

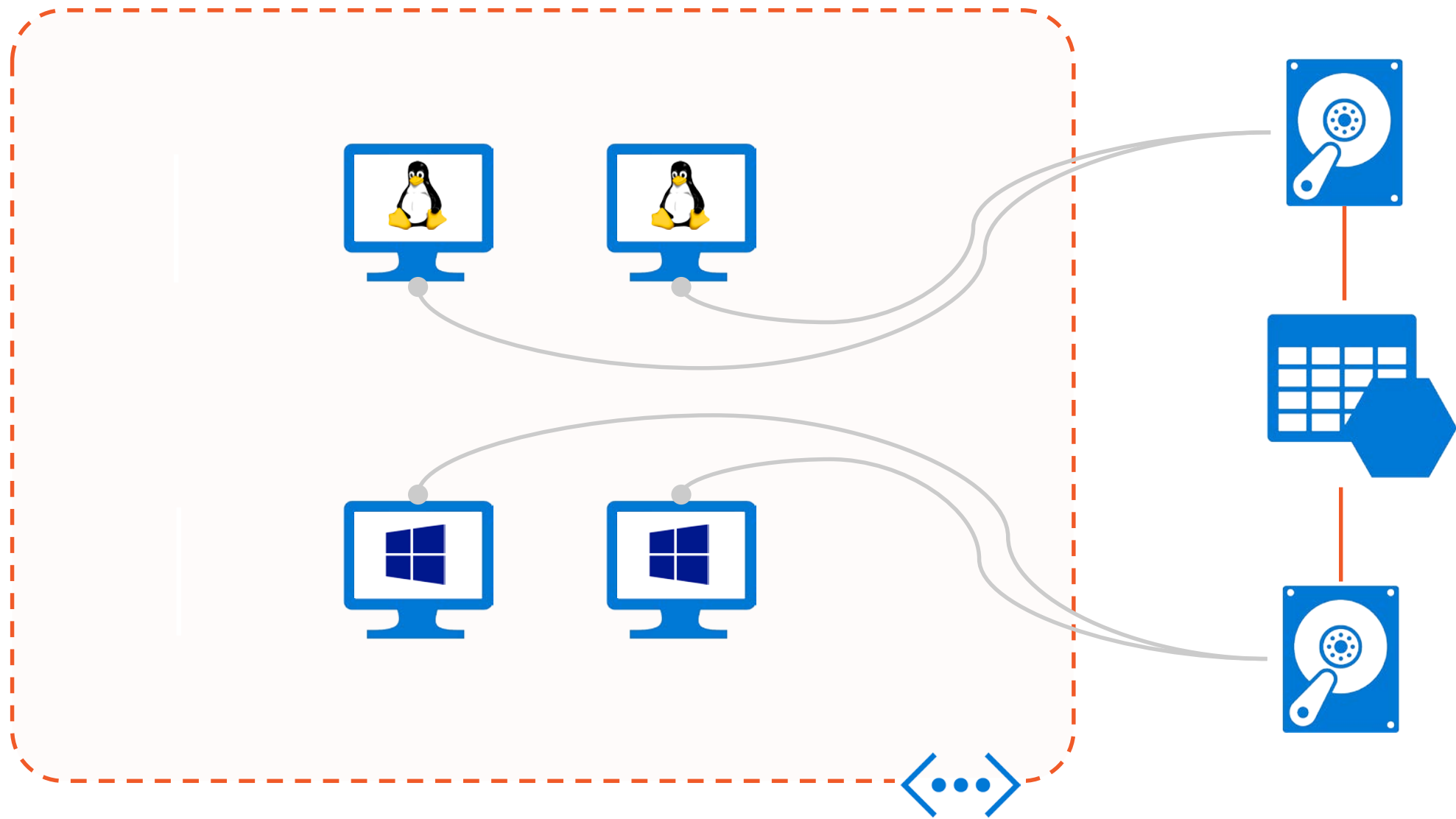
Custom Images and Load Balancers

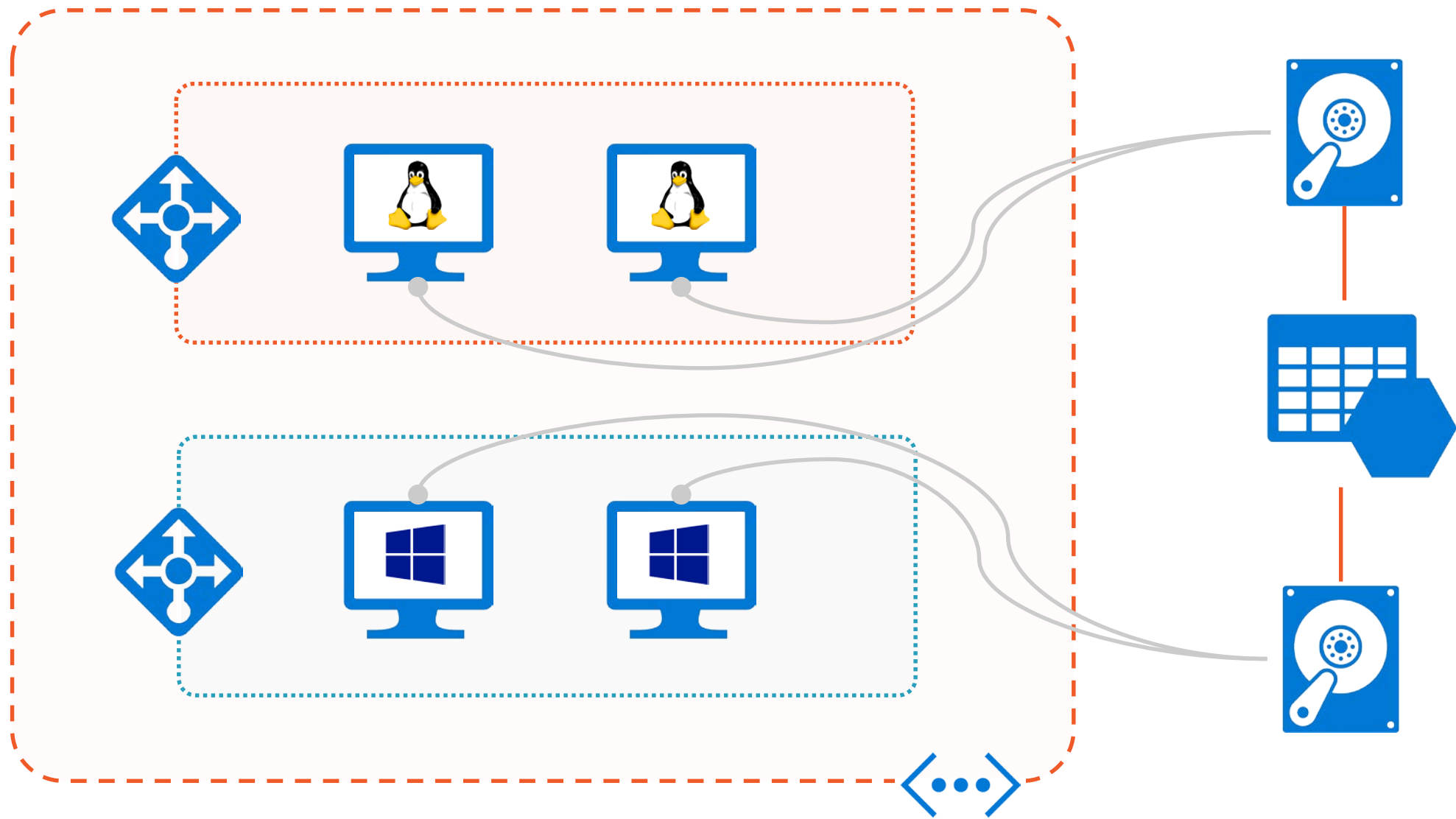


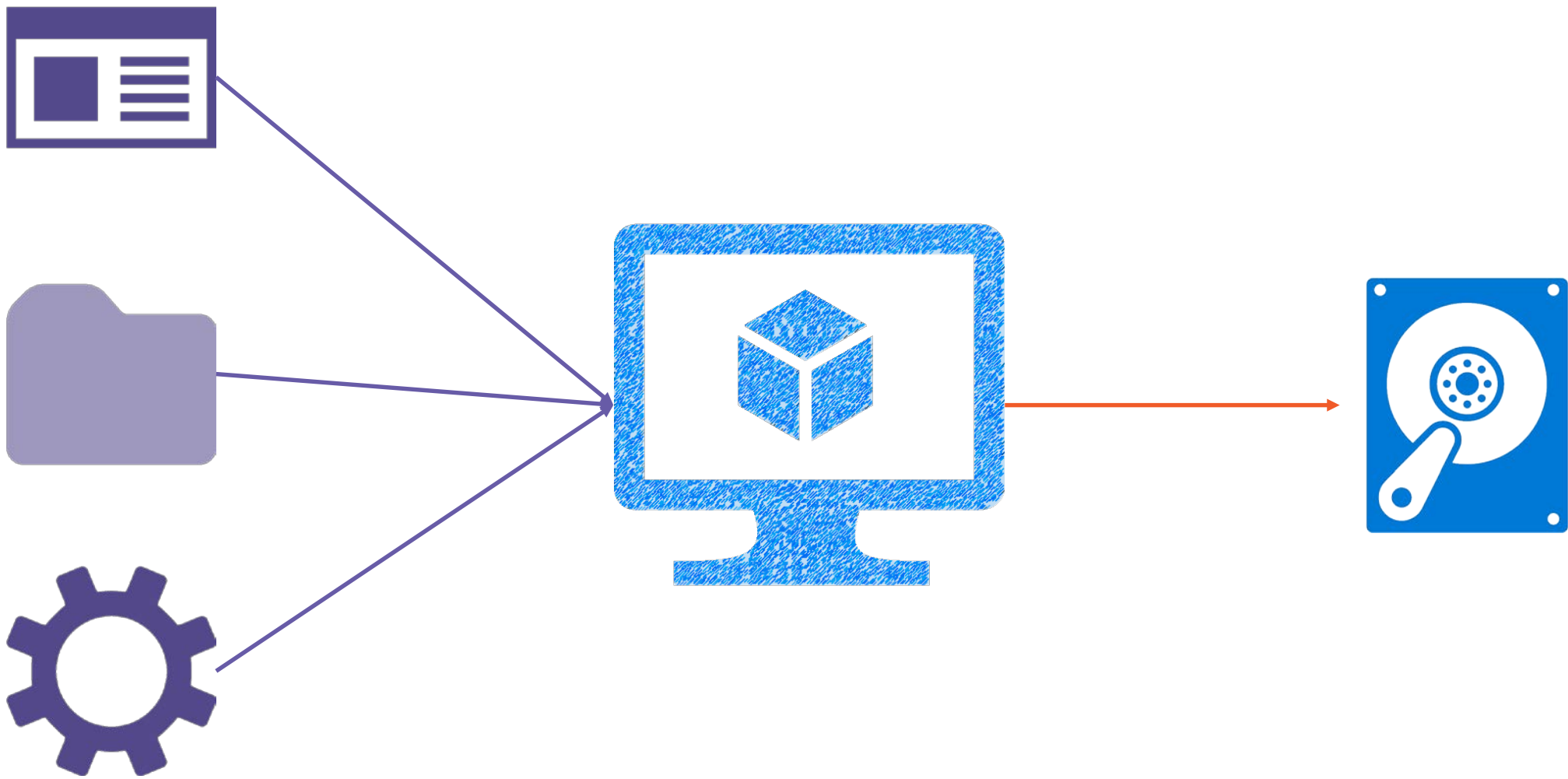
Elton Stoneman

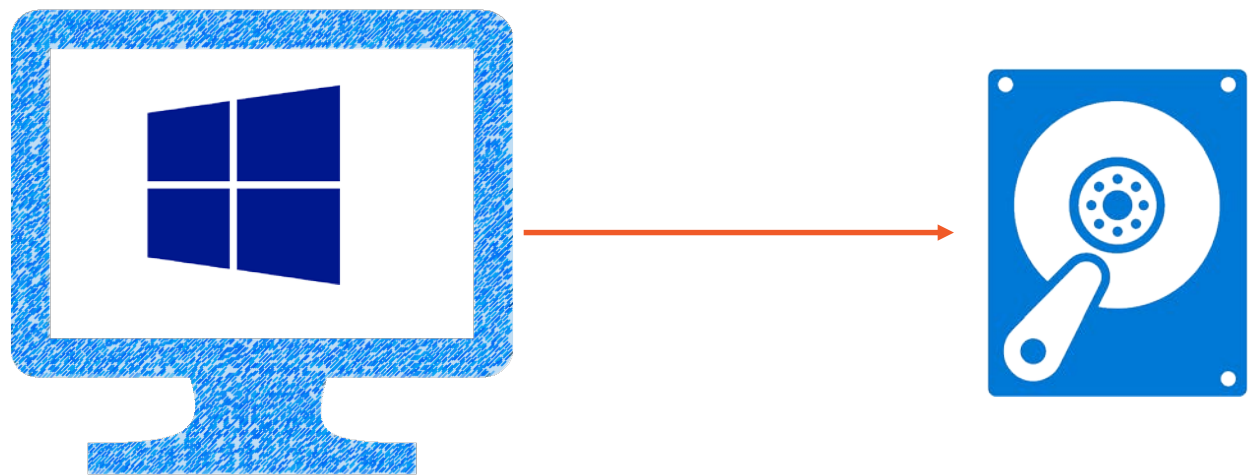
SOFTWARE ARCHITECT

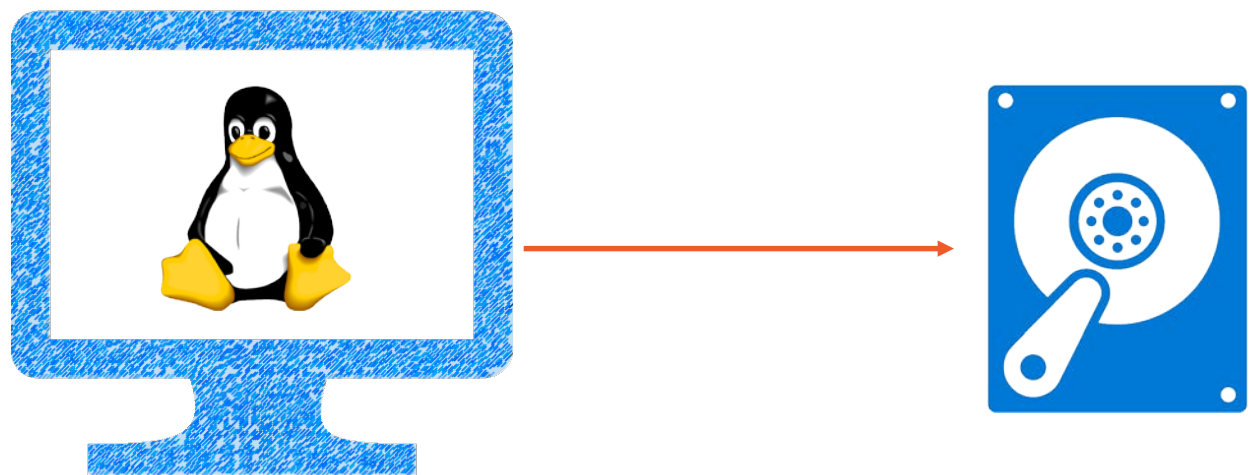
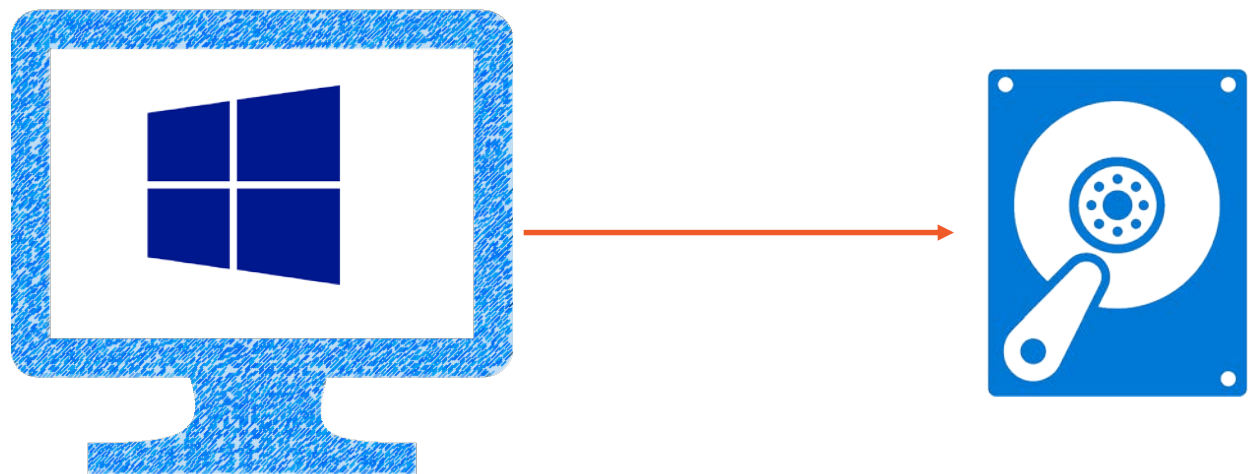
@EltonStoneman blog.sixeyed.com

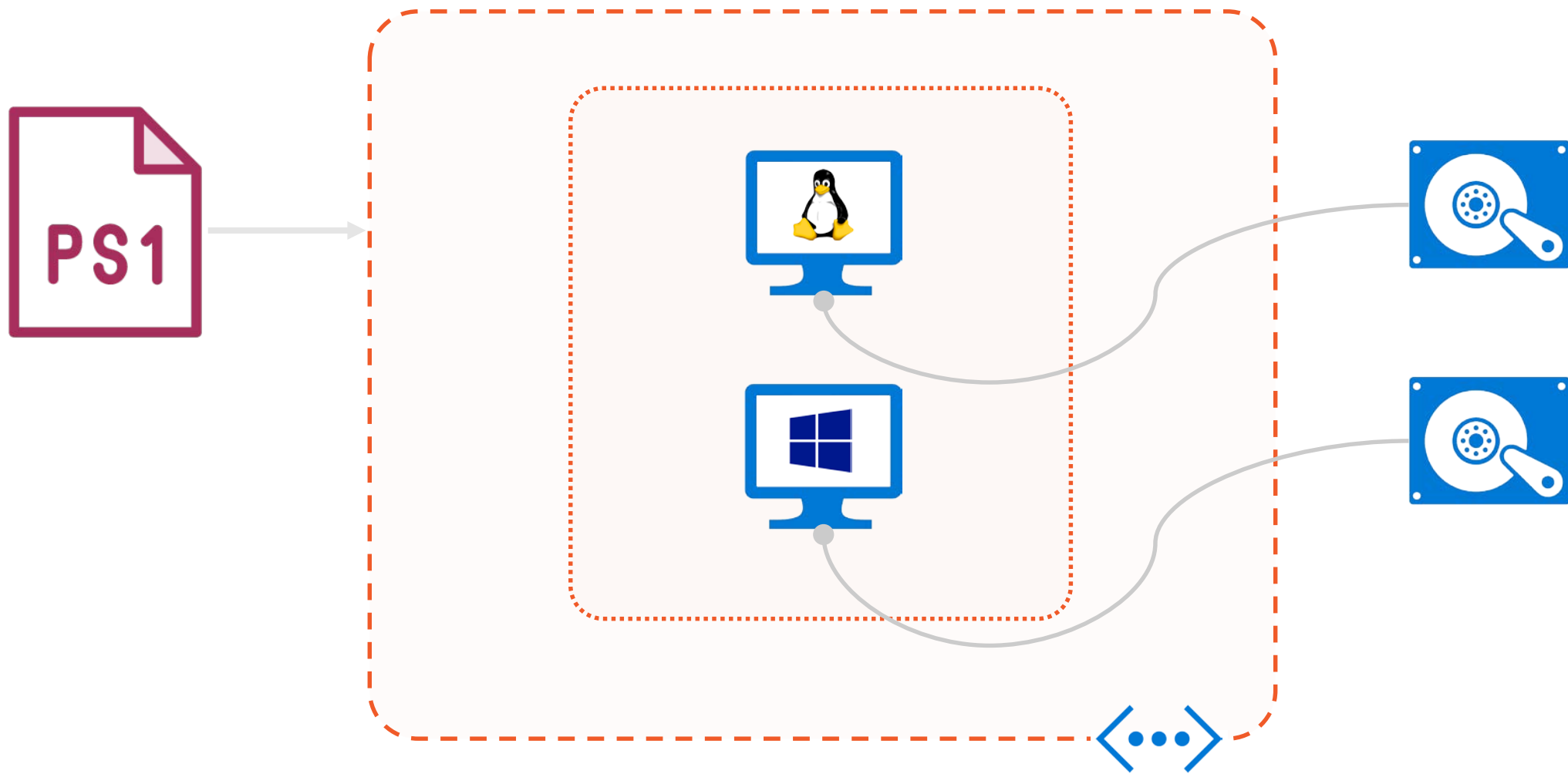


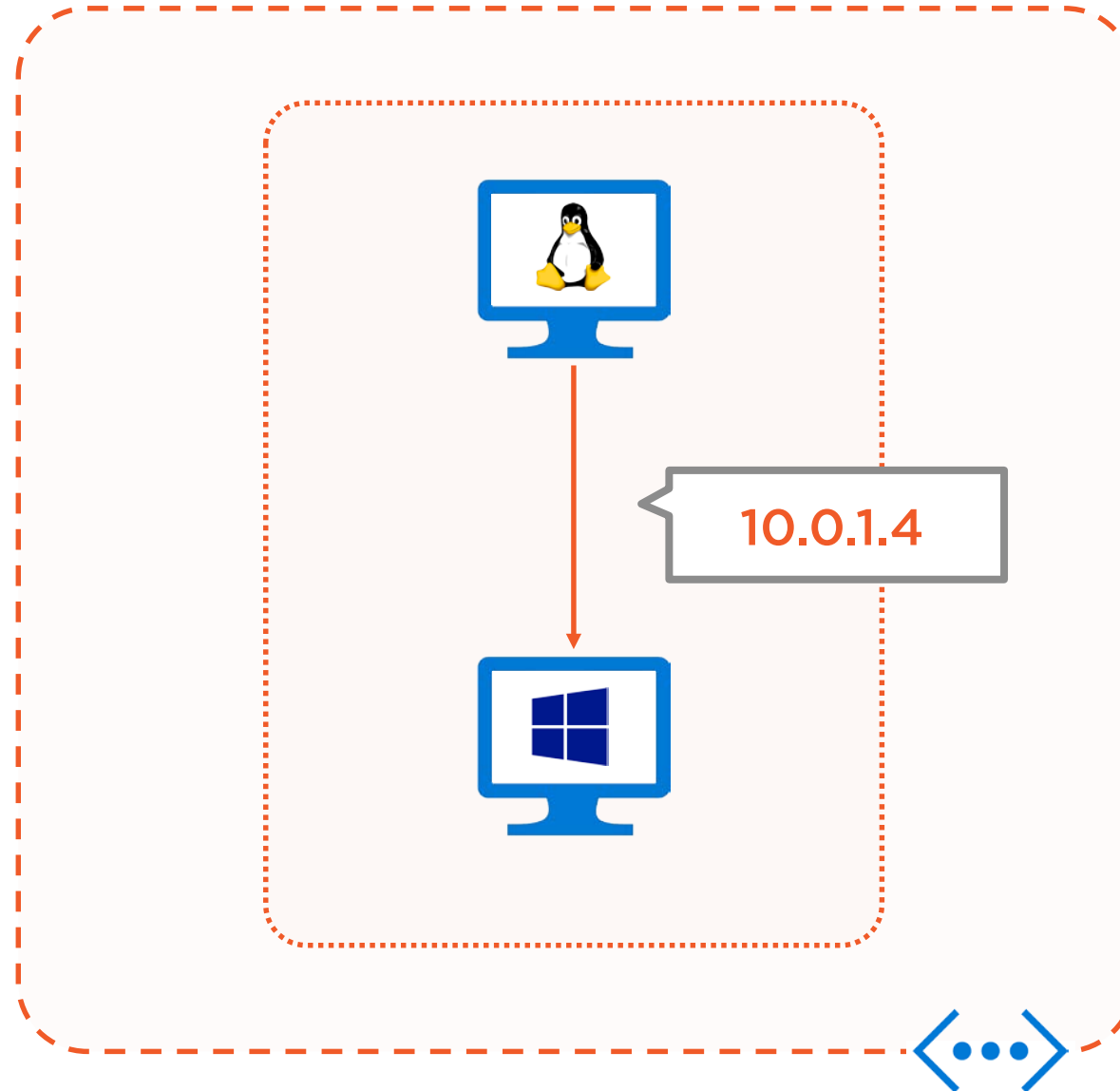


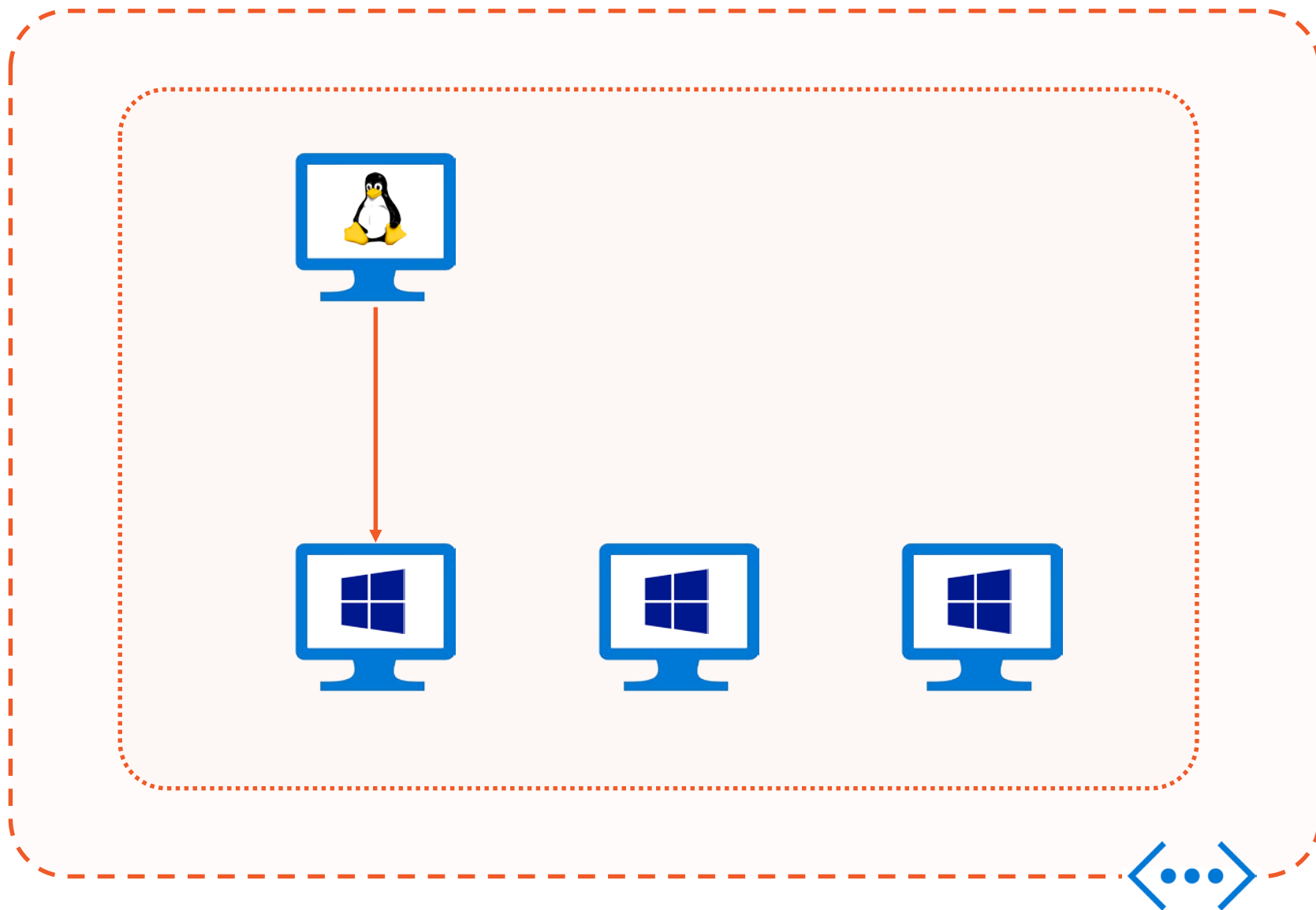


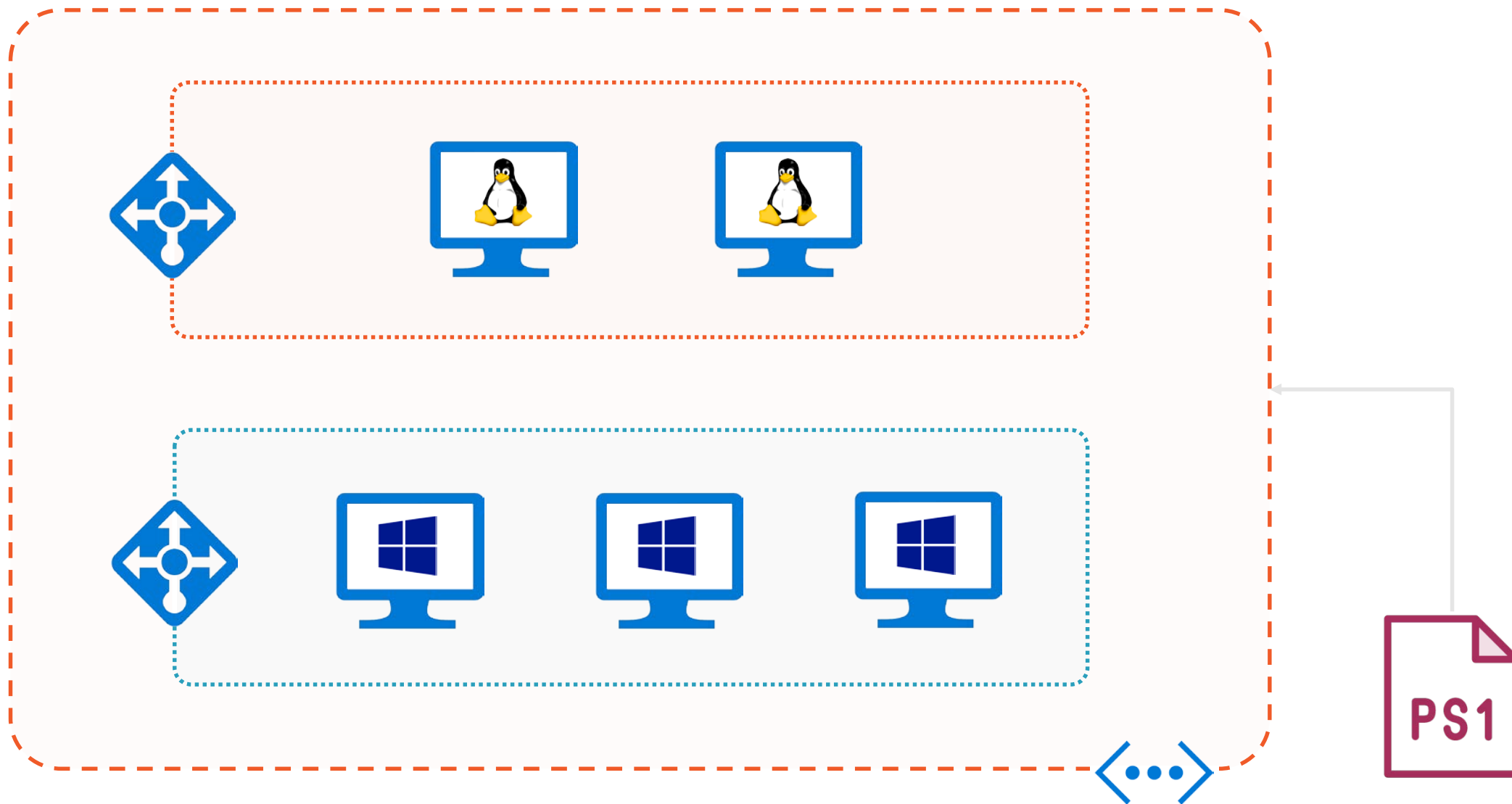












Demo



Setup Windows Server

- Install IIS
- Install .NET
- Configure Website

Demo



Extract Server Image

- Generalize
- Shut Down VM
- Save Image



VM Setup

Pre-requisites

App configuration



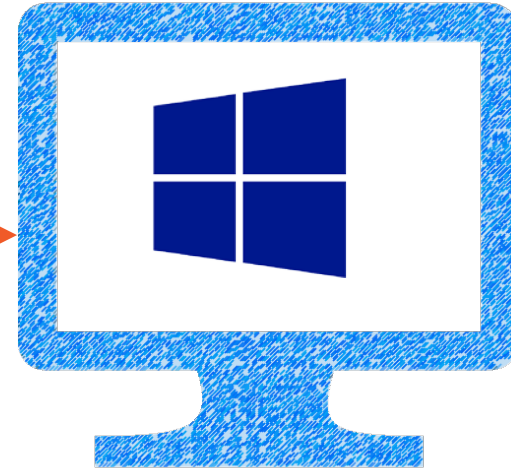
Generalize

Run sysprep

Shut down



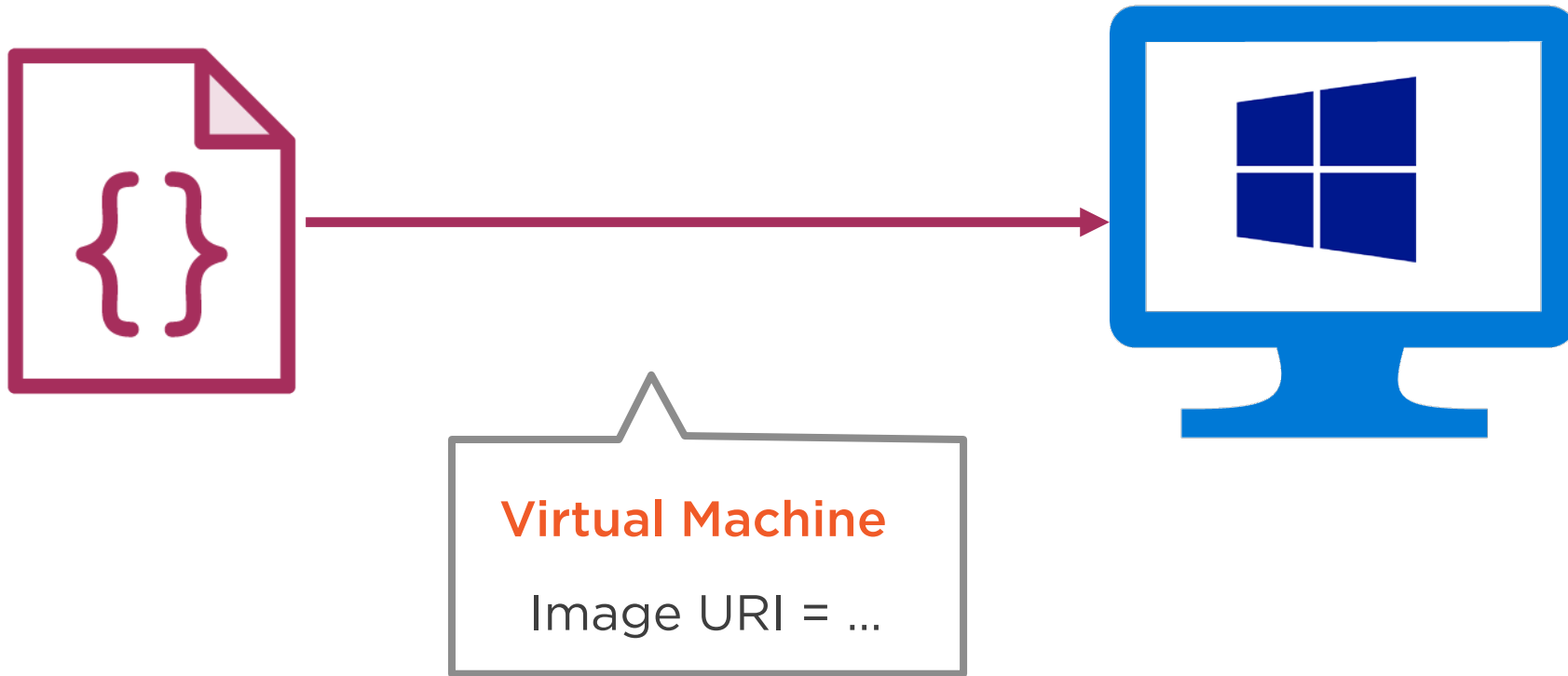
Stop-AzureRmVM

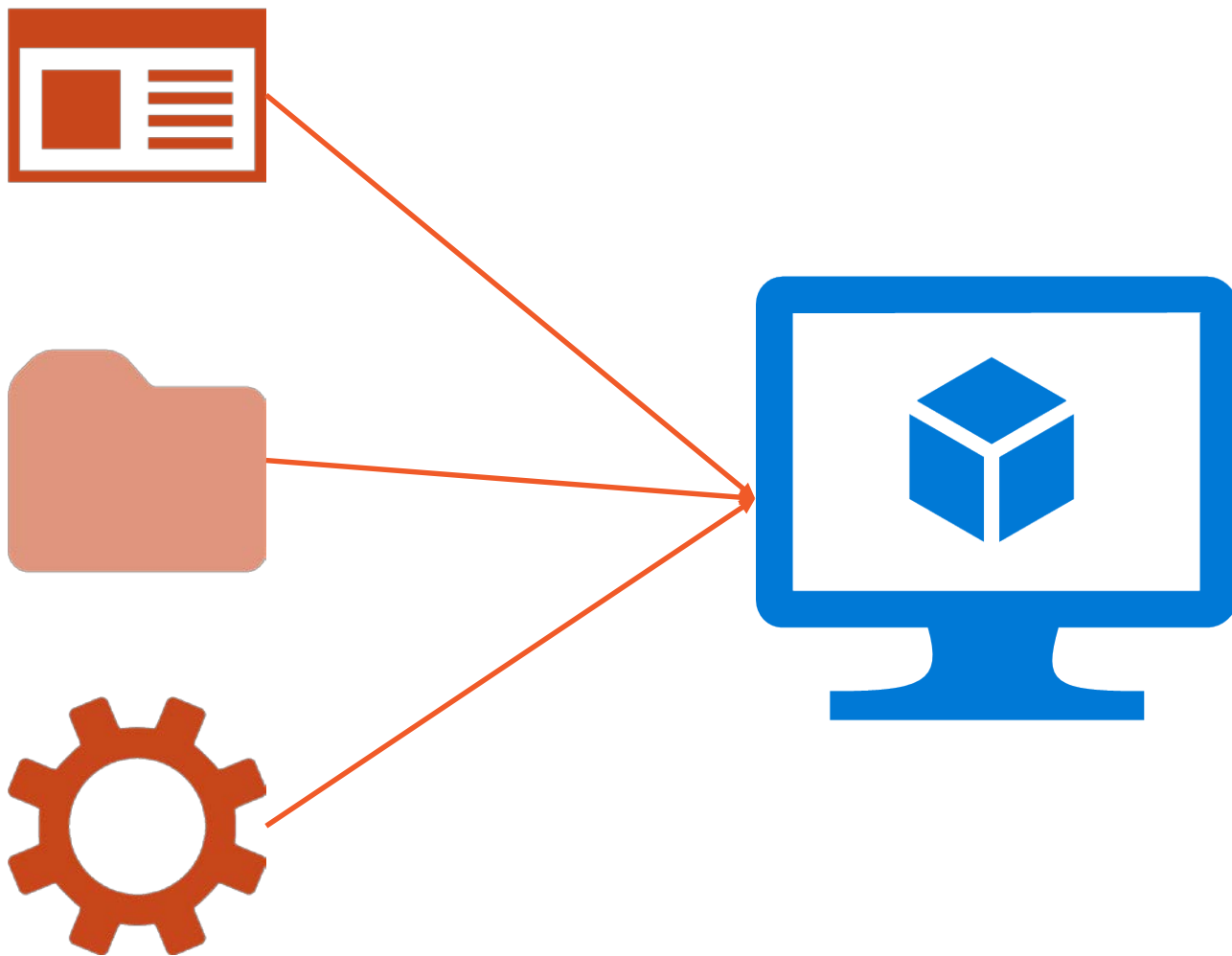


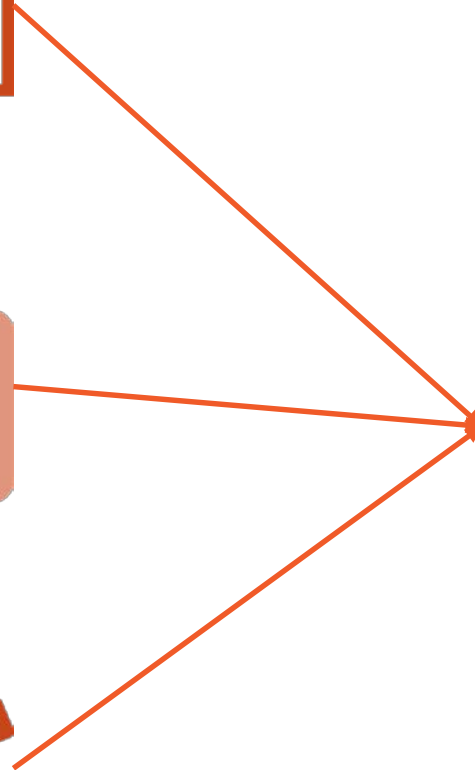
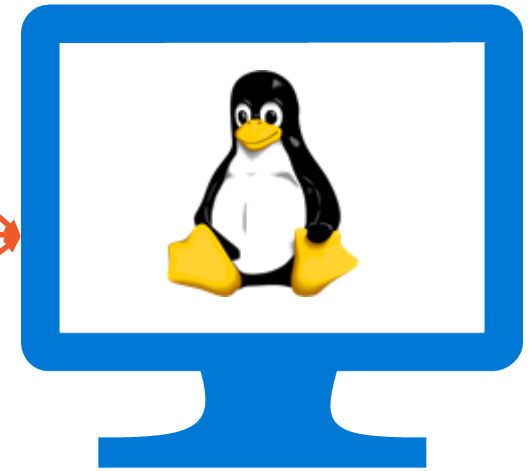
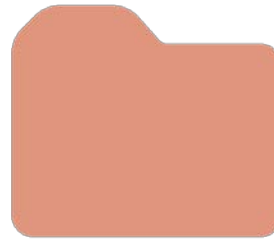
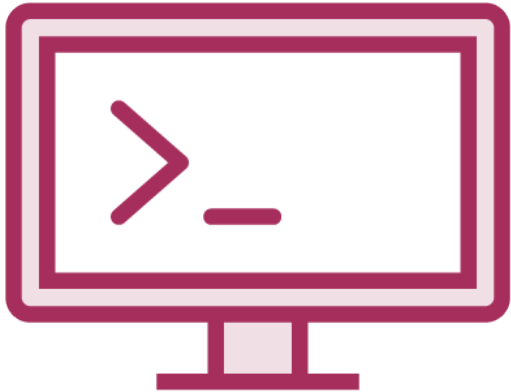
Stop-AzureRmVM
Set-AzureRmVM

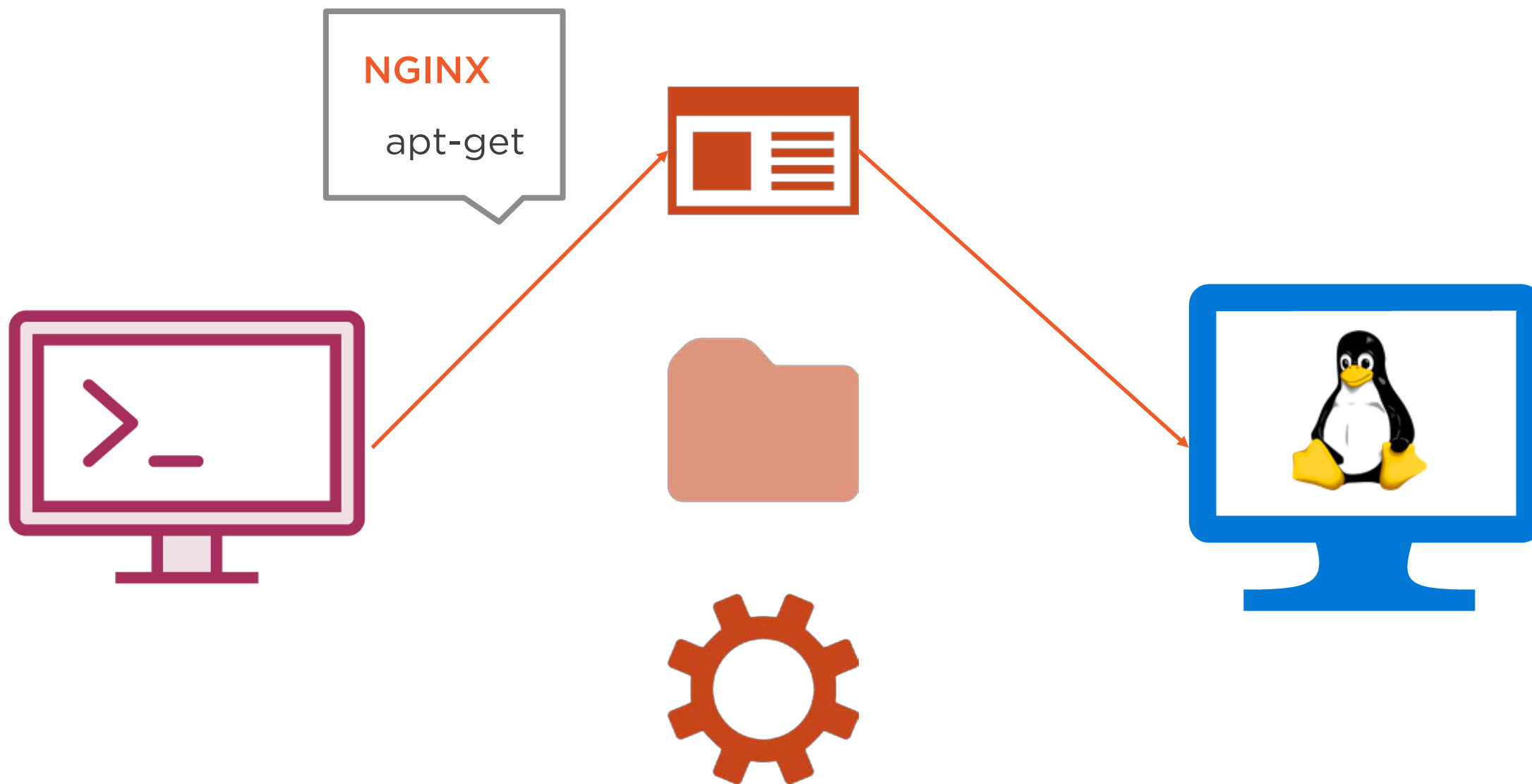


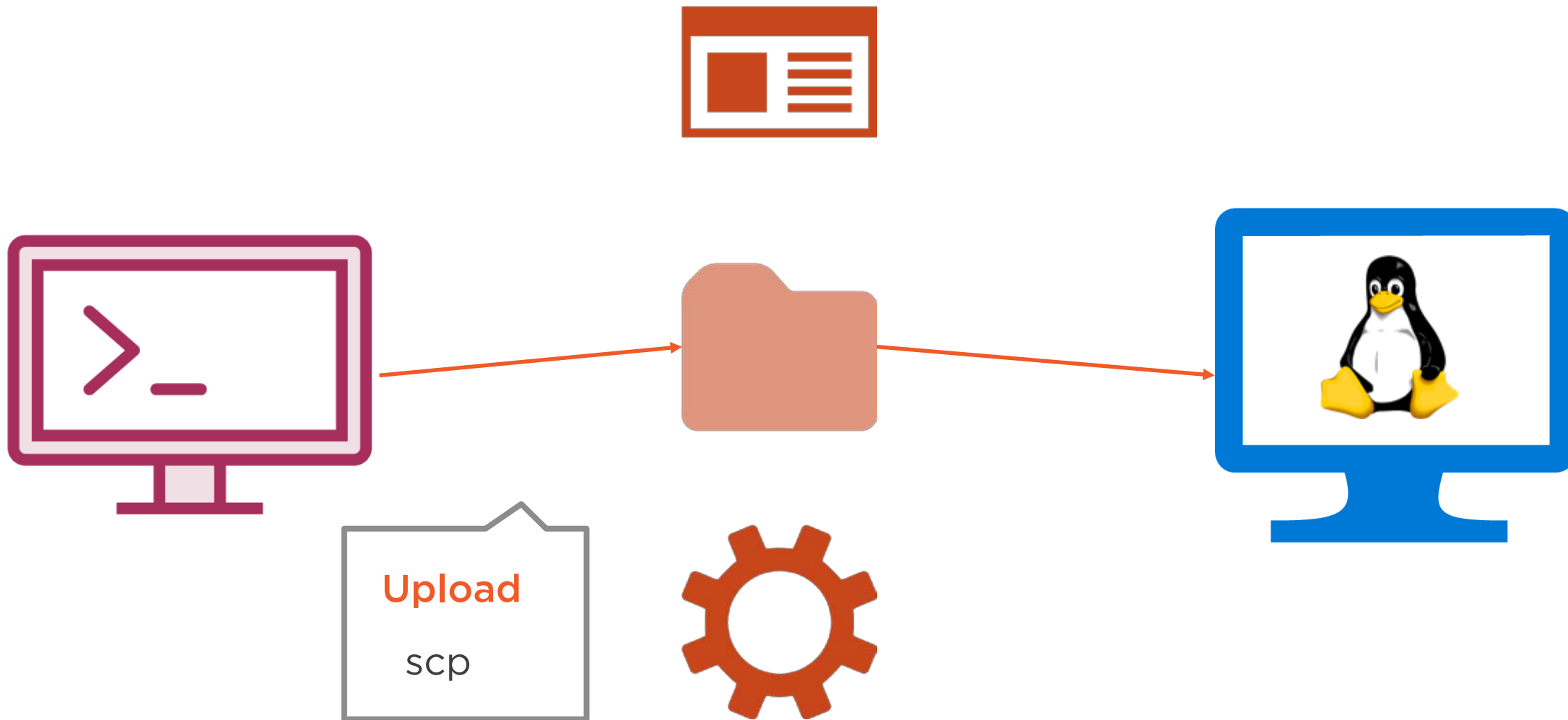
Save-AzureRmVMImage

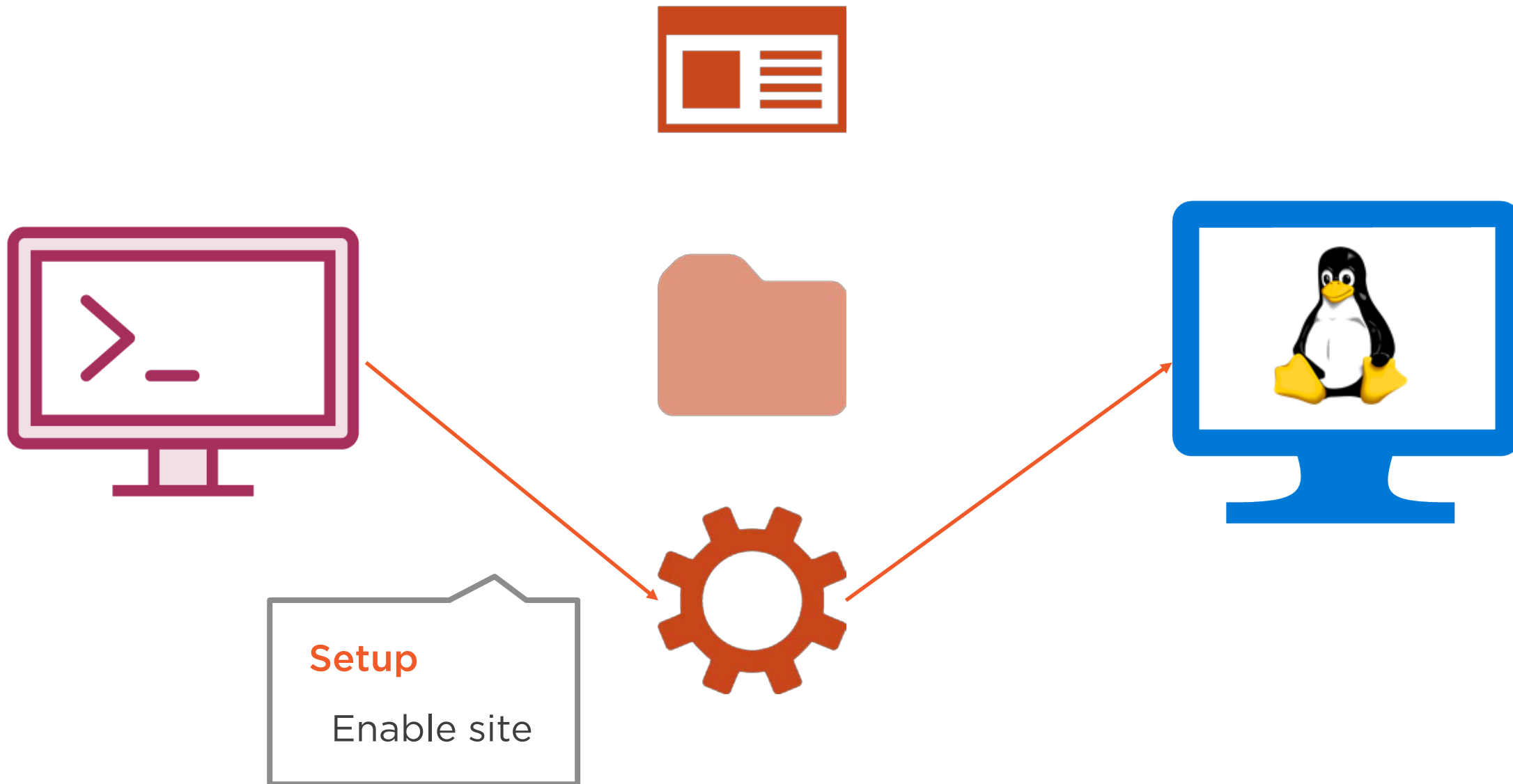


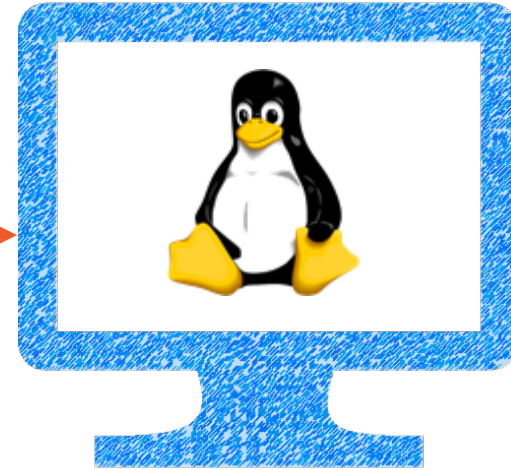
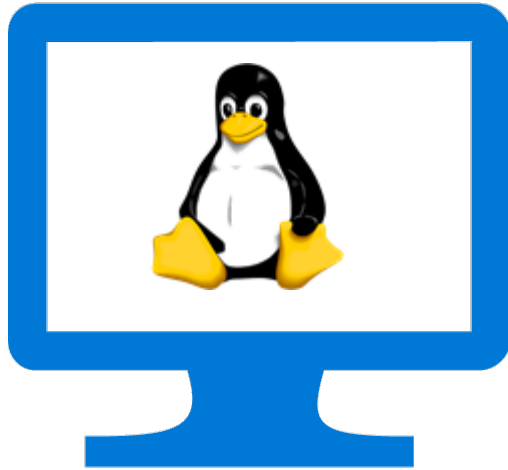








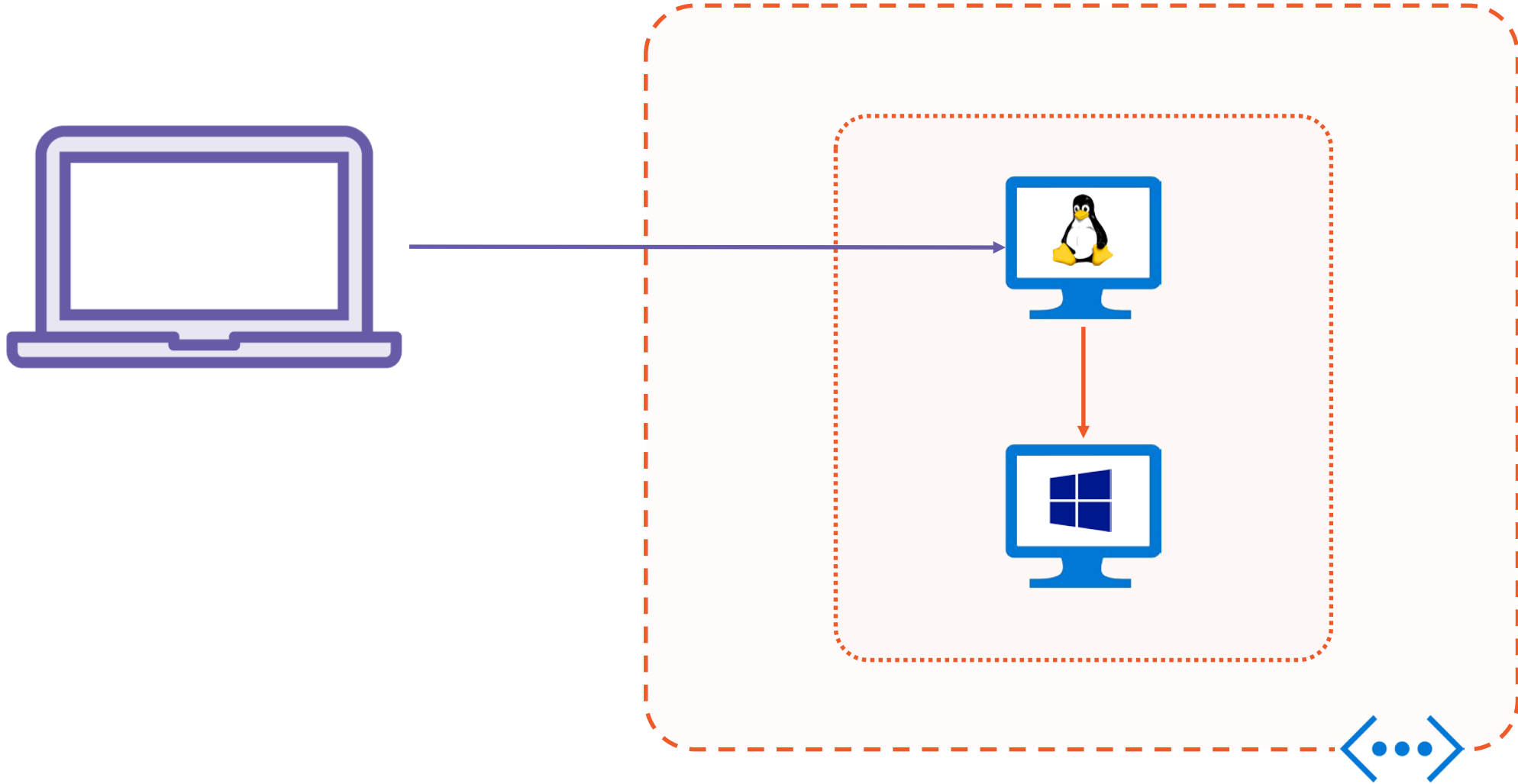




Generalize

Run waagent

Shut down



Demo



Setup Ubuntu Server

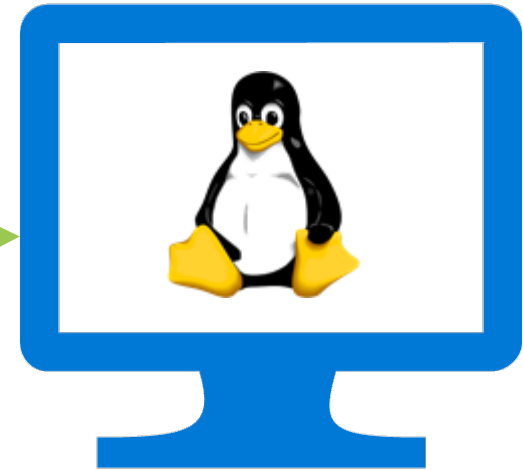
- Install NGINX
- Copy Configuration
- Setup NGINX

Demo



Extract Server Image

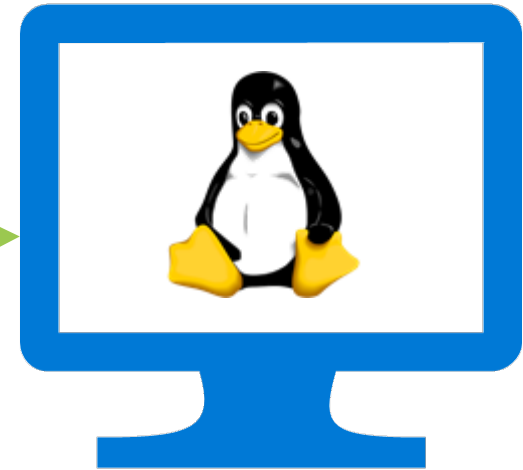
- Generalize
- Shut Down VM
- Save Image



VM Setup

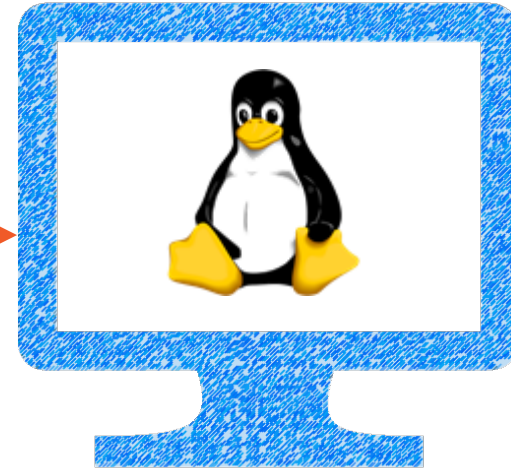
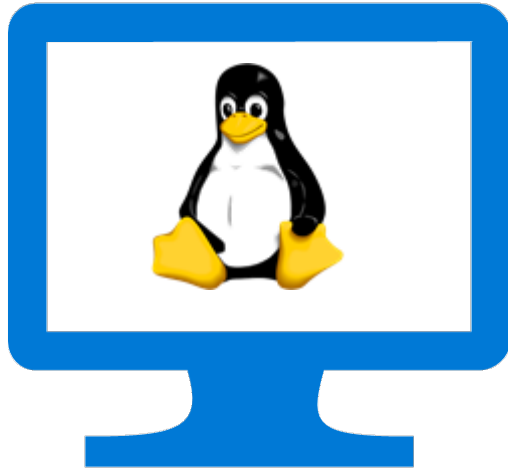
Pre-requisites

App configuration



TODO

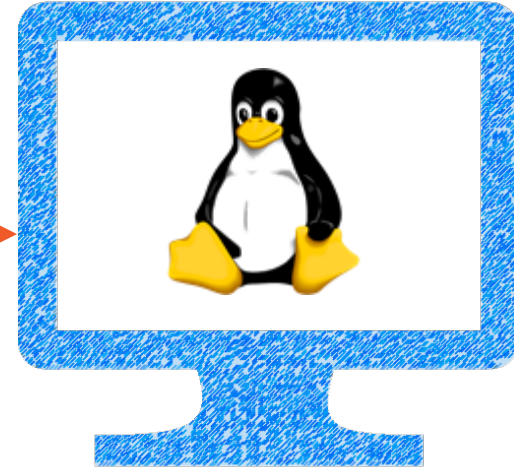
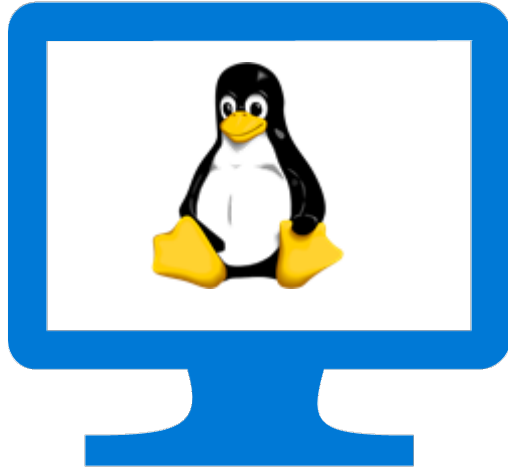
Performance tweaks
Request logging



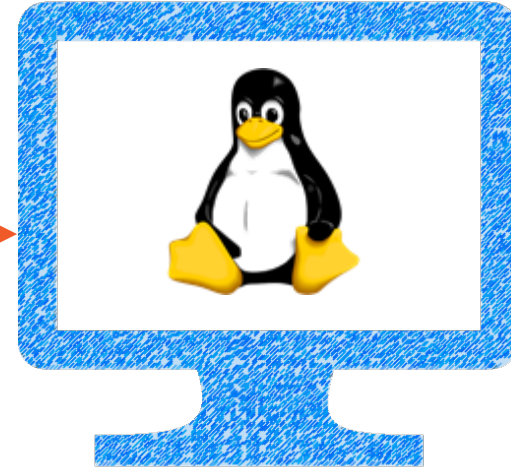
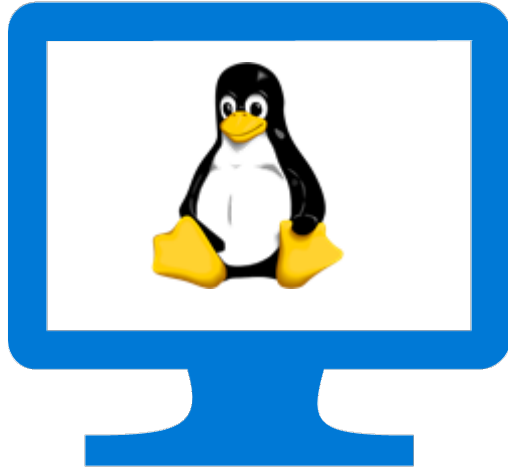
Generalize

Run waagent

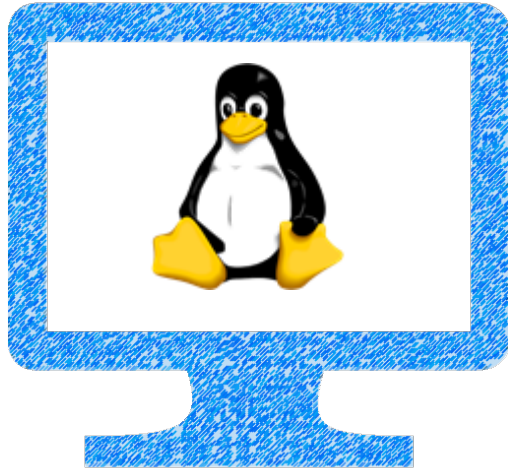
Shut down



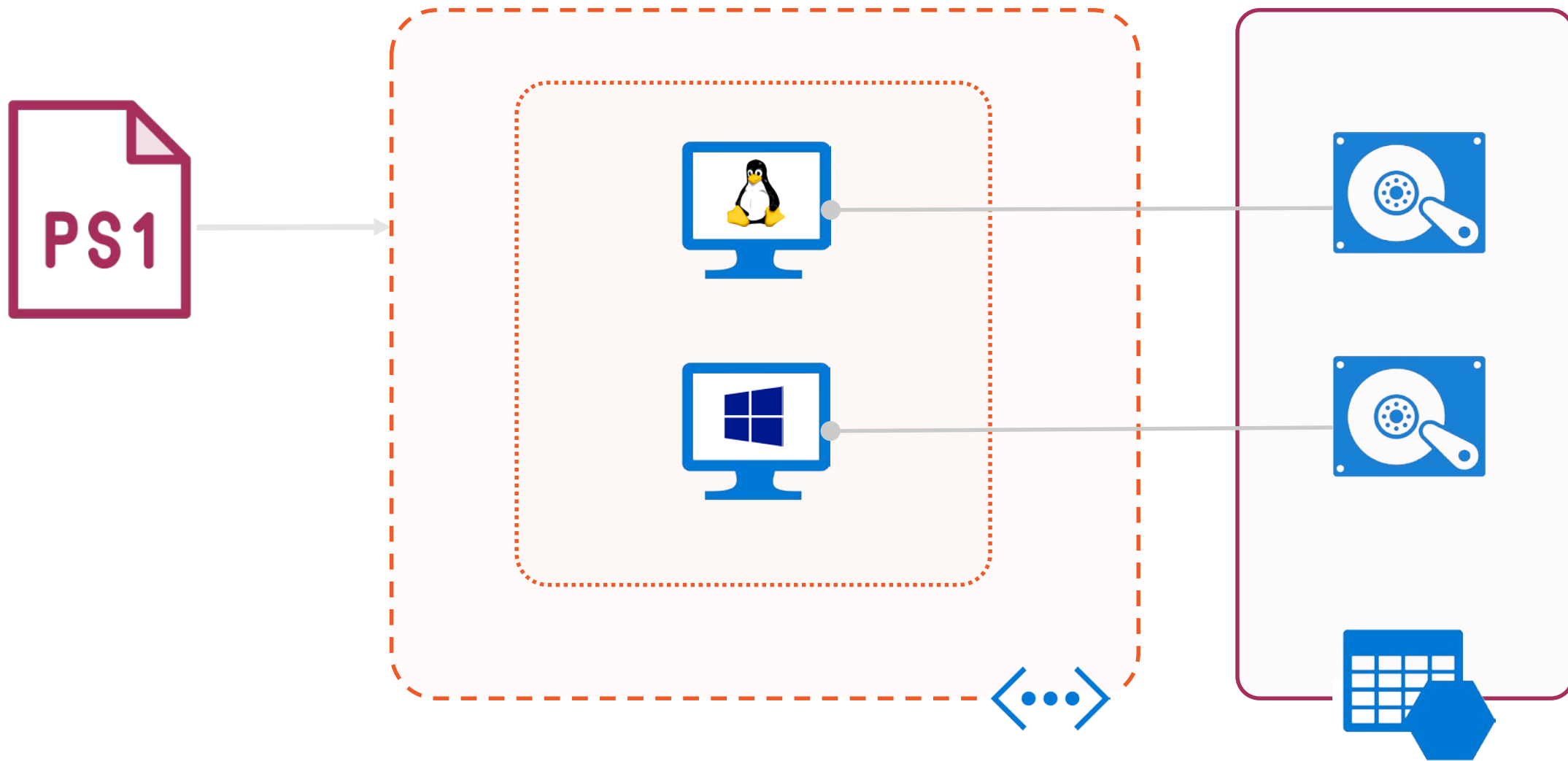
Stop-AzureRmVM

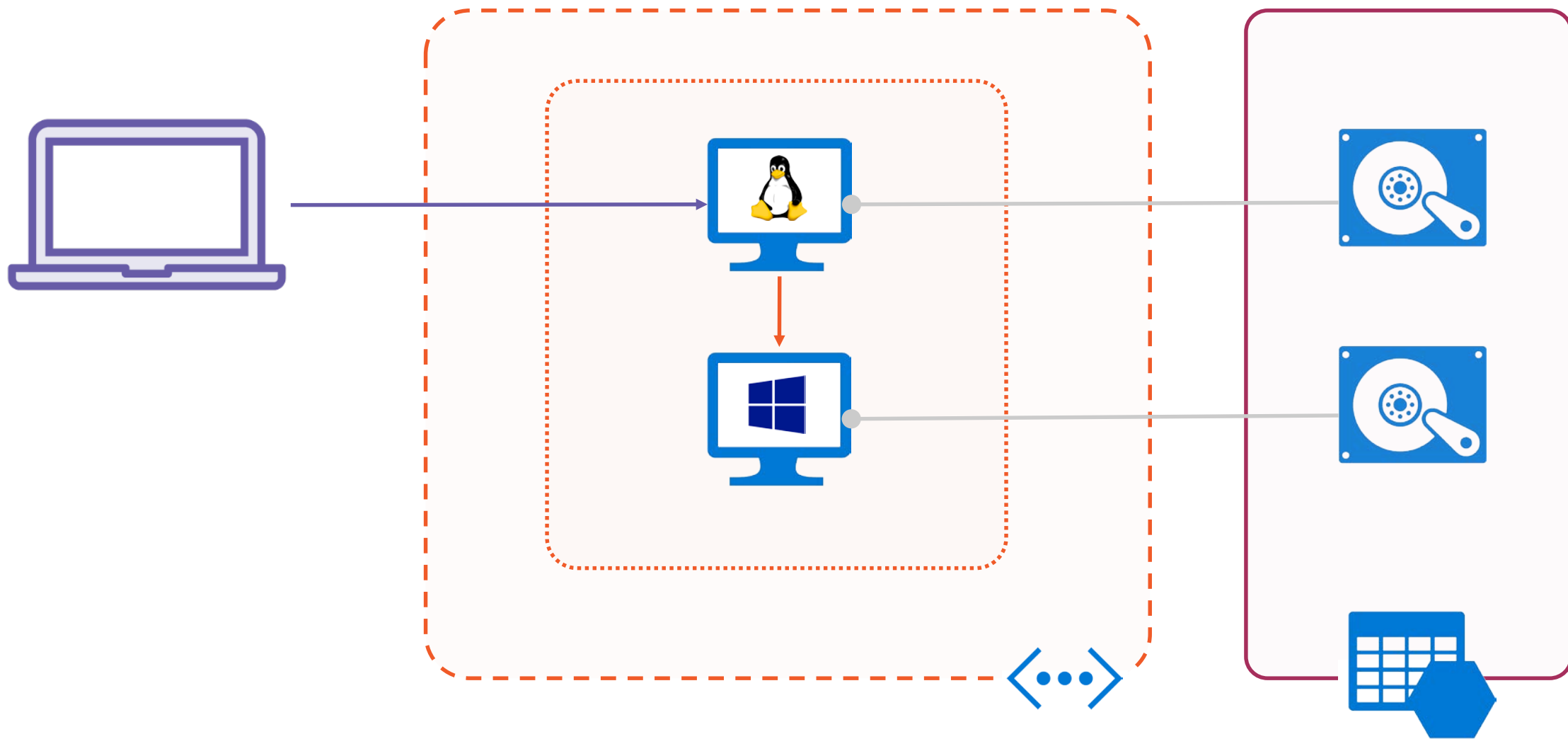


Stop-AzureRmVM
Set-AzureRmVM



Save-AzureRmVMImage



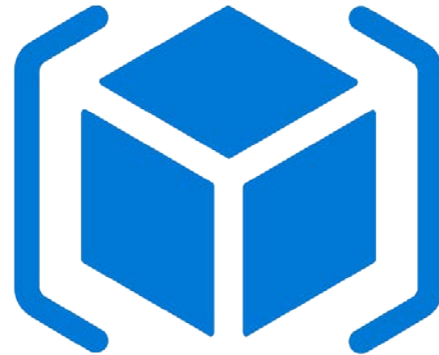


Generalization Gotchas



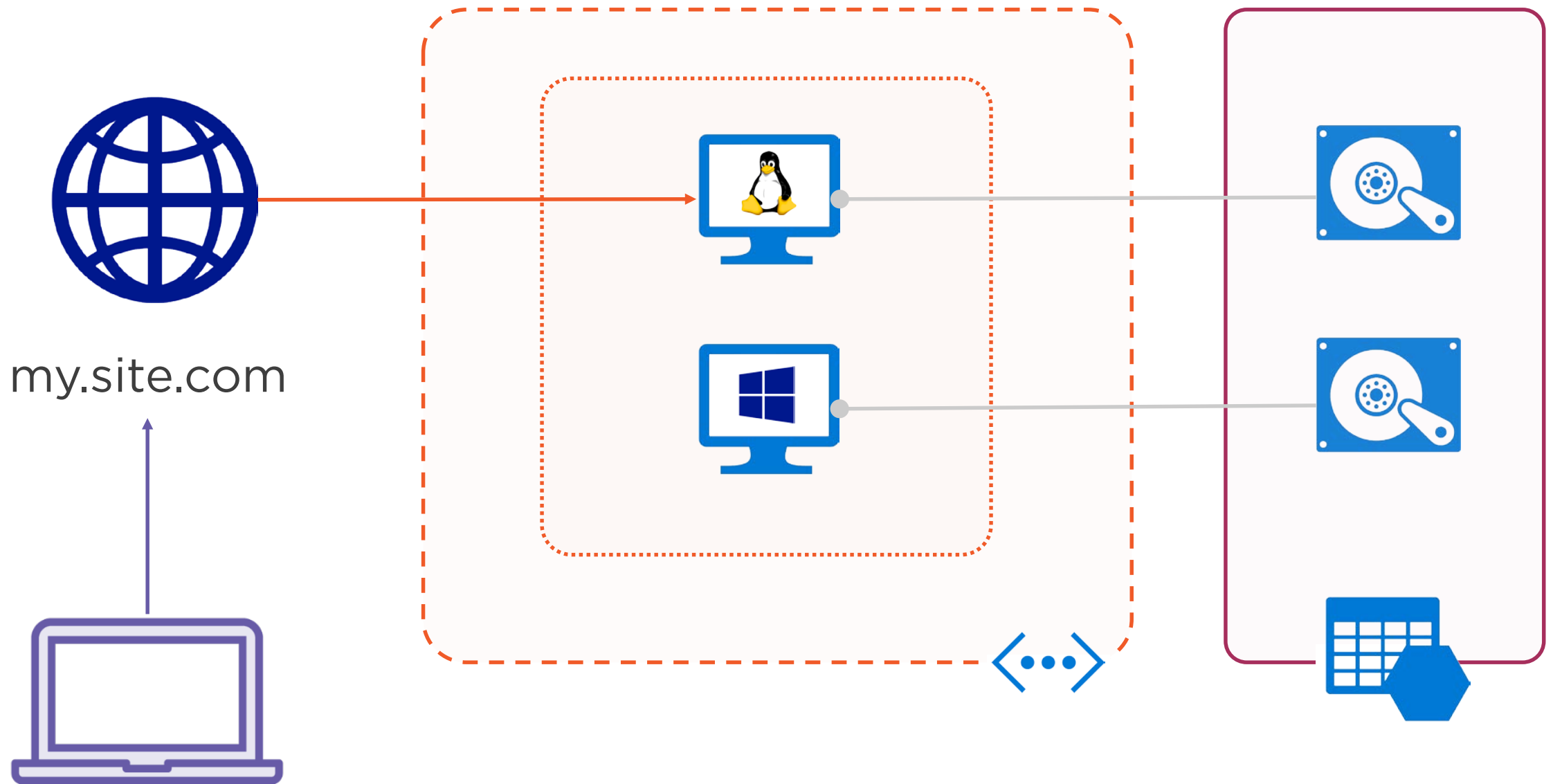
Prepped VM

User data deleted



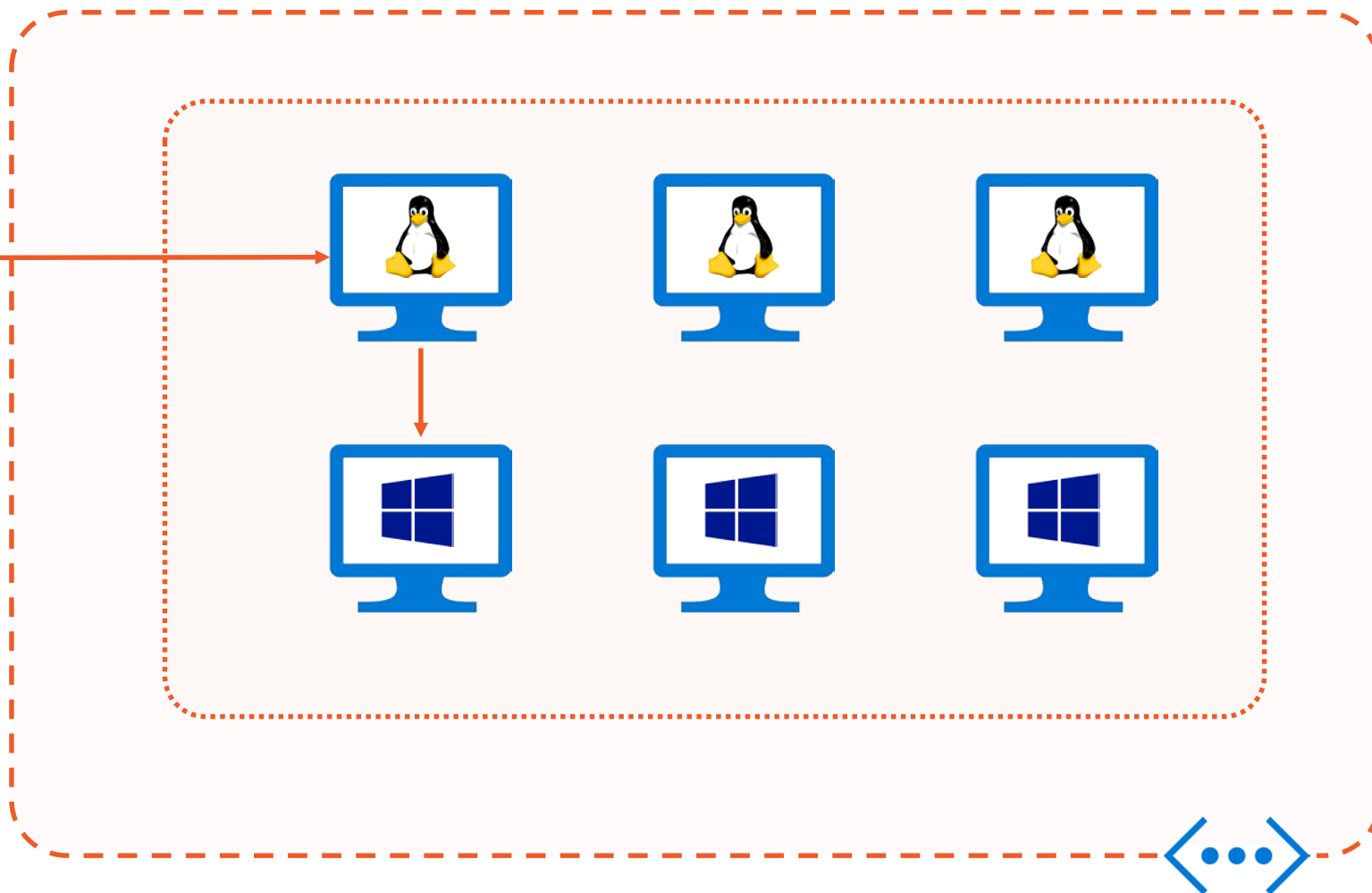
Resource Group

Contains VM images



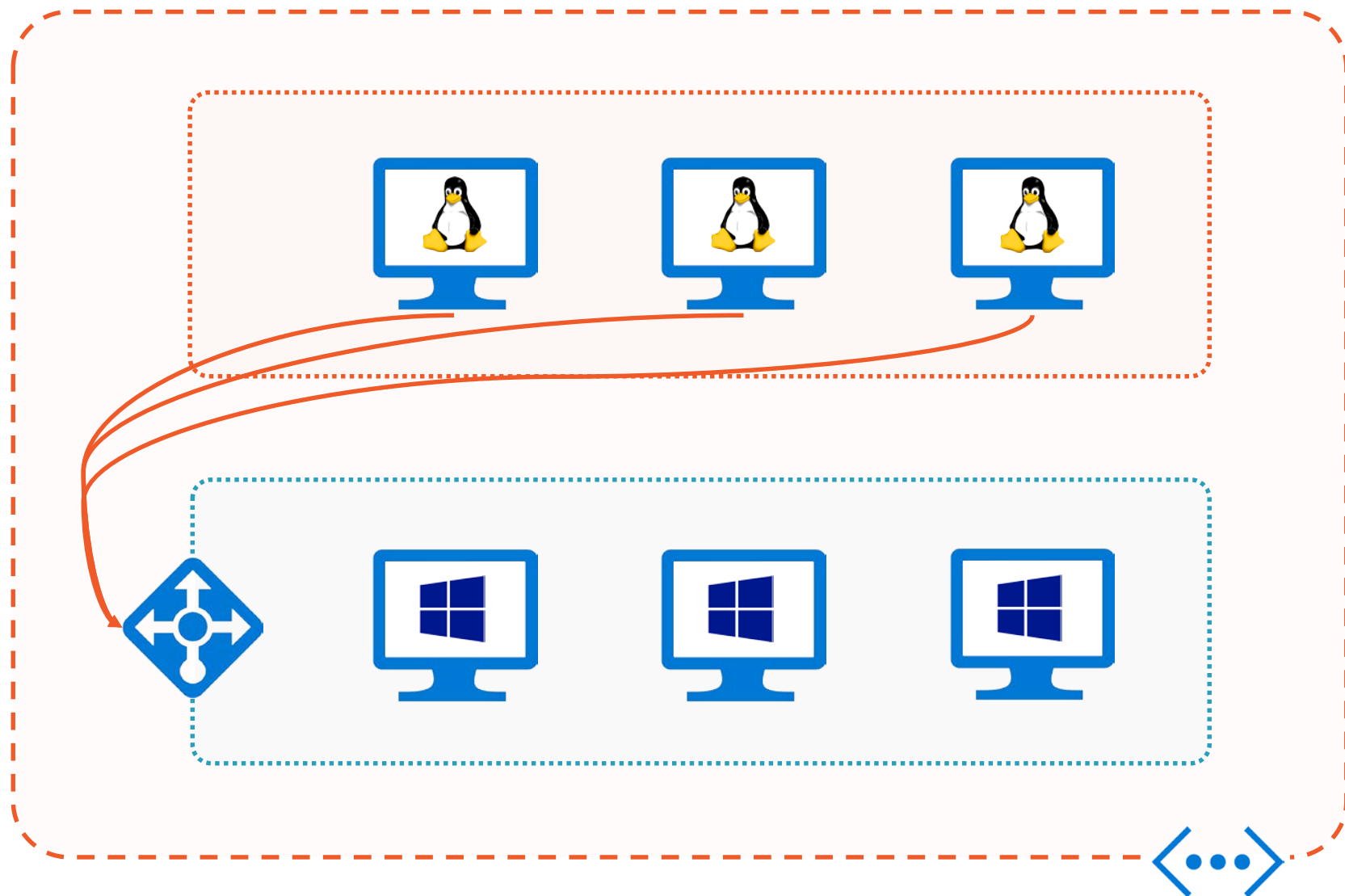


my.site.com



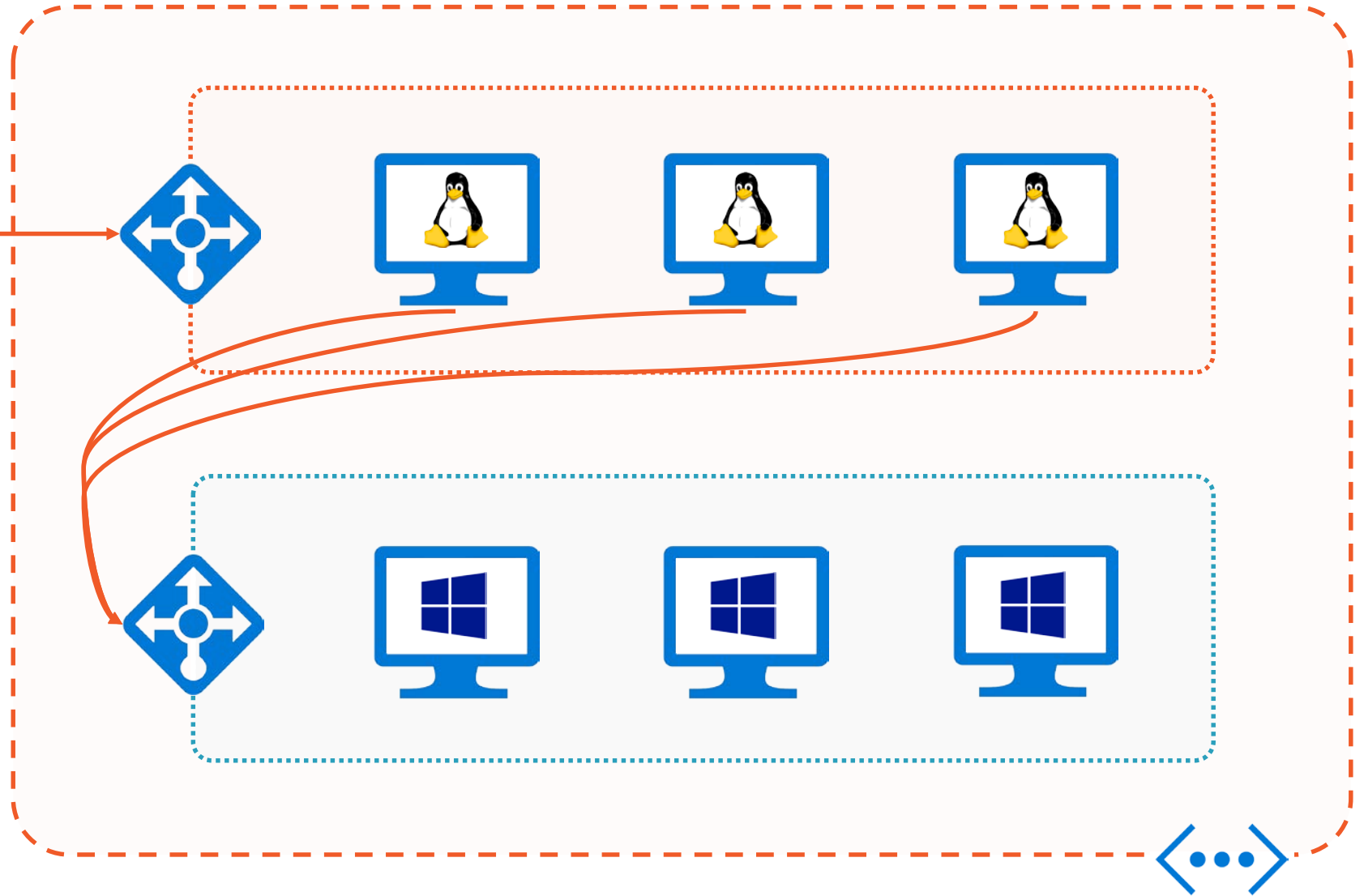


my.site.com





my.site.com



Demo



Create Internal Load Balancer

- Subnet for Windows VMs
- Front and Back End Addresses
- Health Probe

Demo



Create Internet-Facing Load Balancer

- Subnet for Ubuntu VMs
- Front and Back End Addresses
- Health Probe



my.site.com



New-AzureRm

LoadBalancerFrontendIpConfig

◀ Entry point address

New-AzureRm

LoadBalancerBackendAddressPoolConfig

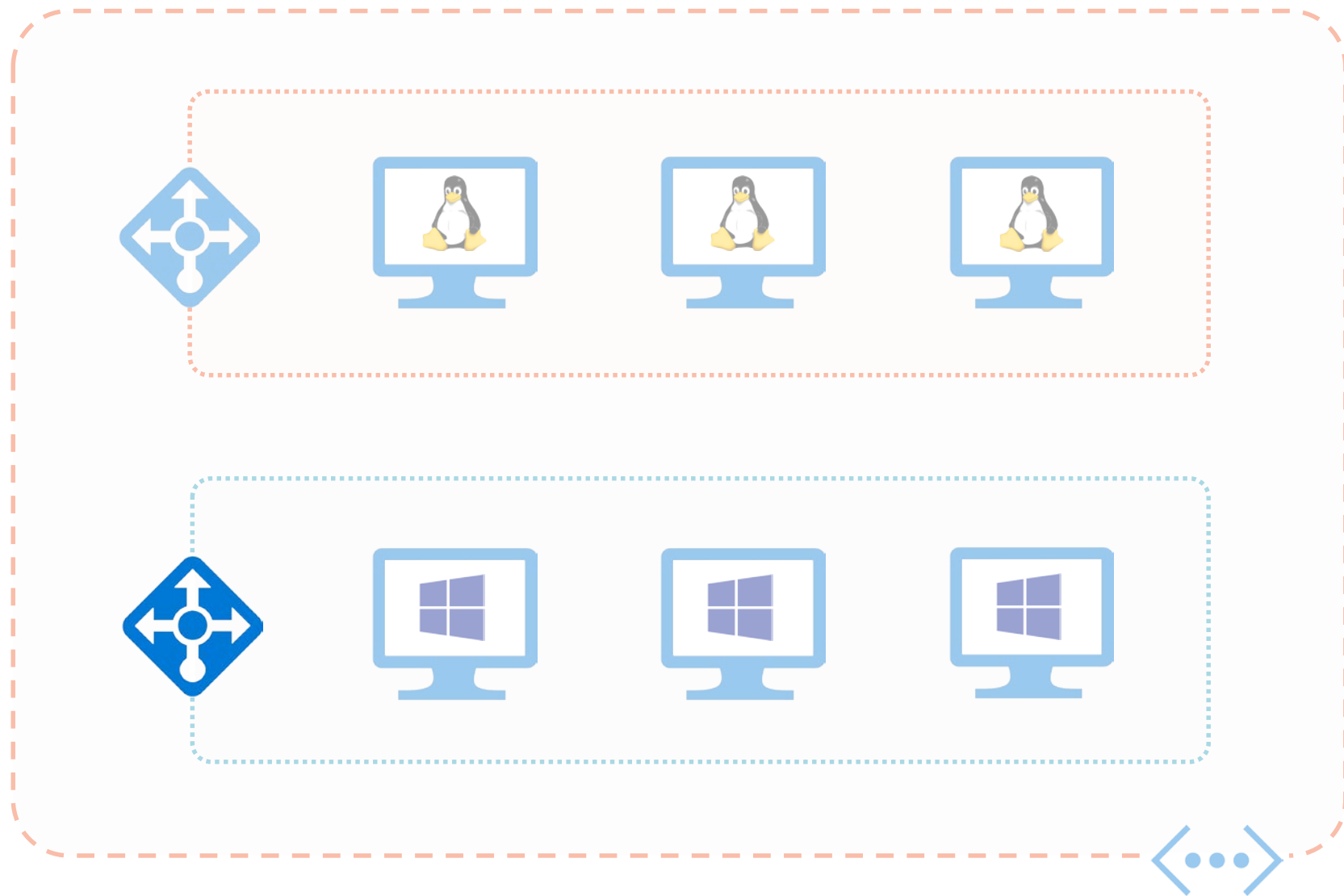
◀ VM address pool

New-AzureRmLoadBalancerProbeConfig

◀ Health probe

New-AzureRmLoadBalancerRuleConfig

◀ Traffic rule



New-AzureRmPublicIpAddress

◀ Static public IP

New-AzureRm

◀ Entry point

LoadBalancerFrontendIpConfig

New-AzureRm

◀ VM address pool

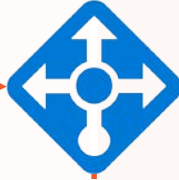
LoadBalancerBackendAddressPoolConfig

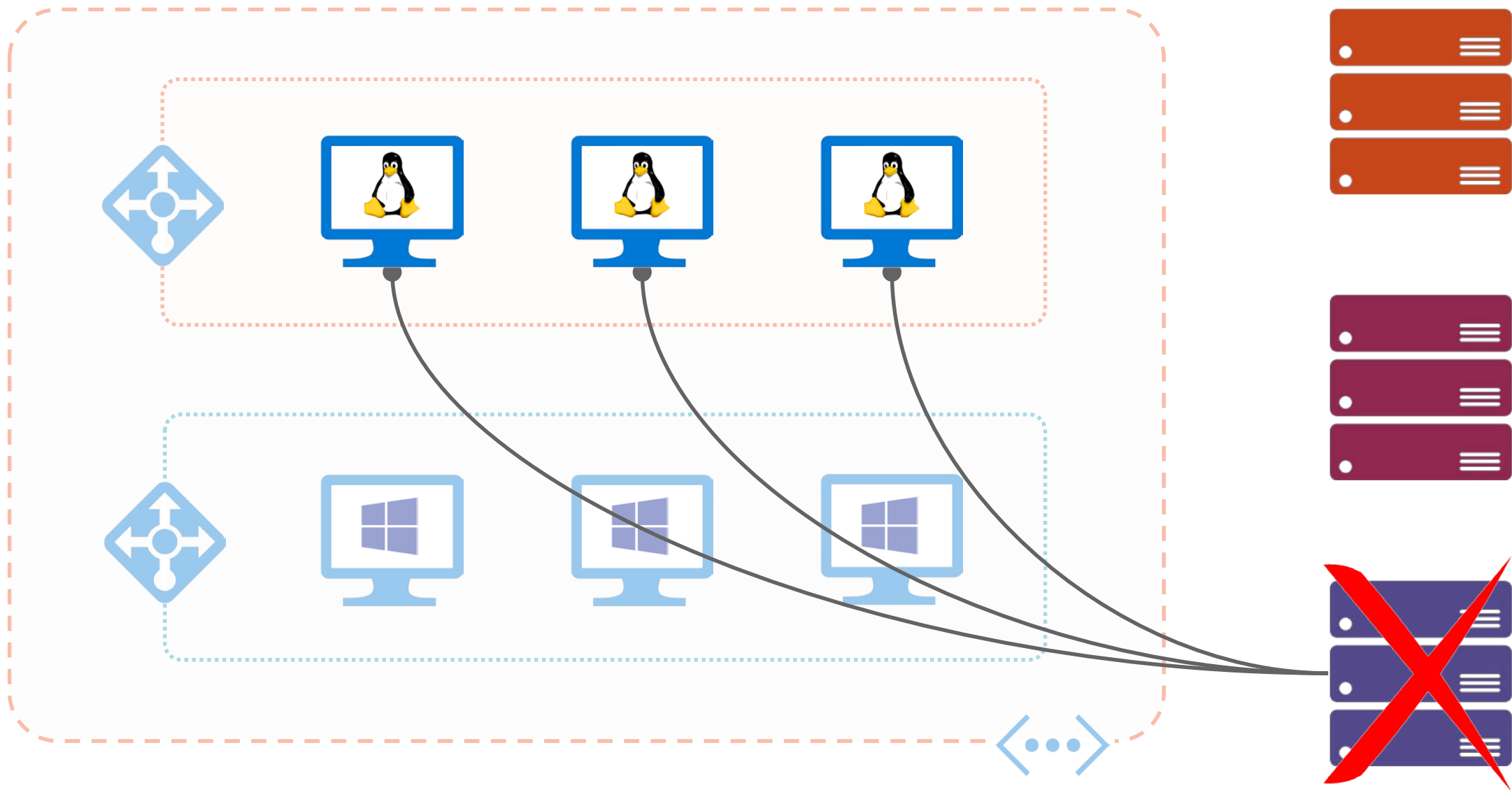
New-AzureRmLoadBalancerProbeConfig

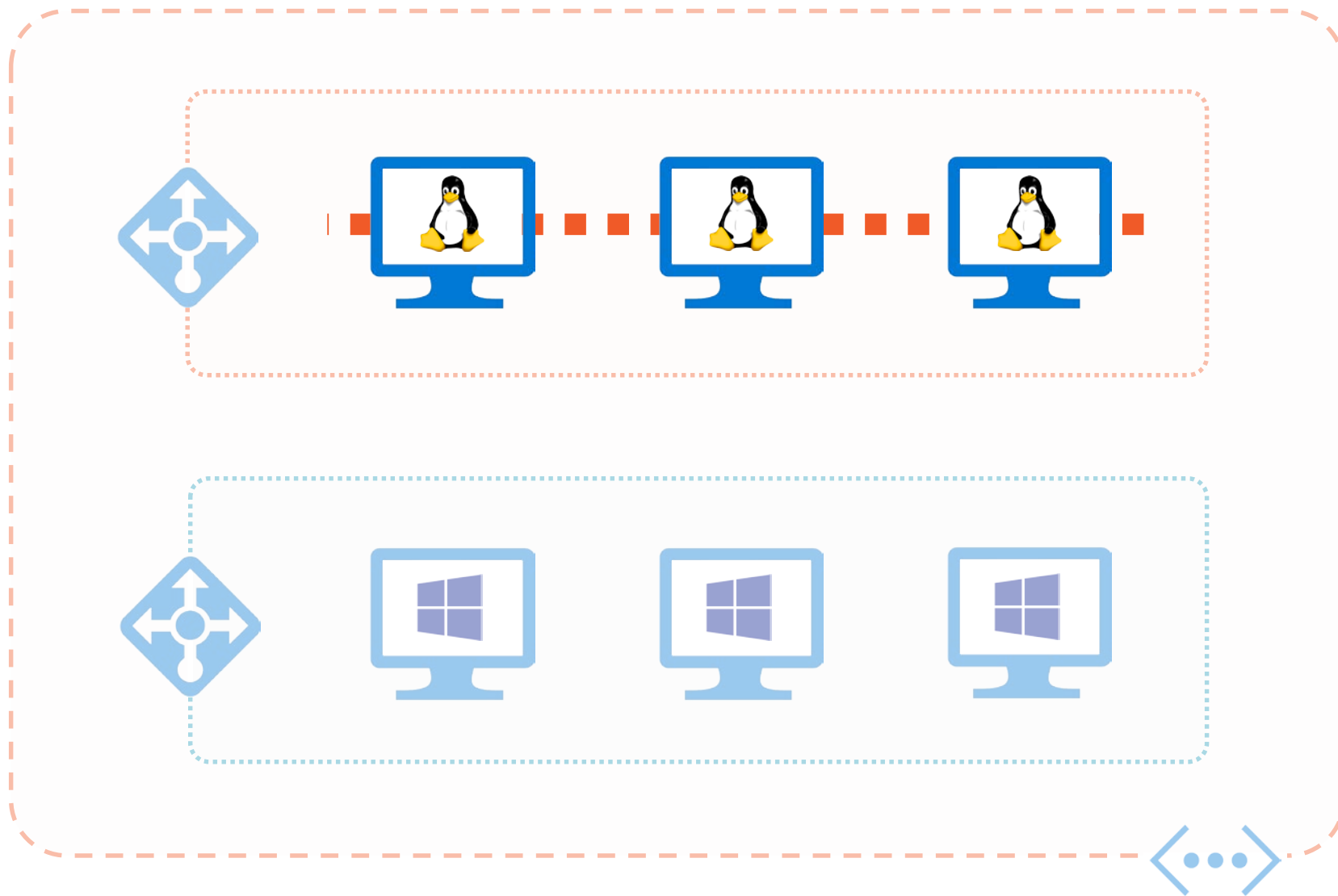
◀ Health probe

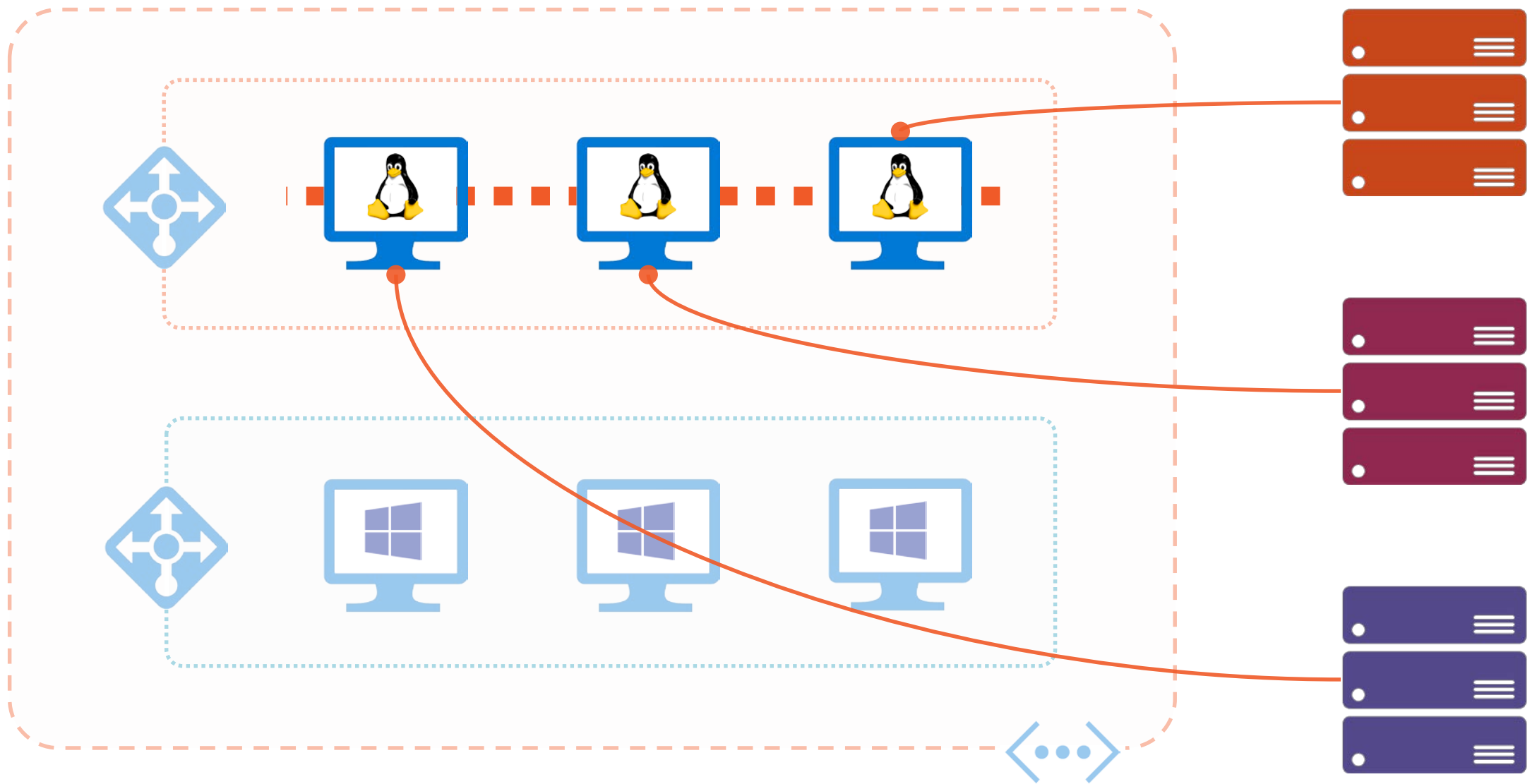


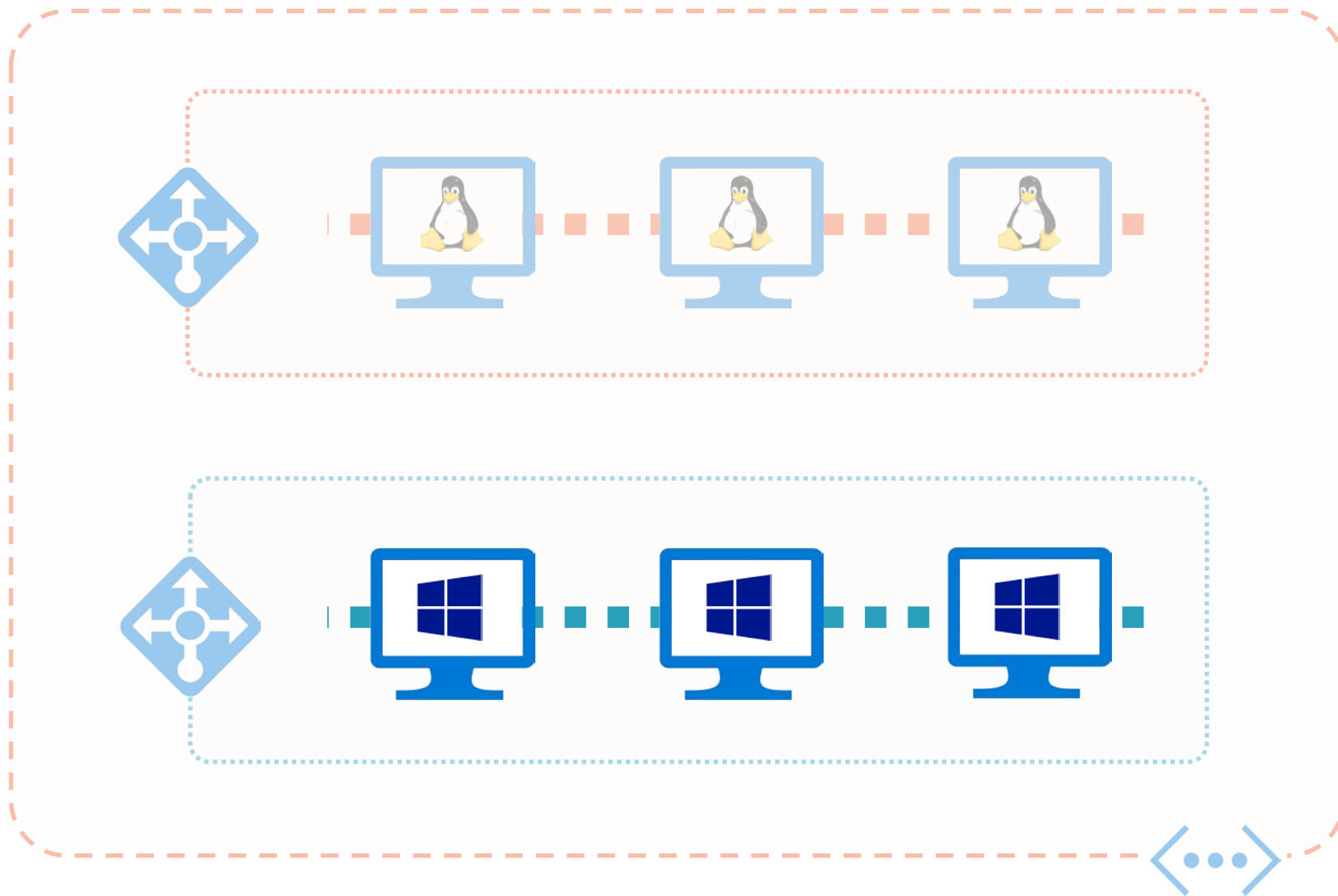
my.site.com

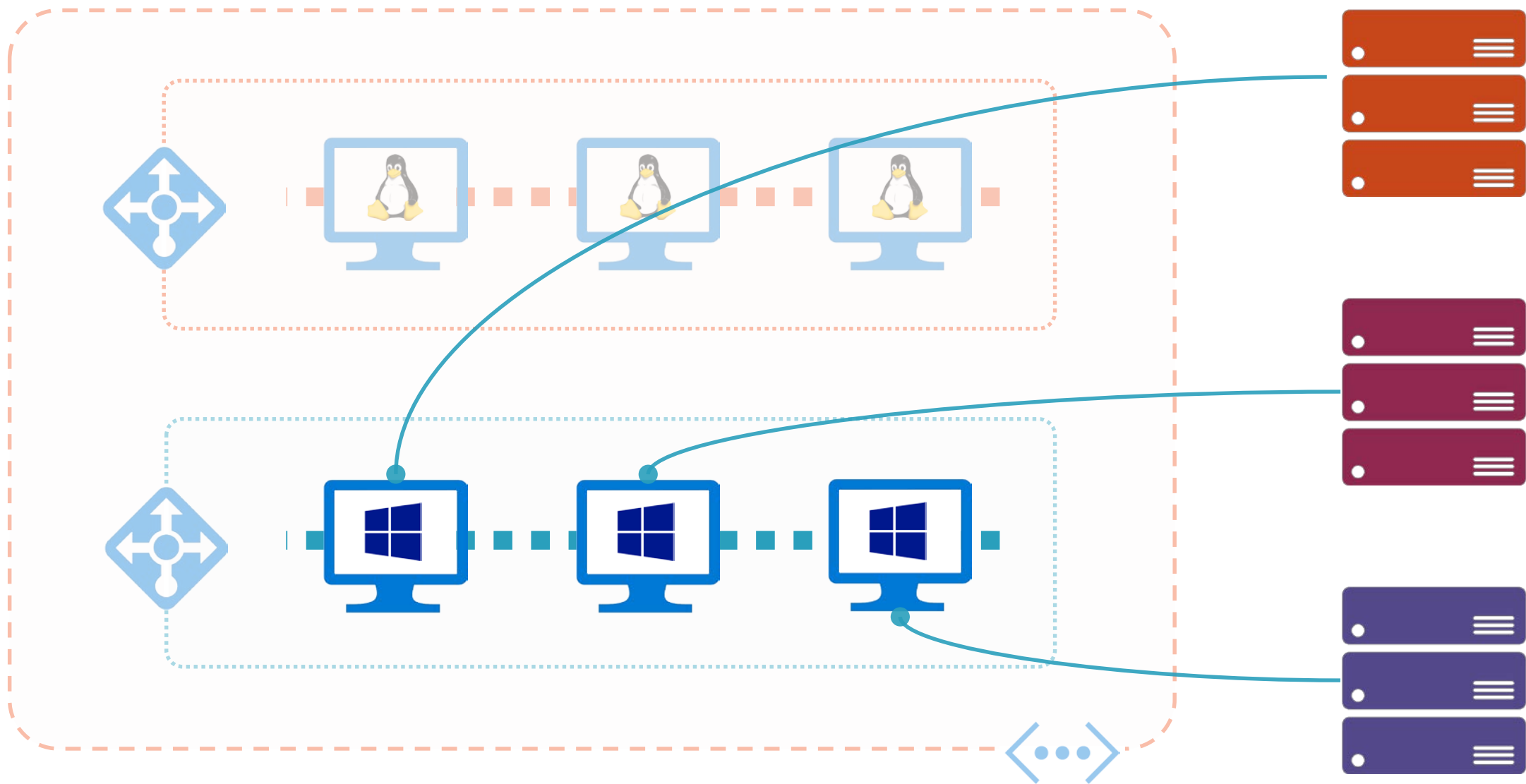












Demo



High Availability & Scale

- Availability Sets
- Connect VMs to Load Balancer
- Create Multiple VMs

Summary



Custom VM images

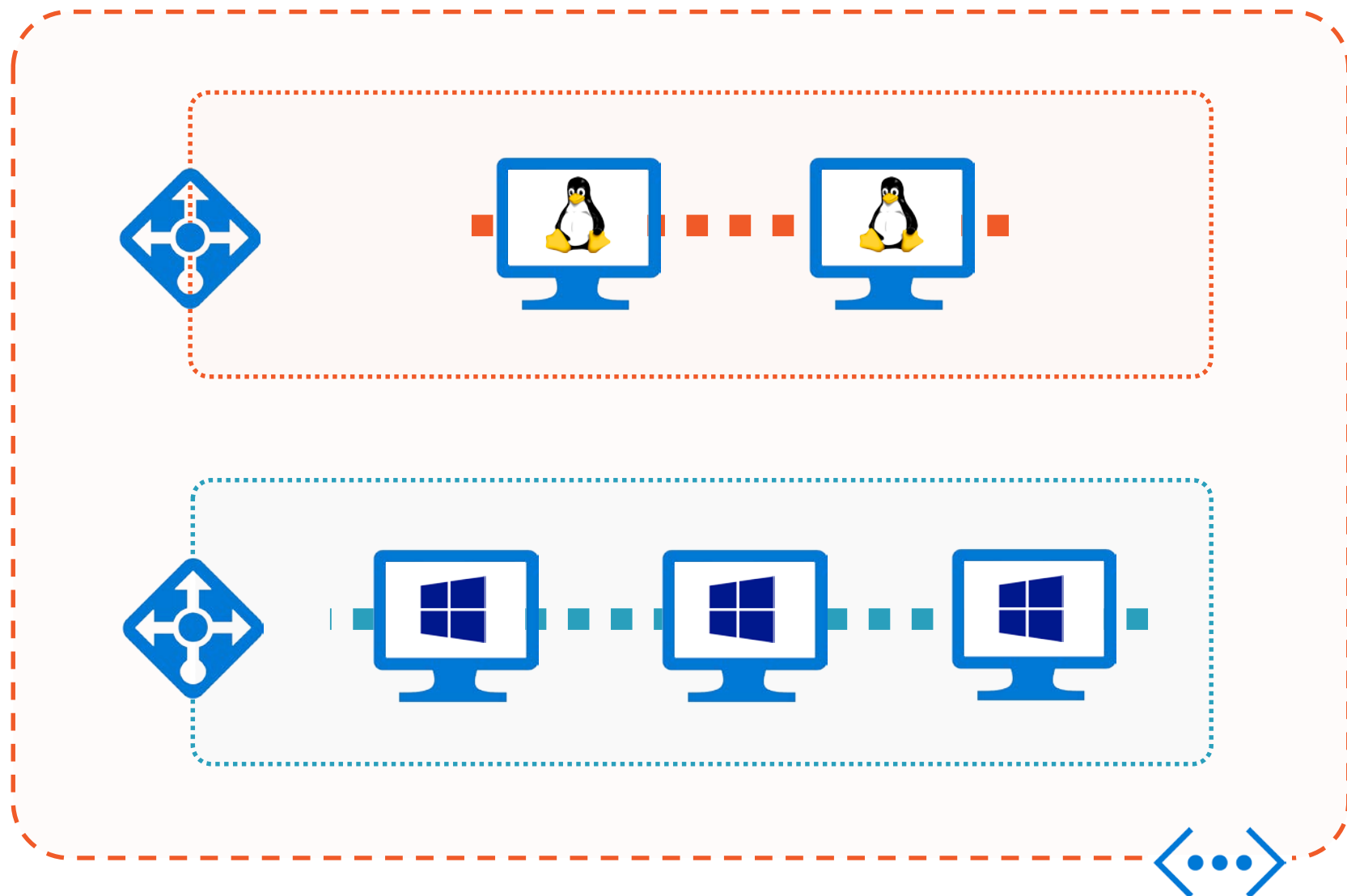
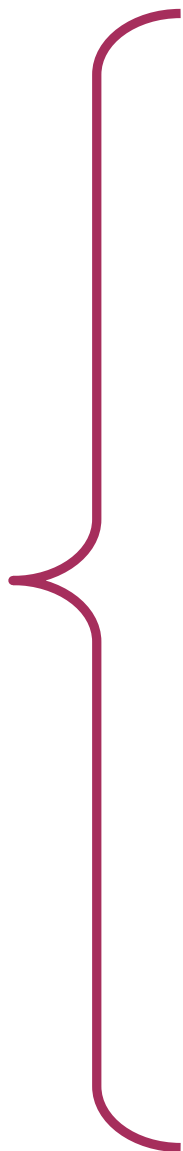
- Install & configure software
- Generalize VM
- Save image

High Availability

- Availability Sets
- 1 per layer

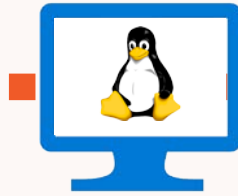
Load Balancing

- Internal & Internet-facing
- 1 per layer

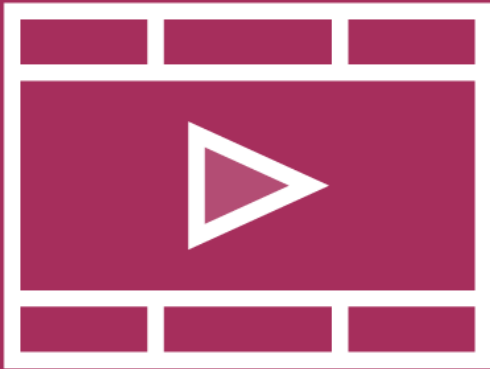




my.site.com



Coming Next



PowerShell Desired State Configuration

- Automate VM setup
- Remote configuration

Azure RM Templates

- Define structure
- Parameterize deployment