundancy and increased performance