

Getting Started with Azure Virtual Machines

GETTING STARTED WITH VMs

WHAT IS A VIRTUAL MACHINE?



Flexibility of virtualization

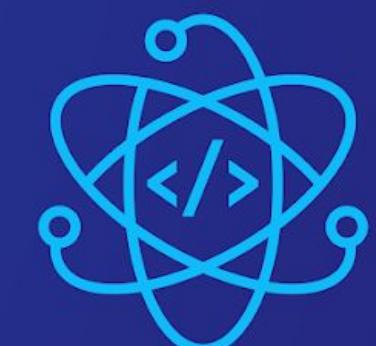
No need to buy or maintain physical hardware

You still have to manage server-associated tasks such as configuration, patch management, and software installation

GETTING STARTED WITH VMs

WHAT IS A VIRTUAL MACHINE?

Azure VMs are often used to deploy development and test environments



GETTING STARTED WITH VMs

WHAT IS A VIRTUAL MACHINE?

Azure VMs are often used to deploy development and test environments

Organizations use pay-as-you-go to host apps in Azure



X 5

ADD TO CART



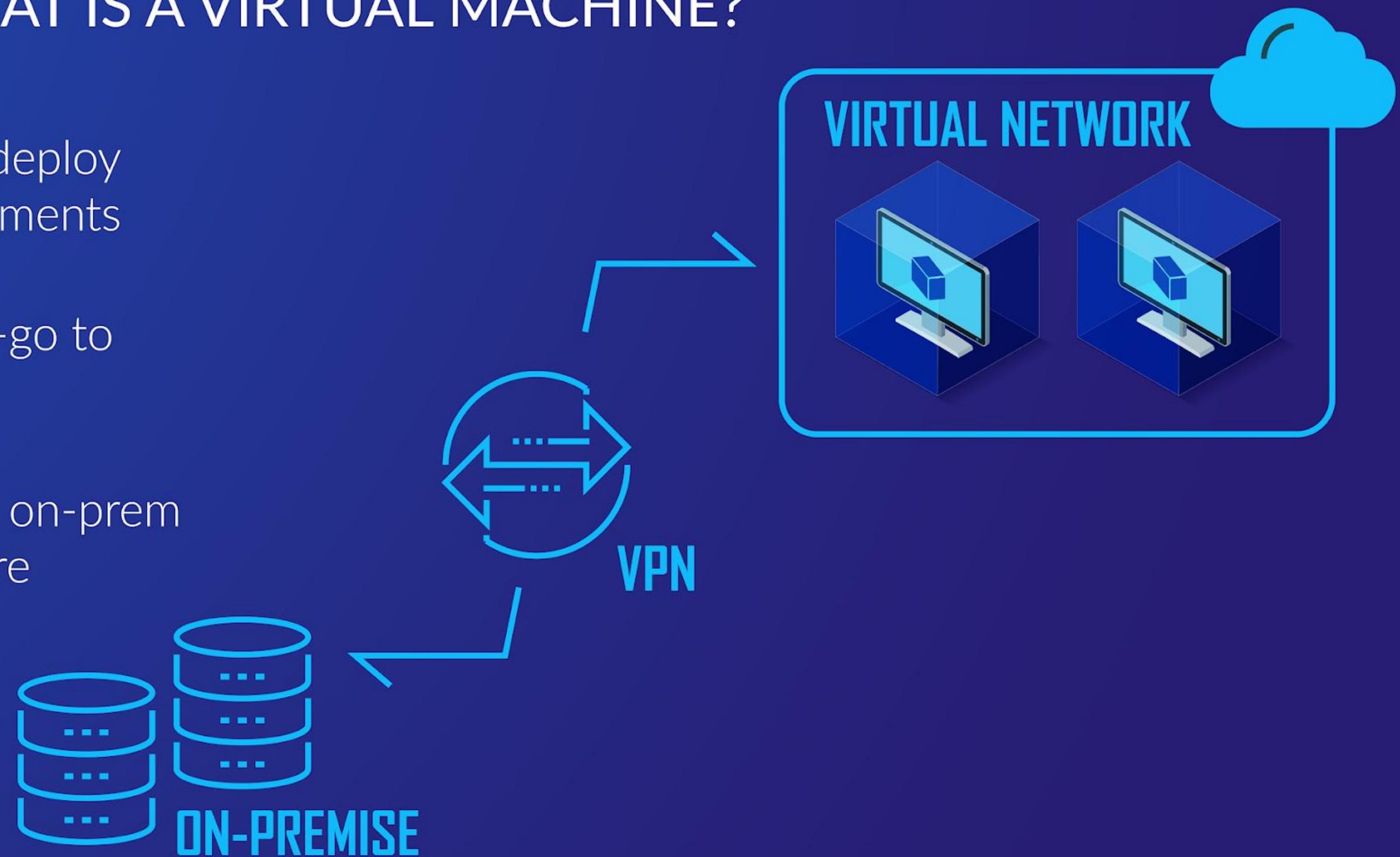
GETTING STARTED WITH VMs

WHAT IS A VIRTUAL MACHINE?

Azure VMs are often used to deploy development and test environments

Organizations use pay-as-you-go to host apps in Azure

VMs are often used to extend on-prem data centers to Microsoft Azure



GETTING STARTED WITH VMs

WHAT IS A VIRTUAL MACHINE?

VM naming conventions

Deployment location

VM sizing requirements

Quantity of VMs needed

OS requirements

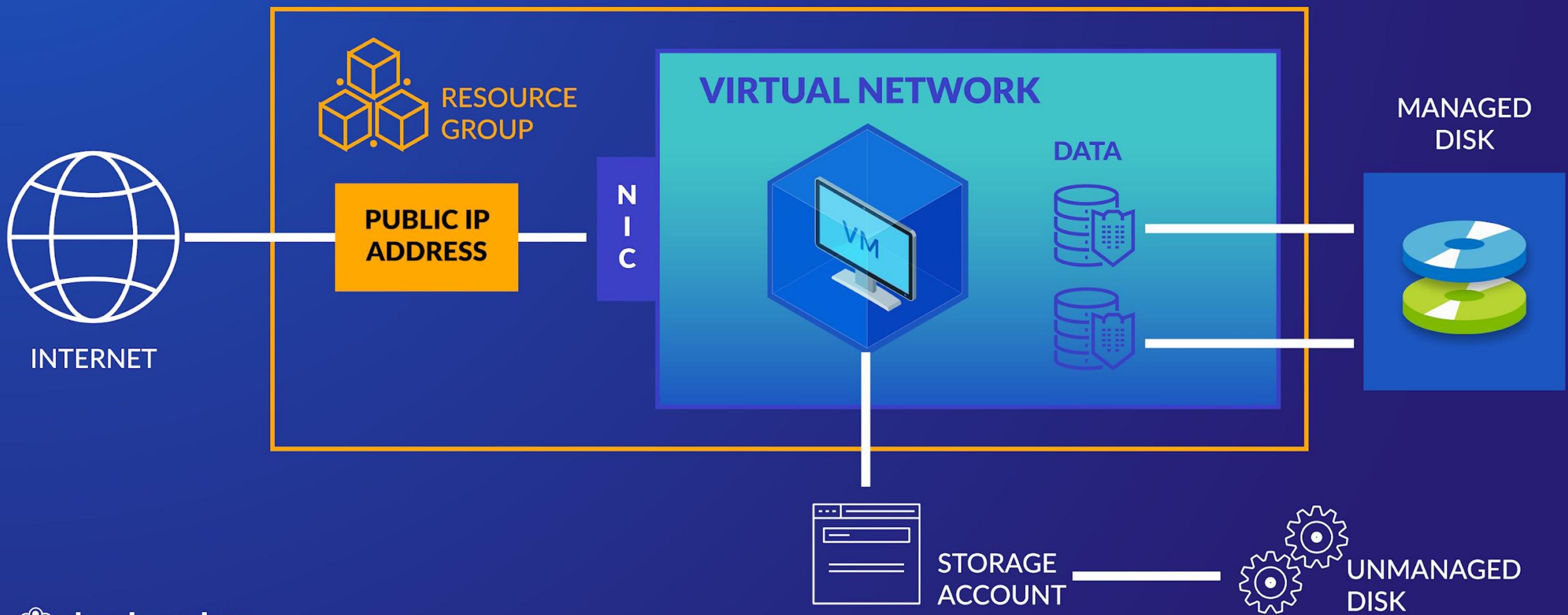
VM configuration



CONSIDERATIONS:

GETTING STARTED WITH VMs

RELATED RESOURCES



GETTING STARTED WITH VMs: AZURE VM PRICING

GETTING STARTED WITH VMs

AZURE VM PRICING

PAY-AS-YOU-GO

- Pay by the second
- No long-term commitment
- No upfront payments
- Increase/decrease capacity as needed
- Pay only for what you use
- Low cost and flexible option

RESERVED VM INSTANCES

- An advanced purchase
- 1-year or 3-year commitment
- Upfront payment (up to 72% cheaper than pay-as-you-go)
- Best option if you have applications with steady-state usage
- Offers budget predictability

SPOT PRICING

- Purchase unused compute capacity
- Up to 90% cheaper than pay-as-you-go
- Workloads run on spot instances must tolerate interruptions
- A good option if you are running interruptible applications
- Very low compute costs

GETTING STARTED WITH VMs: VIRTUAL MACHINE OPTIONS

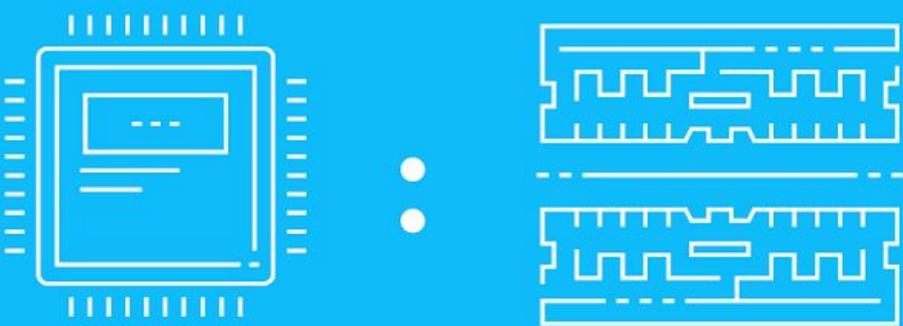
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VIRTUAL MACHINE OPTIONS



GENERAL PURPOSE

Balanced CPU to memory ratio



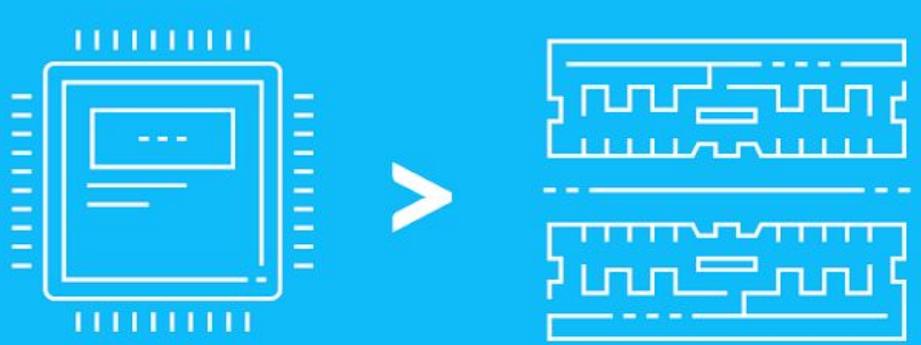
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VIRTUAL MACHINE OPTIONS



COMPUTE OPTIMIZED

High CPU to memory ratio



The diagram consists of a central blue rounded rectangle containing the title 'COMPUTE OPTIMIZED' and the text 'High CPU to memory ratio'. Below this text is a white icon of a central processing unit (CPU). To the right of the CPU is a white right-pointing arrow. Following the arrow are two white icons representing memory, each consisting of a series of vertical bars of varying heights.



GETTING STARTED WITH VMs

VIRTUAL MACHINE OPTIONS



MEMORY OPTIMIZED

High memory to core ratio

A blue callout box contains the text "MEMORY OPTIMIZED" and "High memory to core ratio". Below this text is a diagram showing two RAM modules on the left, a right-pointing arrow, and a database icon with multiple lines representing data connections on the right. The entire callout box is supported by a white pedestal at the bottom.

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VIRTUAL MACHINE OPTIONS



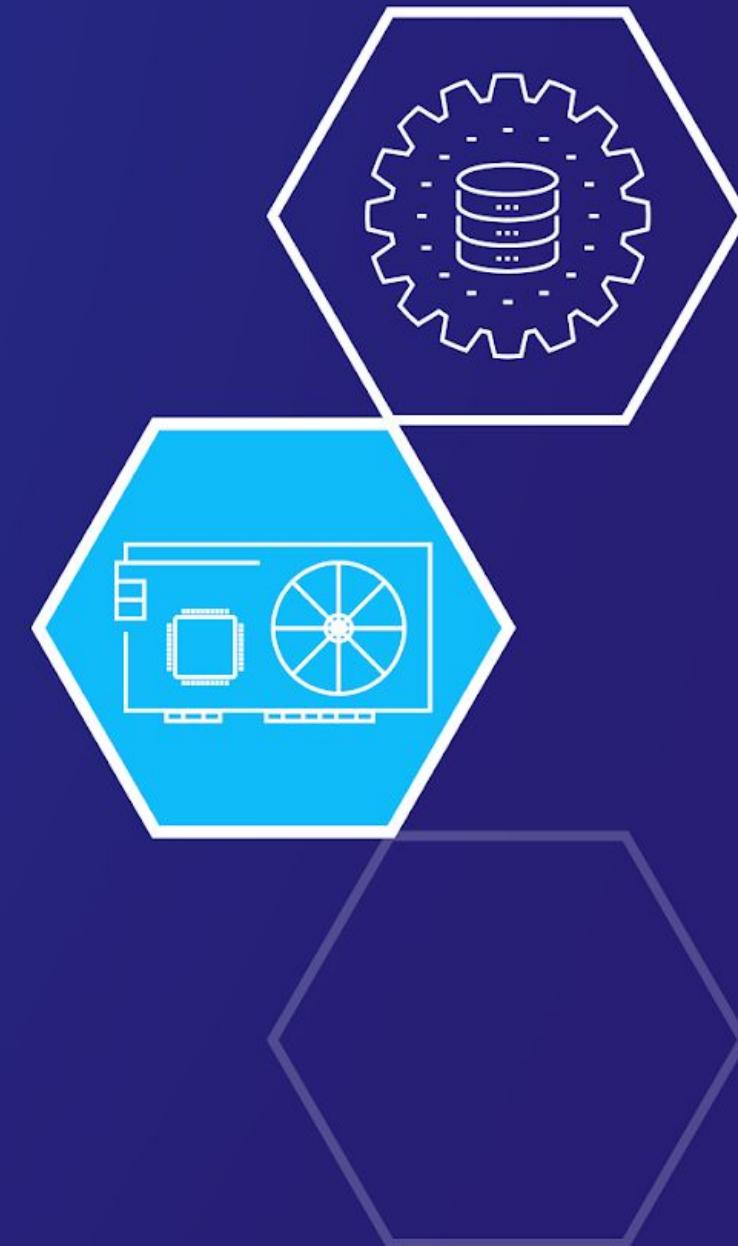
GETTING STARTED WITH VMs

VIRTUAL MACHINE OPTIONS



GPU

Specialized for heavy graphic rendering and video editing

A white-outlined icon of a computer monitor displaying a 3D rendering of a room with a chair and a table.

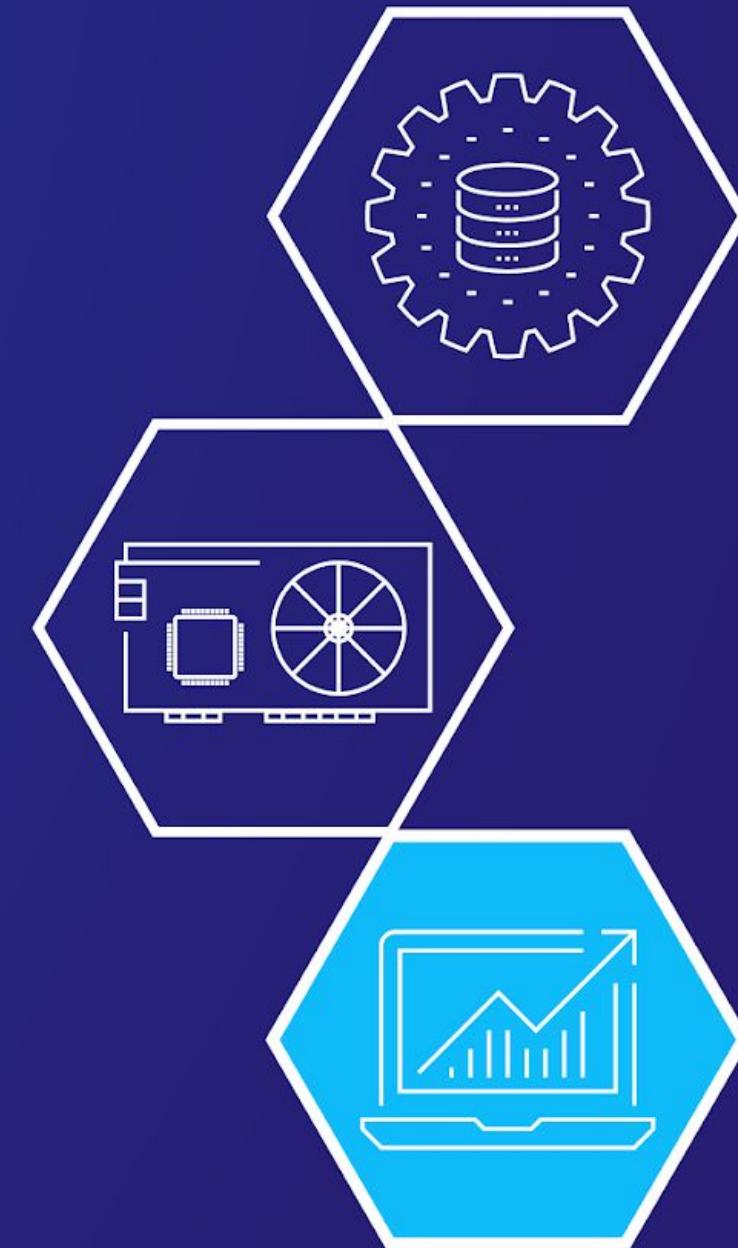
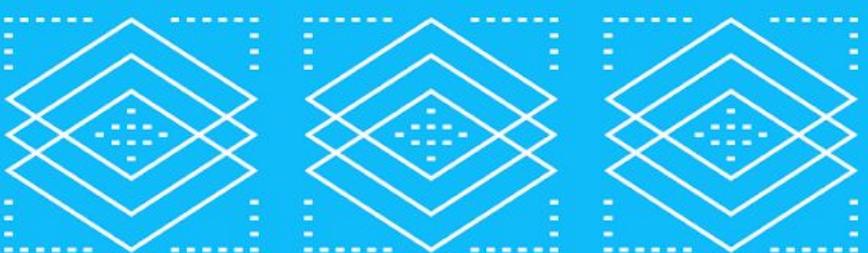
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VIRTUAL MACHINE OPTIONS



HIGH PERFORMANCE COMPUTE

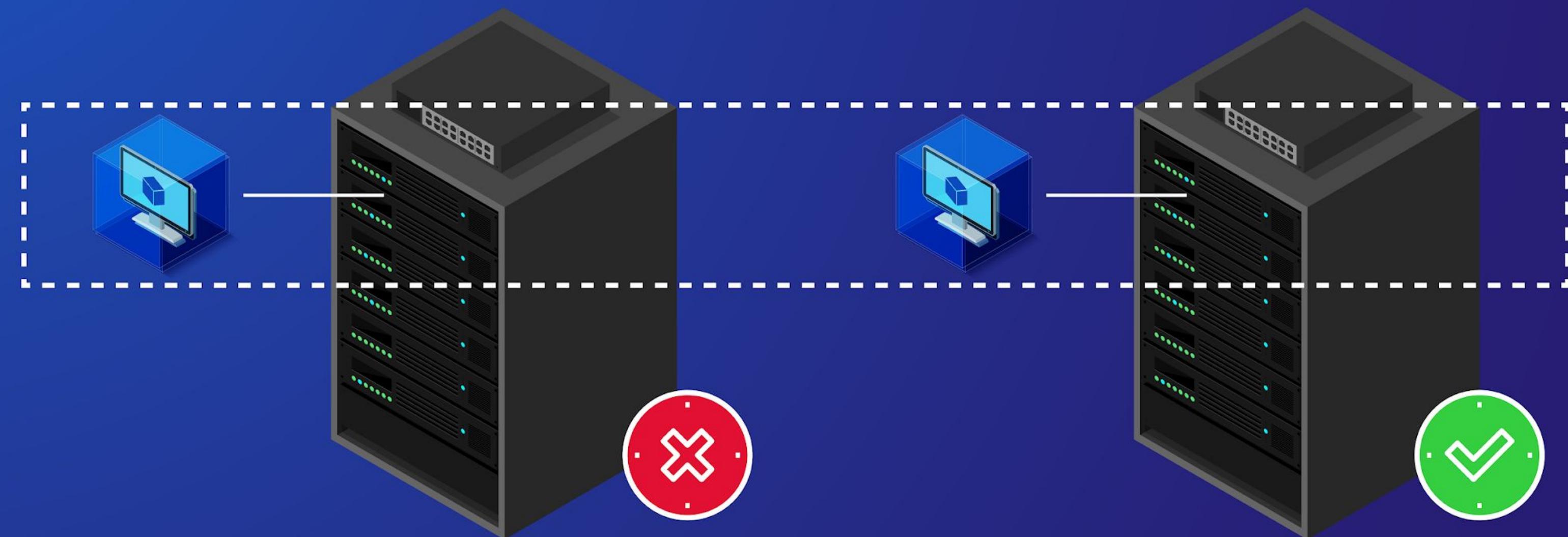
Designed to handle high performance compute workloads



HIGH AVAILABILITY FEATURES

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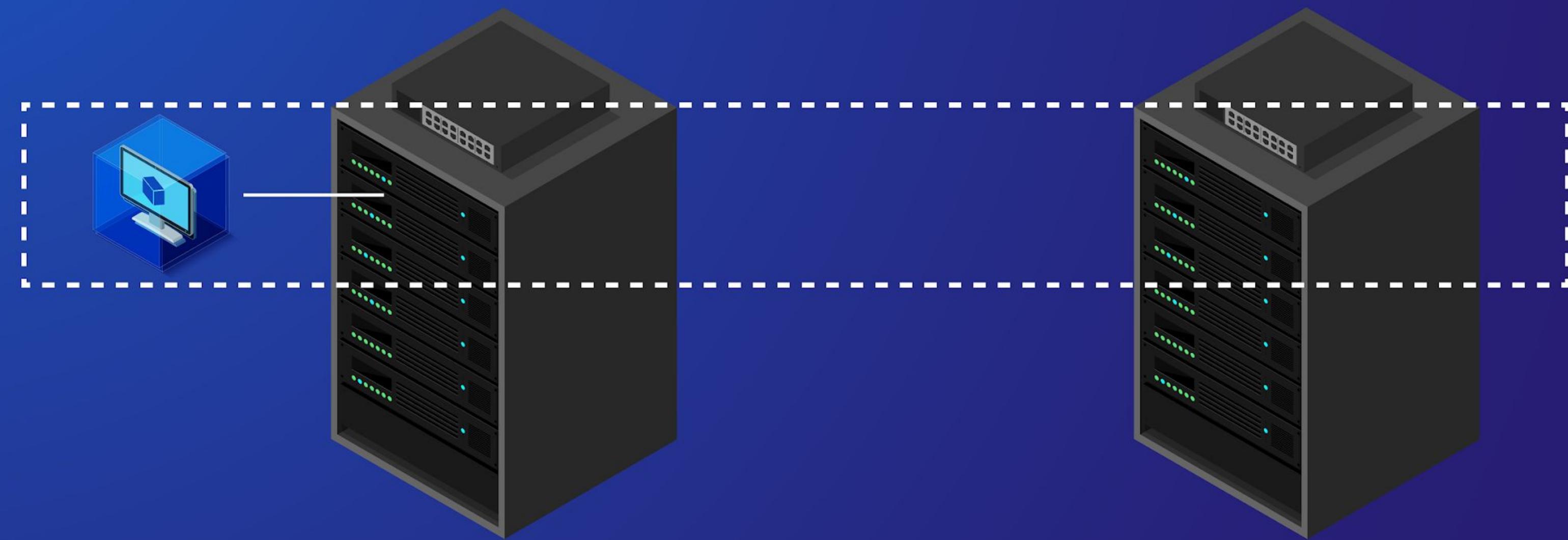
AVAILABILITY SETS



2+ VMs in an availability set = VM SLA of 99.95% uptime

HIGH AVAILABILITY FEATURES

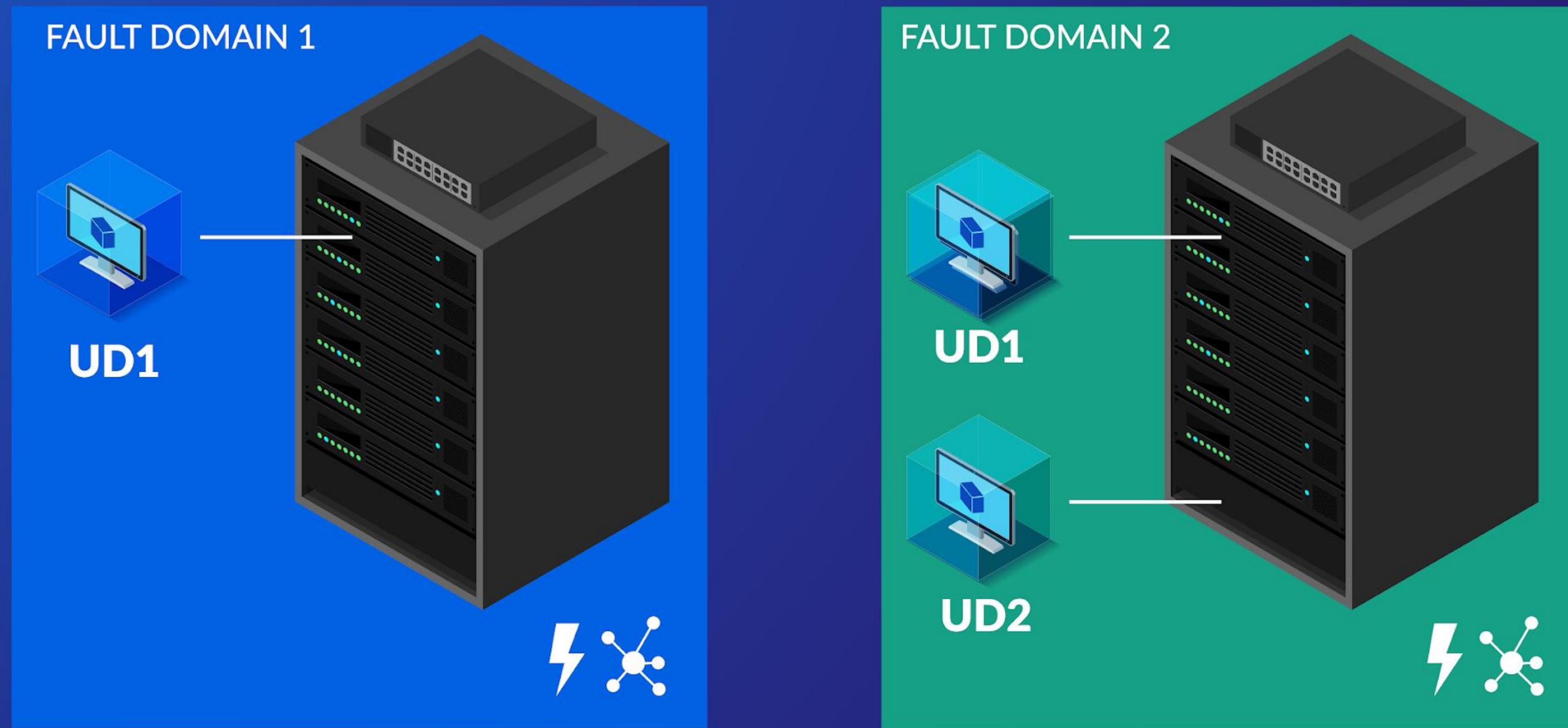
AVAILABILITY SETS



1 VM in an availability set = VM SLA of 99.95% uptime
(if you use premium SSD or ultra-disk for all OS disks and data disks attached to the VM)

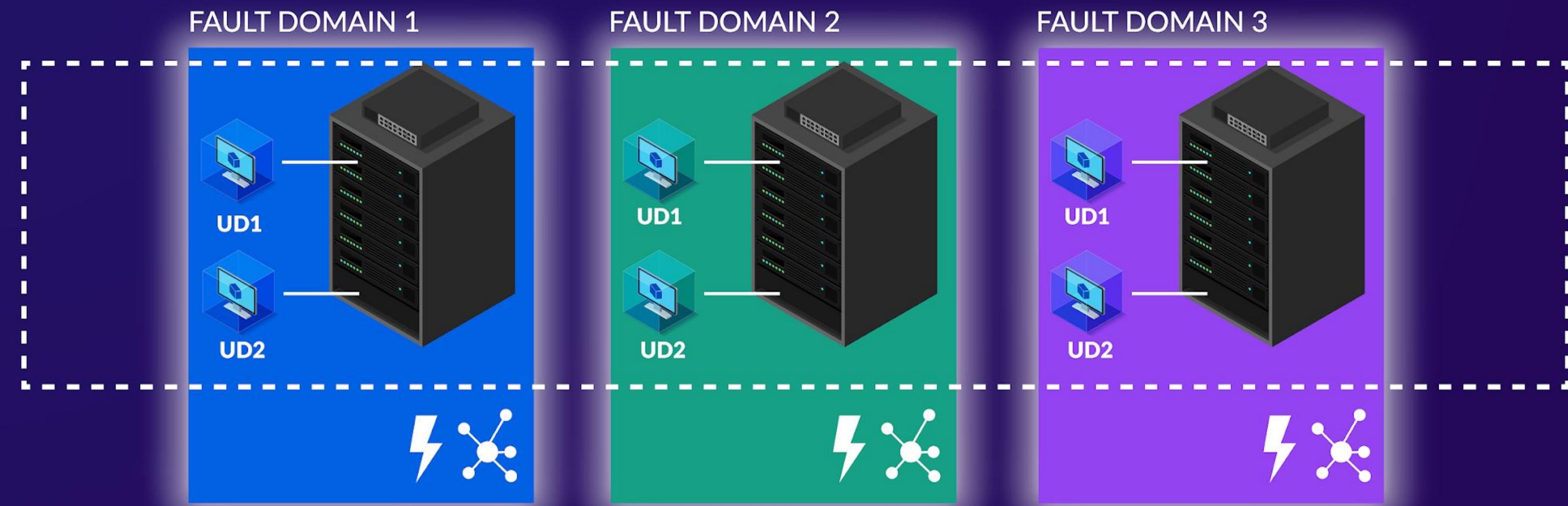
HIGH AVAILABILITY FEATURES

AVAILABILITY SETS



HIGH AVAILABILITY FEATURES

AVAILABILITY SETS



Availability Sets Protect VMs from Hardware Failures Within Azure Datacenters

HIGH AVAILABILITY FEATURES

AVAILABILITY SETS

AVAILABILITY SET



PROTECT APPS FROM HARDWARE FAILURE WITH AZURE DATACENTER

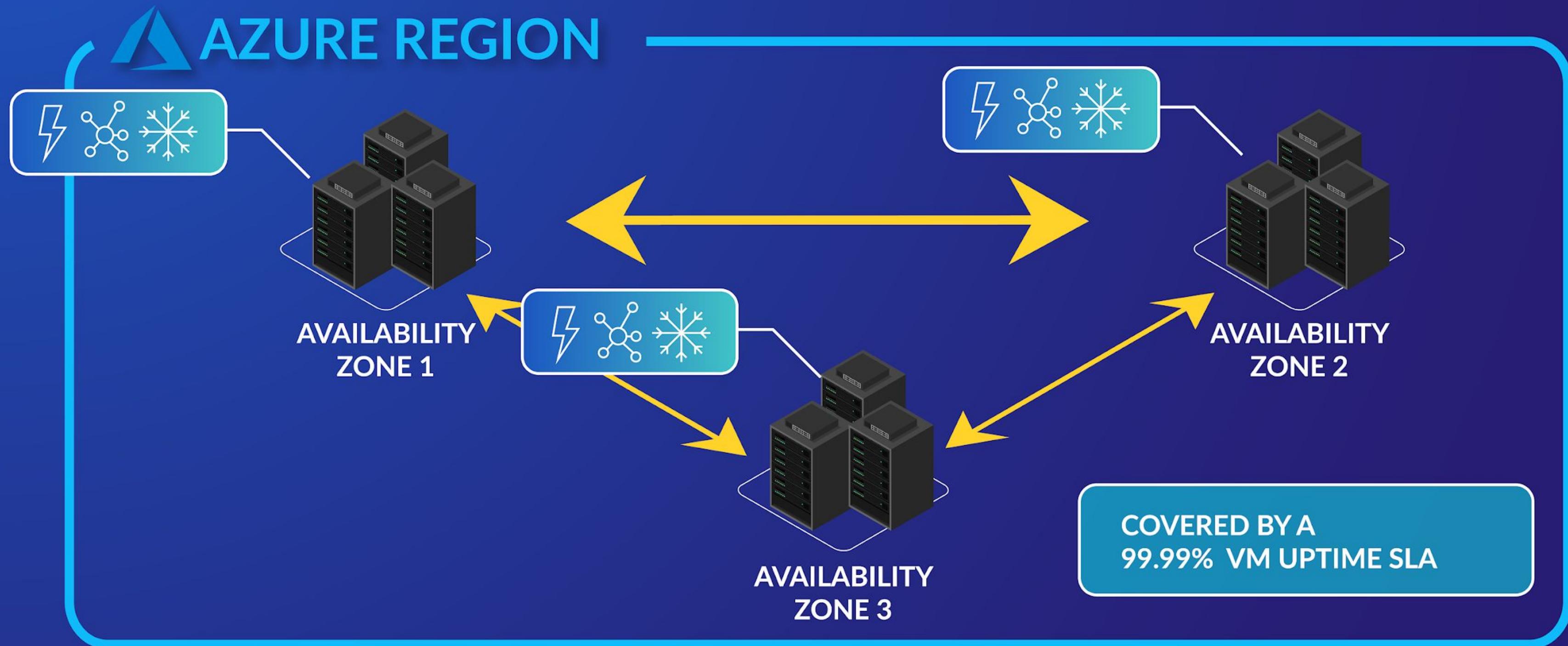
AVAILABILITY ZONE



PROTECT APPS FROM COMPLETE AZURE DATACENTER FAILURE

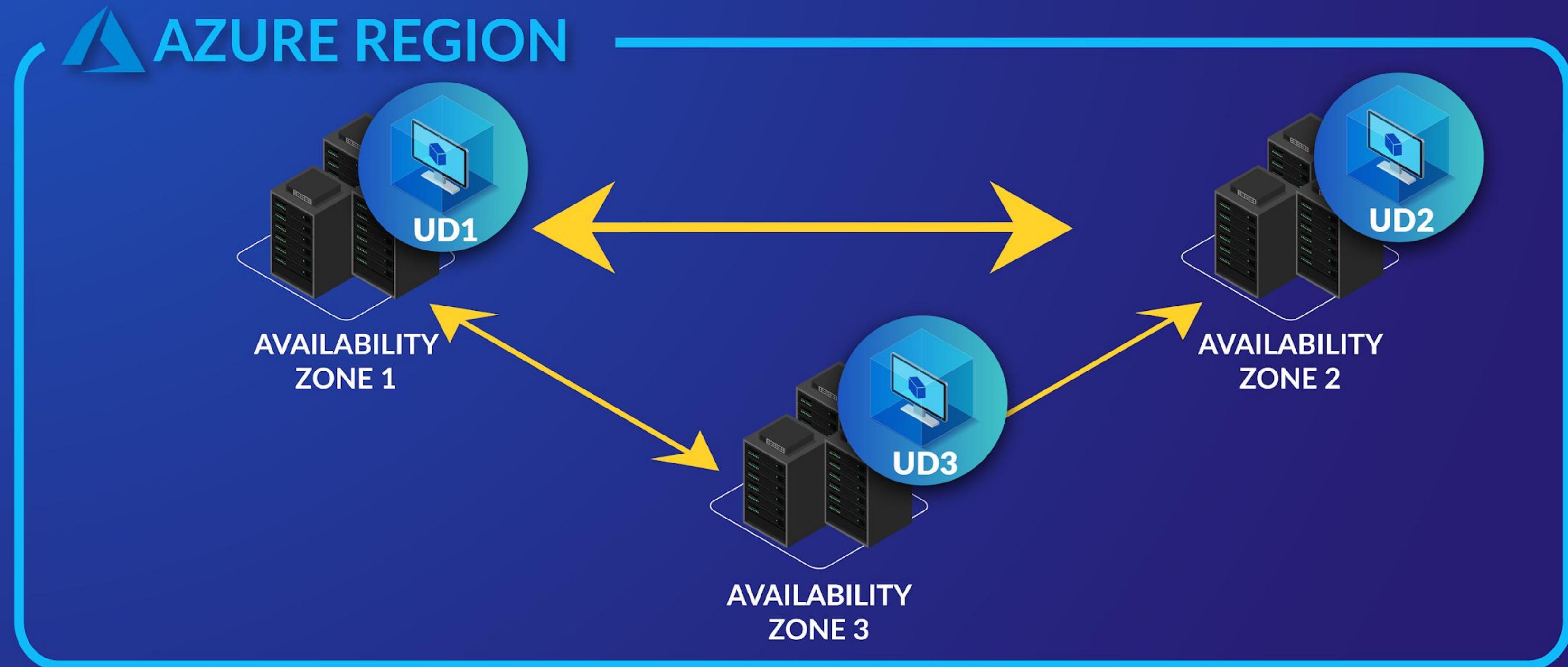
HIGH AVAILABILITY FEATURES

AVAILABILITY SETS



HIGH AVAILABILITY FEATURES

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HIGH AVAILABILITY FEATURES

AVAILABILITY SETS

AVAILABILITY SET



AVAILABILITY ZONE



DEPLOYING AND CONNECTING TO AZURE VMs

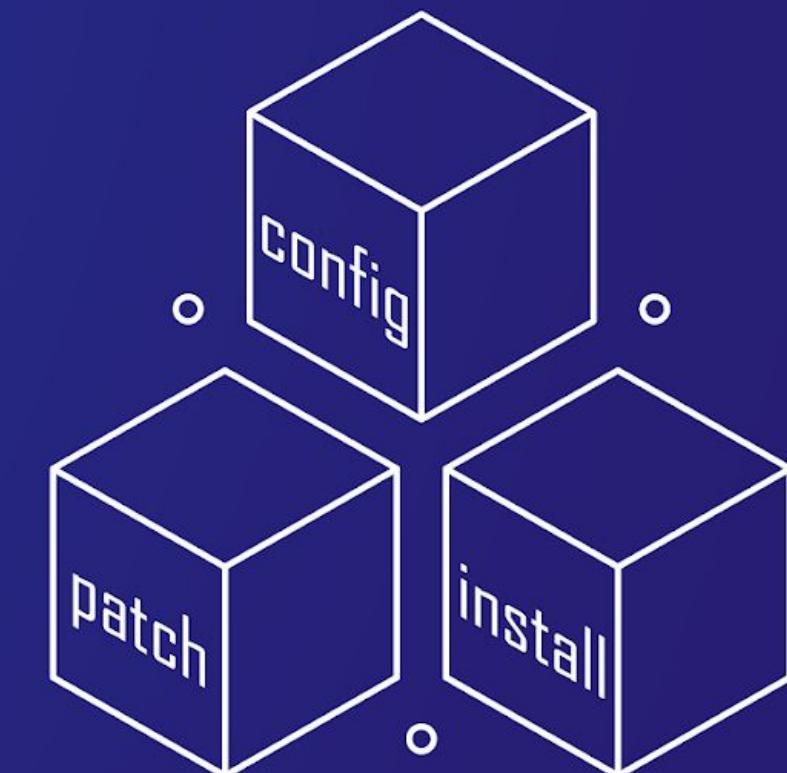
CREATING AND CONNECTING TO AZURE VMs



Azure VMs are scalable computing resources



Using Azure VMs to control over the computing environment



Using Azure VMs to manage server-associated tasks (configuration, patching, and software installation)

DEPLOYING AND CONNECTING TO AZURE VMs

CREATING AND CONNECTING TO AZURE VMs



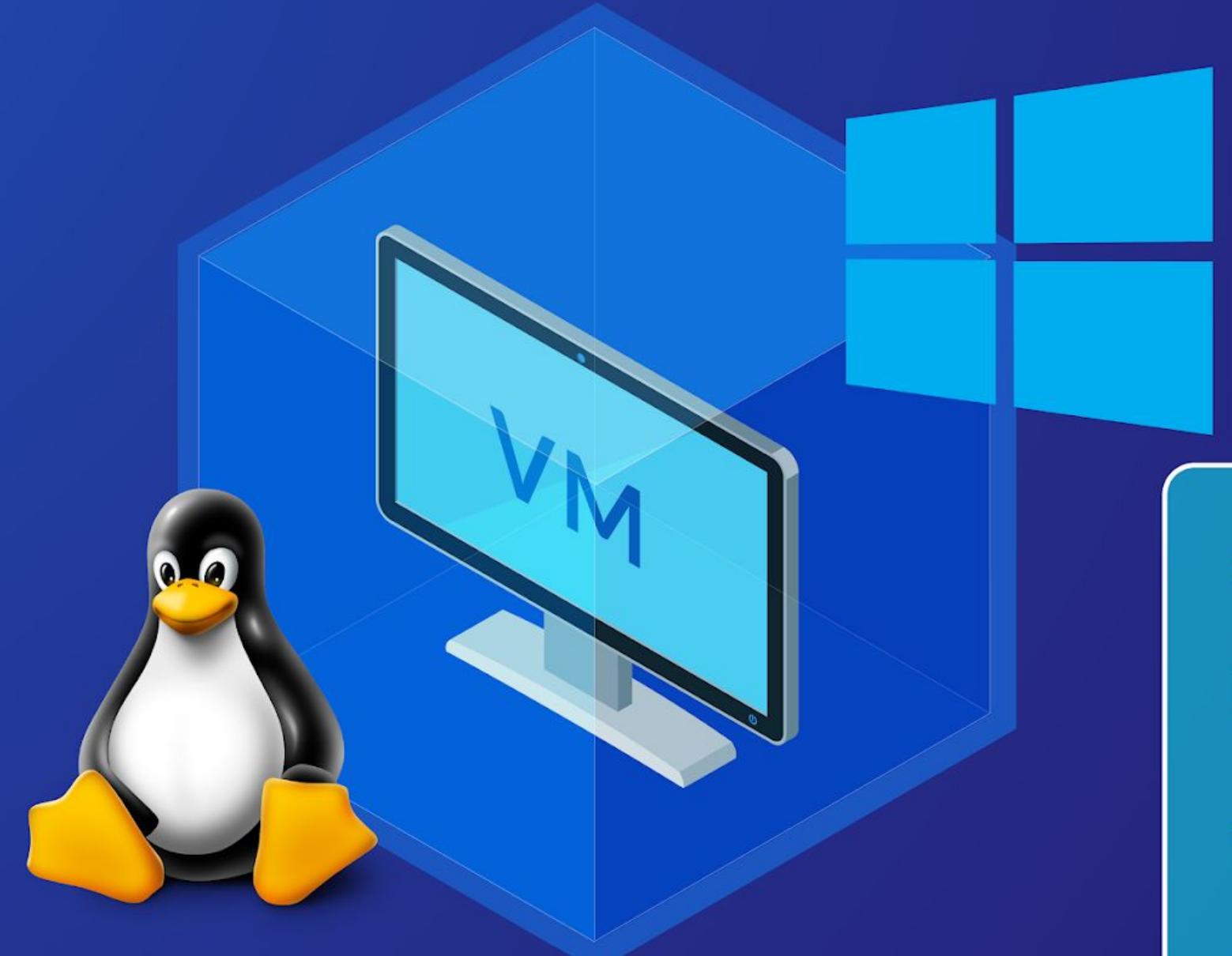
Organizations often rely on VMs for development and test environments

VMs are also useful when you wish to lift and shift your on prem applications to Microsoft Azure

You only pay for what you need

DEPLOYING AND CONNECTING TO AZURE VMs

CREATING AND CONNECTING TO AZURE VMs



CONSIDERATIONS:

DEPLOYMENT LOCATION

VM SIZING REQUIREMENTS

WINDOWS vs LINUX

HELP US IMPROVE

- Your feedback is important to us. Please consider taking a quick 3-question survey [**here**](#) to share your feedback on this deck.

