aws

training and
certification

AWS Certified Solutions Architect - Associate

Week 2 Content Review

September 2023 Accelerator Cohort

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Week 2 Training Summary

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Week 2 Digital Training Curriculum

Core Trainings

Course
AWS Storage Gateway Deep Dive: S3 File Gateway
AWS Storage Gateway Deep Dive: Volume Gateway
Understanding Amazon EBS Volume Encryption
Protecting your instance with Security Groups
Differences between Security Groups and NACLs
Introduction to Amazon Route 53
Amazon Route 53 - Basics of Domain Name System
Subnets, Gateways, and Route Tables Explained
AWS Network Connectivity Options
Introduction to AWS Global Accelerator
Configuring and Deploying a VPC with multiple subnets
Introduction to Amazon CloudFront

Week 1 Homework Assignment

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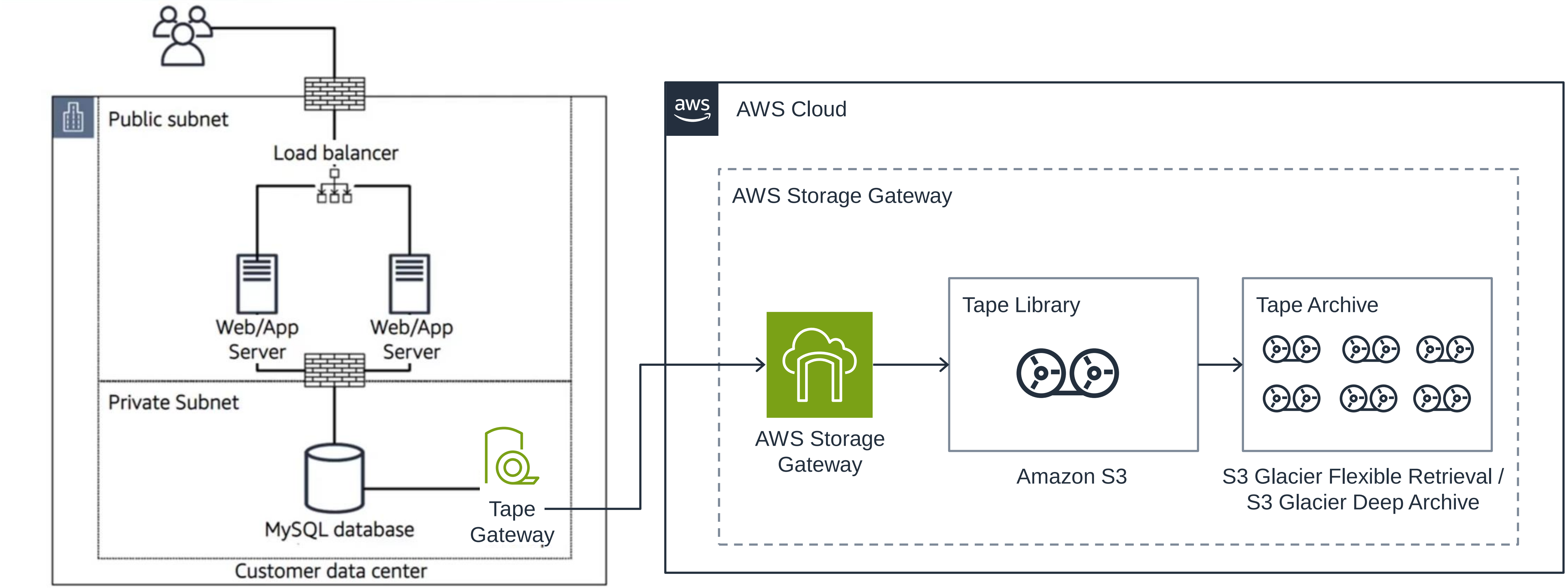
Week 1 Homework – Solution Key



Week 2 Homework Assignment

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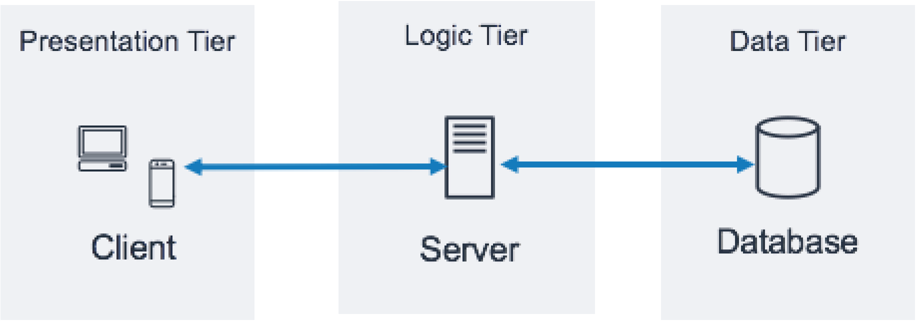
Week 2 Homework – Design your Network!

Solution Requirements:

1. **3-Tier Application (Web, Backend, DB).**
2. **Highly Available architecture (Span Availability Zones)**
3. **VPC Access to Amazon S3**



Your Task:

Design an architecture diagram meeting these requirements. Inclusion of AutoScalingGroups not required – focus on the Network Connectivity side!

Week 2 Homework – Bonus Points!

Your Task:

- **Add the CIDR block range for the VPC and each Subnet.**
- **Explain the NACLs used for each.**
- **Add in an additional region – How do you route traffic between regions?**
- **How can you lower latency for static content to your end users?**

AWS Networking and Content Delivery

Week 2 Homework – Show and Tell!

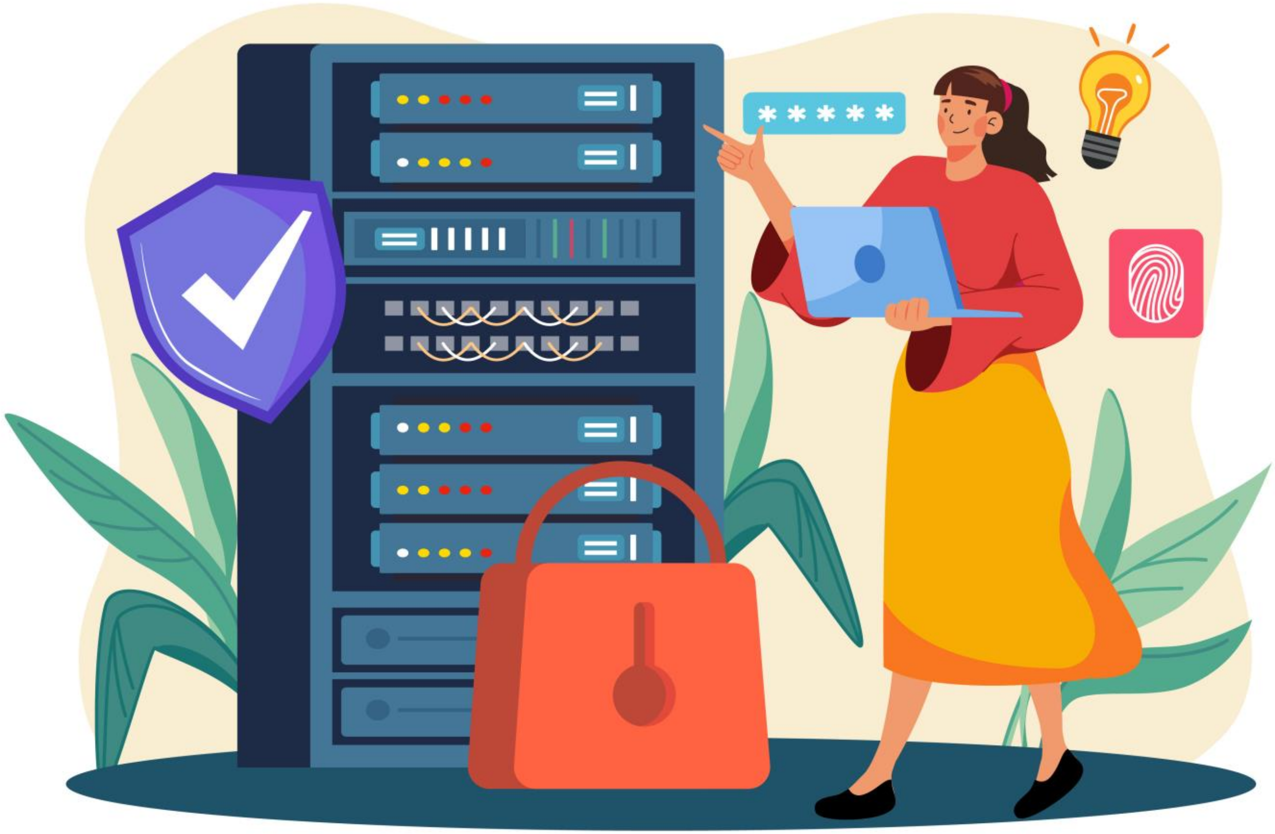
Share us your architecture, answers, and explanation on LinkedIn!

#AWSpartners

#AWSaccelerator

Tag us so we don't miss it!

Kevin, Sam, Brady



Please do not share confidential or proprietary information on social media.

About the Exam

AWS Certified Solutions Architect - Associate

About the Exam

- 130 minutes
- 65 Questions
  - *50 questions affect your score*
  - Scored 100 to 1000 (720+ pass)
- $150/voucher
- Multiple Response & Individual response questions
- In-Person & Remote proctoring available

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Key Exam Topics

Domains Covered:	**% of Exam**
Domain 1: Design Secure Architectures	30%
Domain 2: Design Resilient Architectures	26%
Domain 3: Design High-Performing Architectures	24%
Domain 4: Design Cost-Optimized Architectures	20%
Total:	**100%**

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Helpful Resources

Training

- AWS Partner Accreditation: Technical
- AWS Solutions Architect – Accelerator Learning plan

White Papers

- Overview of Amazon Web Services
- AWS Well-Architected Framework
- Management and Governance Lens
- AWS Global Infrastructure
- Shared Responsibility Model
- How AWS Pricing Works
- AWS Architecture Center
- Secure Content Delivery with Amazon CloudFront
- IPv6 on AWS
- Overview of Deployment options on AWS
- Organizing your AWS Environment using multiple accounts

Exam Preparation

- Twitch Power Hours
- Sample Questions
- Schedule an Exam

Looking for more ***Practice Exams***?

Check out our ***Skill Builder Subscription*** *(information on the next slide)*

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OPTIONAL AWS Skill Builder Subscription

The Skill Builder subscription provides access to official AWS Certification practice exams, self-paced digital training content including open-ended challenges, self-paced labs, and game-based learning. ***Please note, the Skill Builder subscription is not required for this Accelerator program.***

Free digital training

LINK HERE

Special features include:

- 500+ digital courses
- Learning plans
- 10 Practice Question Sets
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Individual subscription

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- Exam prep courses
- 100+ AWS Builder Labs
- AWS Jam Journey (lab-based challenges)

Individual subscriptions are priced at $29 USD per month (*Flexibility to cancel anytime*) or $299 USD per year.

Access ***65*** Solutions Architect - Associate Practice Exam Questions with feedback on your answer choices

Get AWS Certified: Associate Challenge

WHO is the challenge for?

Individuals who want to earn one of the three AWS Associate Certifications:

WHEN is the challenge?

June 6 – September 29, 2023

The last day to join and receive the 50% discount voucher is September 29, 2023.

Complete the exam by October 31, 2023 to leverage the voucher.

WHERE do I get started?

Sign up for the Get AWS Certified: Associate Challenge today!

*Terms and conditions apply. A 50% discount exam voucher is available for participants who want to earn an AWS Certified Associate - level Certification

[1] Enterprise Strategy Group, AWS Training and Certification Help Learners Thrive in an Increasingly Cloud-first World, 2022

Virtual Private Cloud (VPC)

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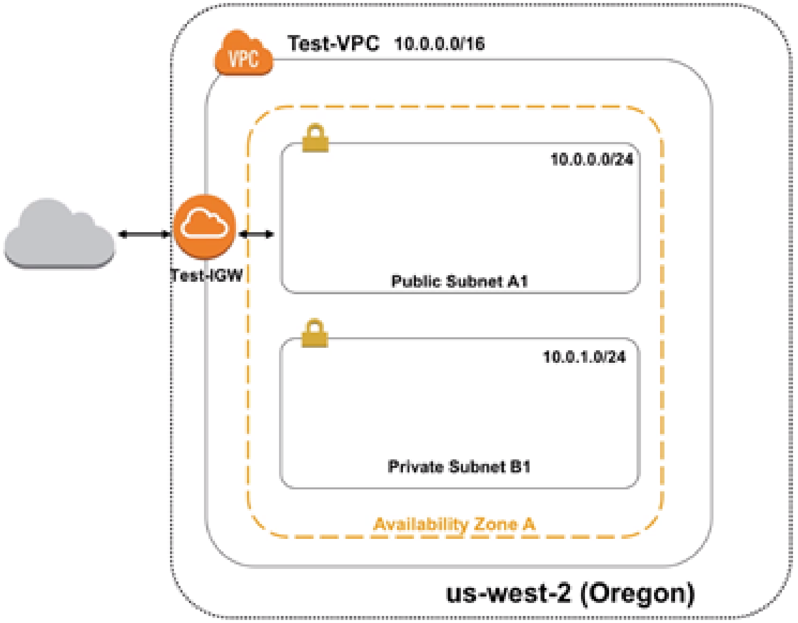
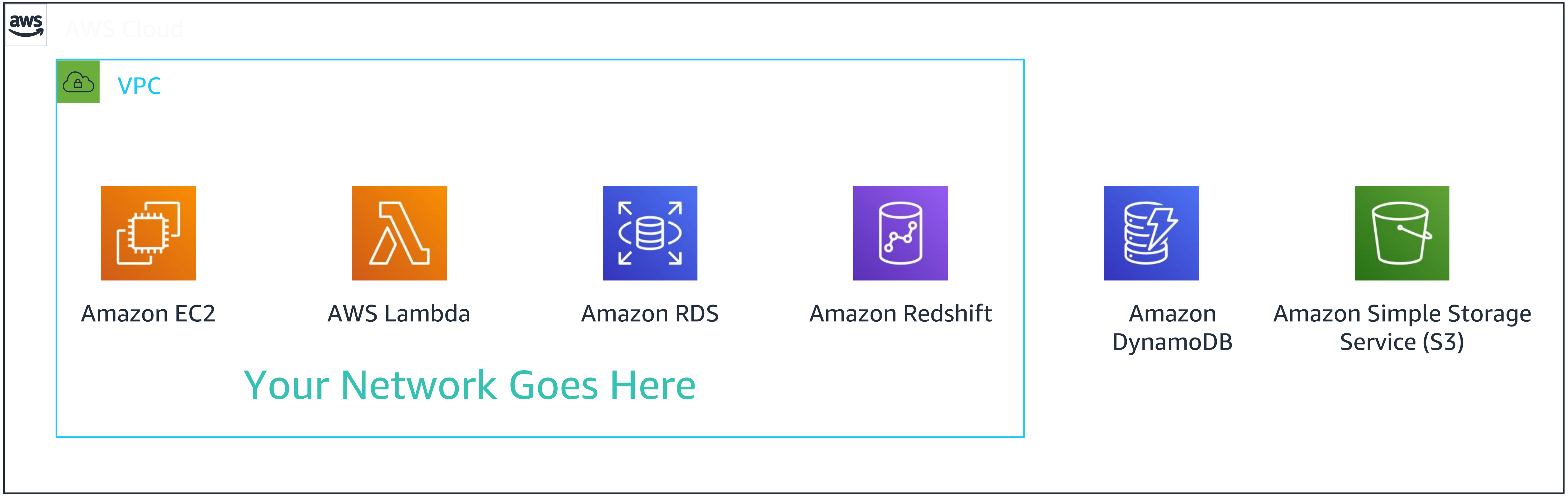
Amazon Virtual Private Cloud (VPC)

Provision a Logically Isolated Section of the AWS Cloud

- Control your virtual networking environment
  - Subnets
  - Route tables
  - Security Groups
  - Network ACLs
- Connect to your on-premises network via VPN or Direct Connect
- Control if and how your instances access the internet



Amazon Virtual Private Cloud (VPC)



AWS Cloud

VPC

Amazon EC2

AWS Lambda

Amazon RDS

Amazon Redshift

Your Network Goes Here

Amazon DynamoDB

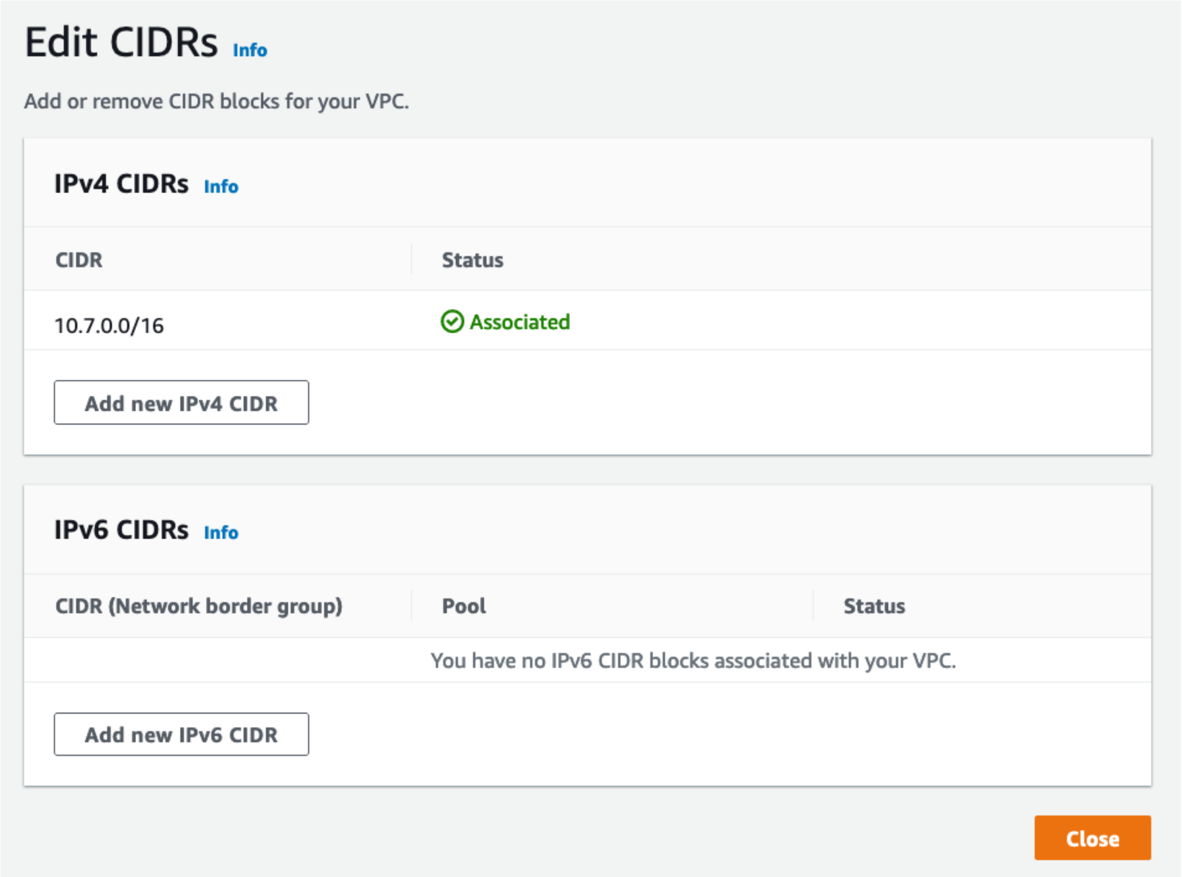
Amazon Simple Storage Service (S3)

VPC IP Addressing

Bring your own addressing plan.

Plan your IP address space before creating it!

- Consider future AWS region expansion.
- Consider future connectivity to corporate networks.
- Consider subnet design.
- VPCs can be /16 between and /28.
- CIDR cannot be modified once created
  - But you can add new CIDRs to expand the VPC IP addressing
- Overlapping IP spaces = future headache!



Edit CIDRs Info

Add or remove CIDR blocks for your VPC.

IPv4 CIDRs Info

CIDR	Status
10.7.0.0/16	✓ Associated

IPv6 CIDRs Info

CIDR (Network border group)	Pool	Status

You have no IPv6 CIDR blocks associated with your VPC.

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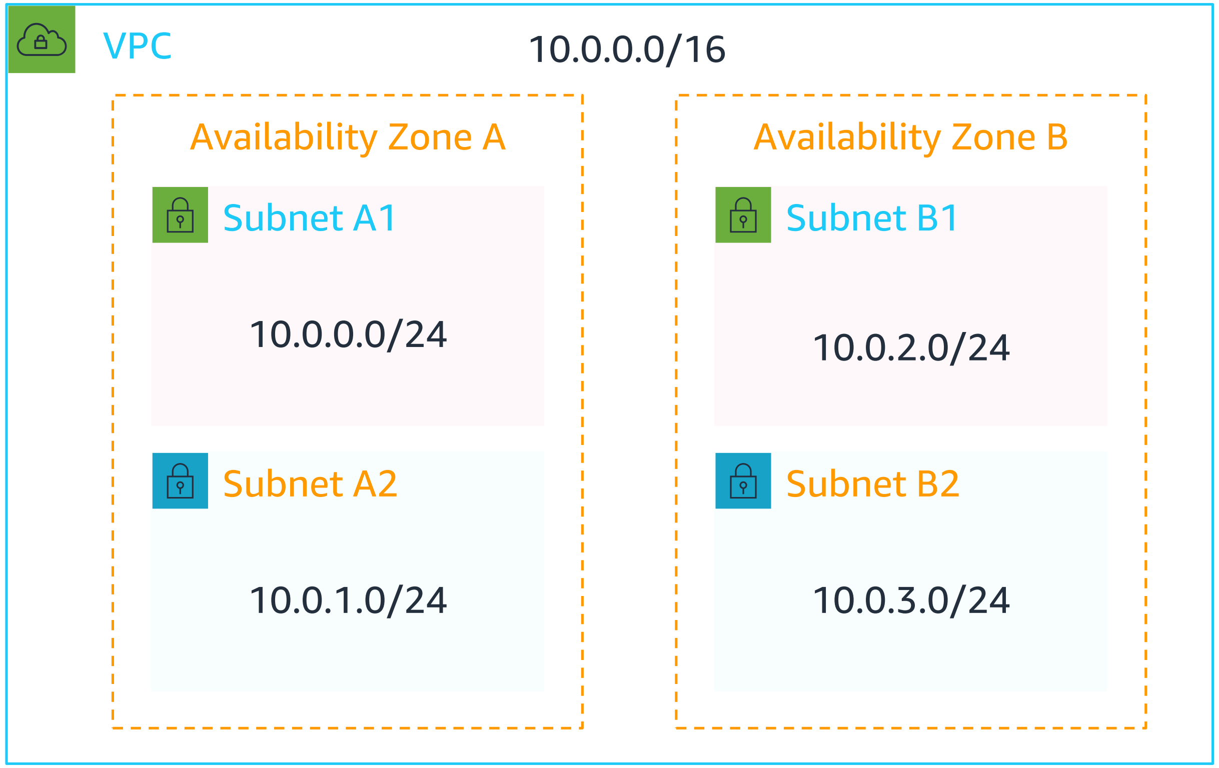
How to segment my networks inside a VPC?

VPC Subnets

- You can add one or more subnets in each Availability Zone
- AZs provides fault isolations
- Subnets are allocated as a subset of the VPC CIDR range



VPC 10.0.0.0/16

Availability Zone A

Subnet A1 10.0.0.0/24

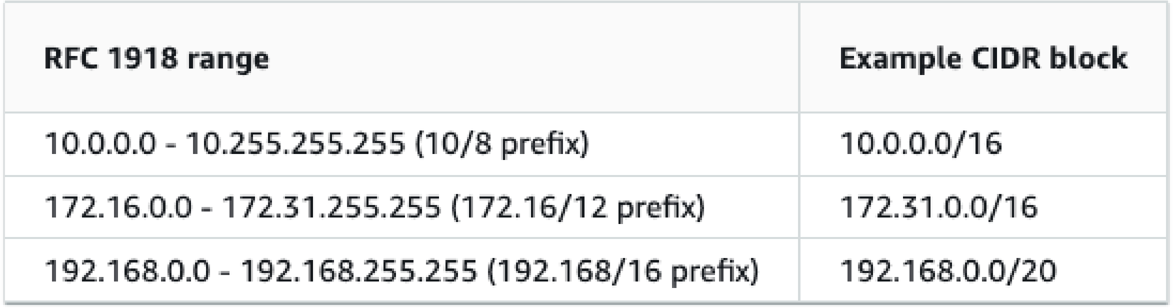
Subnet A2 10.0.1.0/24

Availability Zone B

Subnet B1 10.0.2.0/24

Subnet B2 10.0.3.0/24

RFC recommended private address space:



RFC 1918 range	Example CIDR block
10.0.0.0 - 10.255.255.255 (10/8 prefix)	10.0.0.0/16
172.16.0.0 - 172.31.255.255 (172.16/12 prefix)	172.31.0.0/16
192.168.0.0 - 192.168.255.255 (192.168/16 prefix)	192.168.0.0/20

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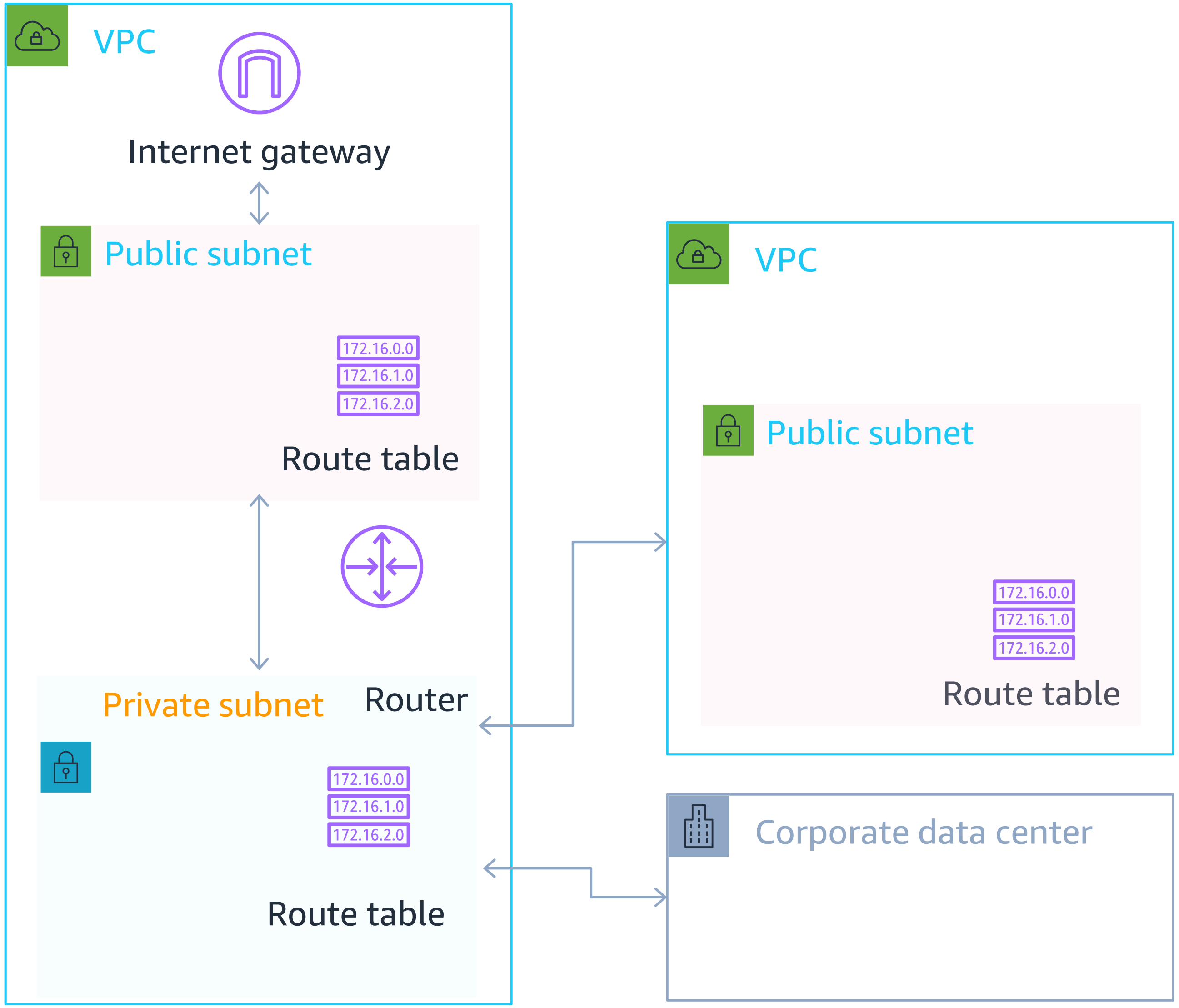
How to direct traffic out of my Subnets

VPC Subnets

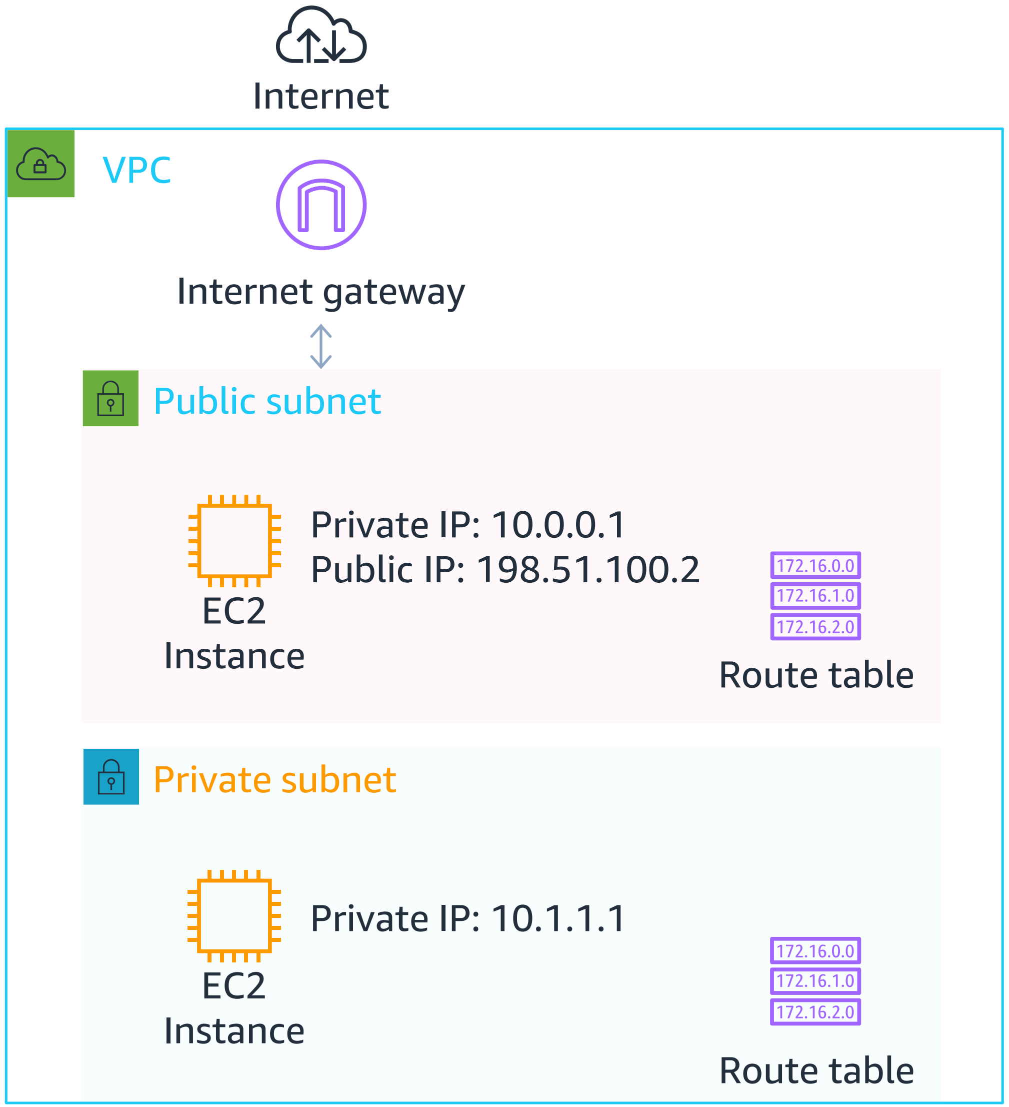
- Each subnet can have a unique Route Table
- Route Tables direct traffic out of the VPC, towards:
  - Internet Gateway
  - Virtual Private Gateway
  - VPC Endpoints
  - Direct Connect
  - VPC Peering
  - AWS Transit Gateway
- Subnets are named “Public Subnets” when connected to an Internet Gateway



How to connect my VPC to the Internet?

Internet Gateway

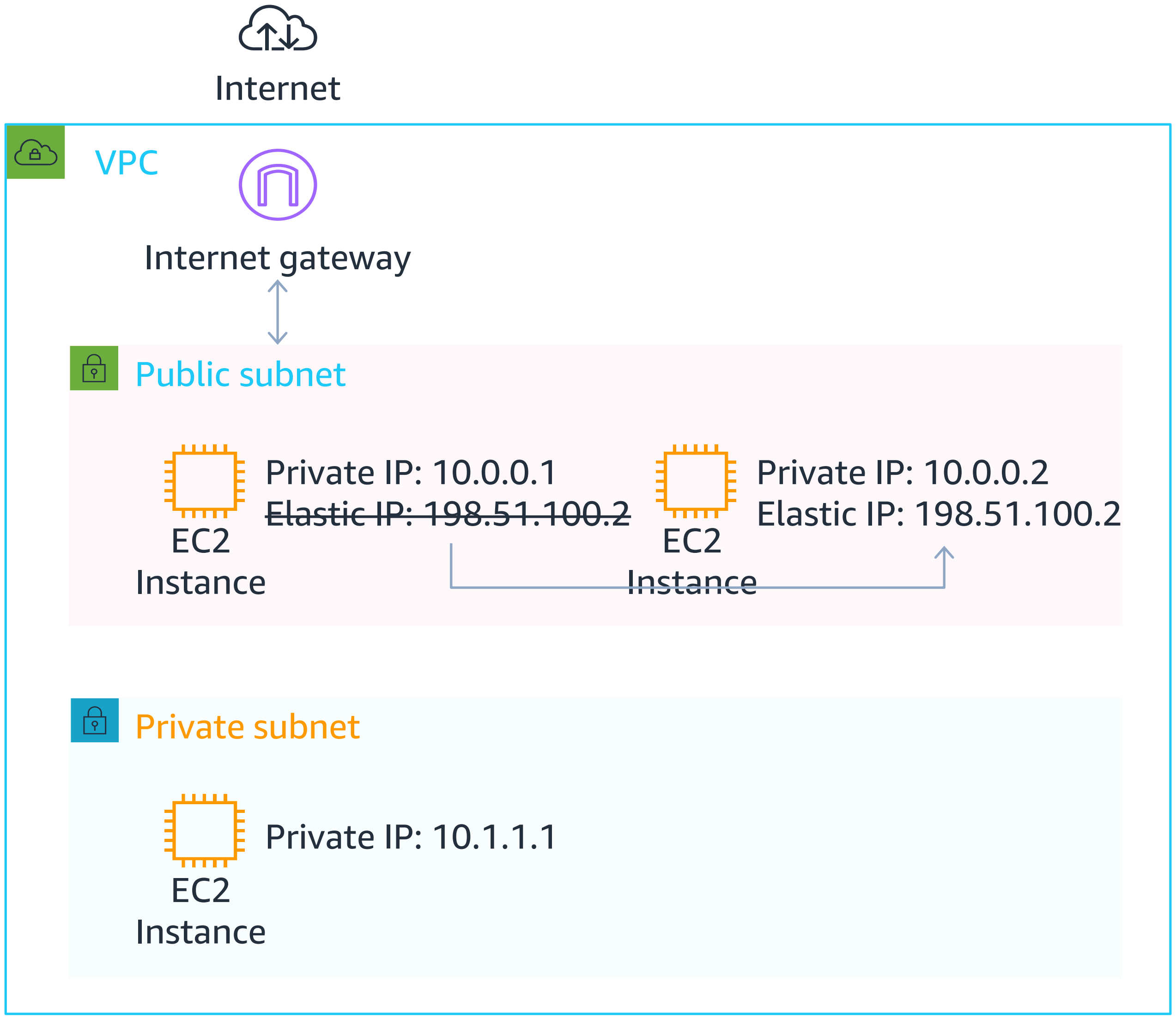
- Horizontally scaled, redundant, highly available VPC component
- Connect your VPC Subnets to the Internet
- Must be referenced on the Route Table
- Performs NAT between Public and Private IP Addresses



How does my instance get an IP address?

Elastic IP Address

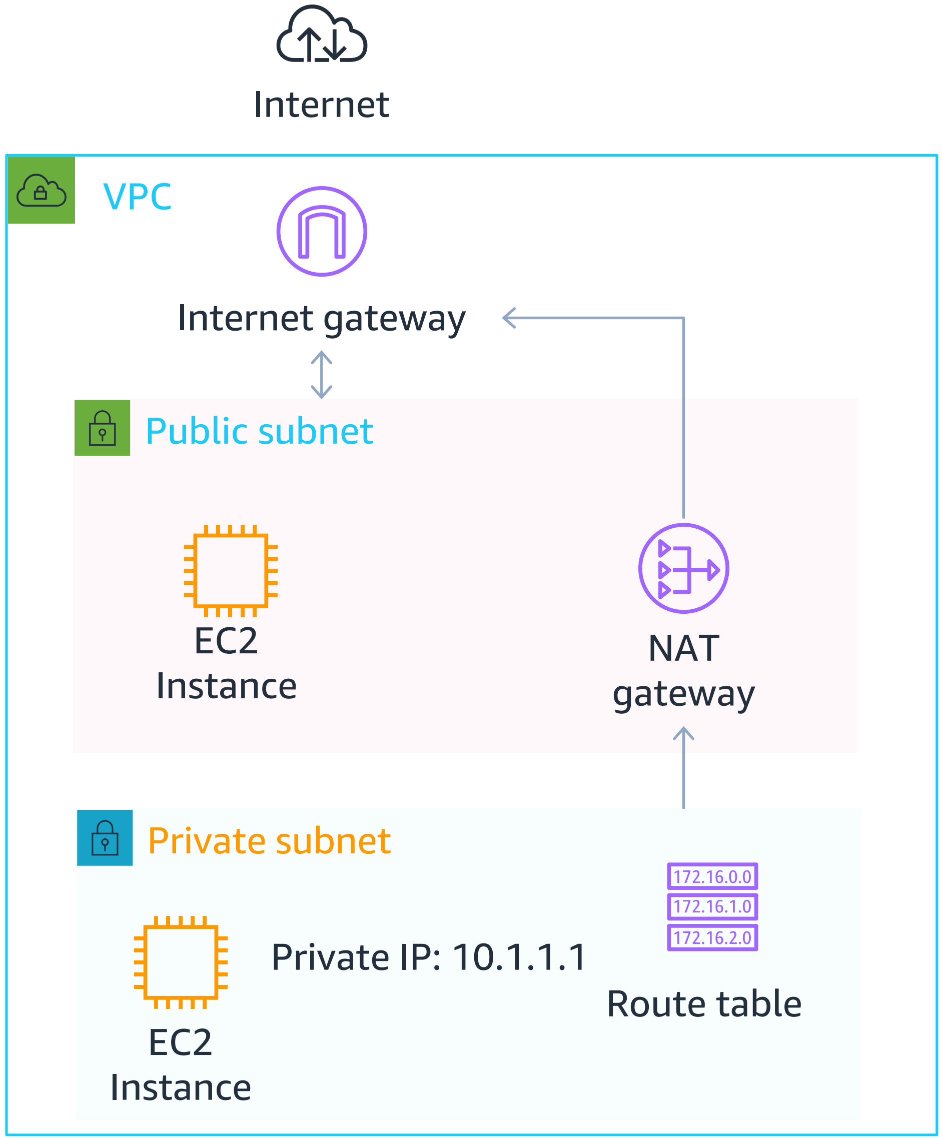
- Static, Public IPv4 address, associated with your AWS account
- Can be associated with an instance or network interface
- Can be remapped to another instance in your account
- Useful for redundancy when Load Balancers are not an option



Can I have outbound only Internet access?

NAT Gateway

- Enable outbound connection to the internet
- No incoming connection - useful for OS/packages updates, public web services access
- Fully managed by AWS
- Highly available
- Up to 10Gbps bandwidth
- Supports TCP, UDP, and ICMP protocols
- Network ACLs apply to NAT gateway's traffic



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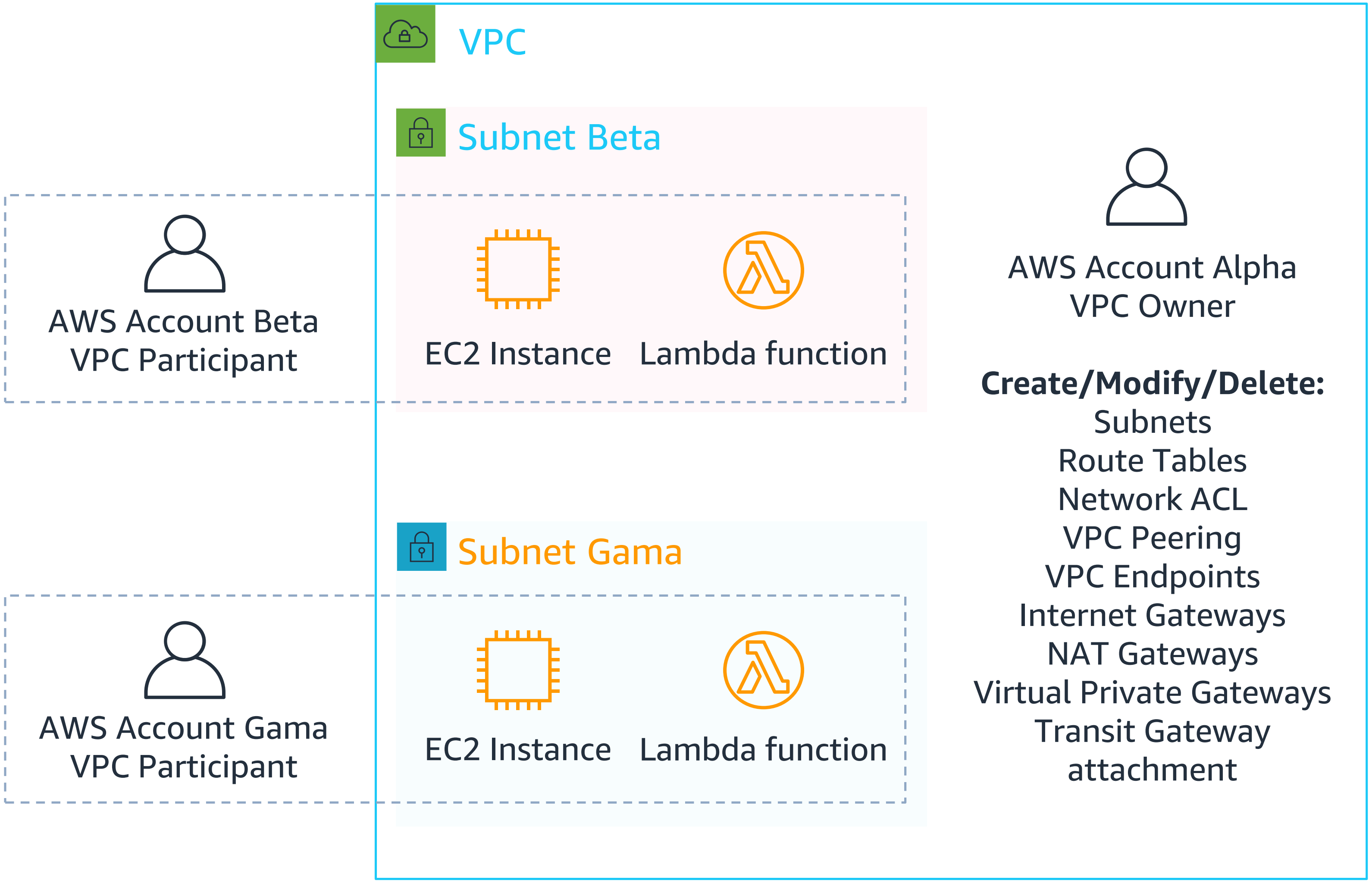
Can I have one account owning the VPC, and other using it?

Shared VPC

- VPC Owner can create and edit VPC Components
- VPC Participants can launch resources in their assigned Subnets
- Each participant pays for their own resources and data transfer costs
- Based on AWS Resource Access Manager, under AWS Organizations



Create/Modify/Delete:
Subnets
Route Tables
Network ACL
VPC Peering
VPC Endpoints
Internet Gateways
NAT Gateways
Virtual Private Gateways
Transit Gateway attachment

Can I filter traffic reaching my instances?

Security Groups

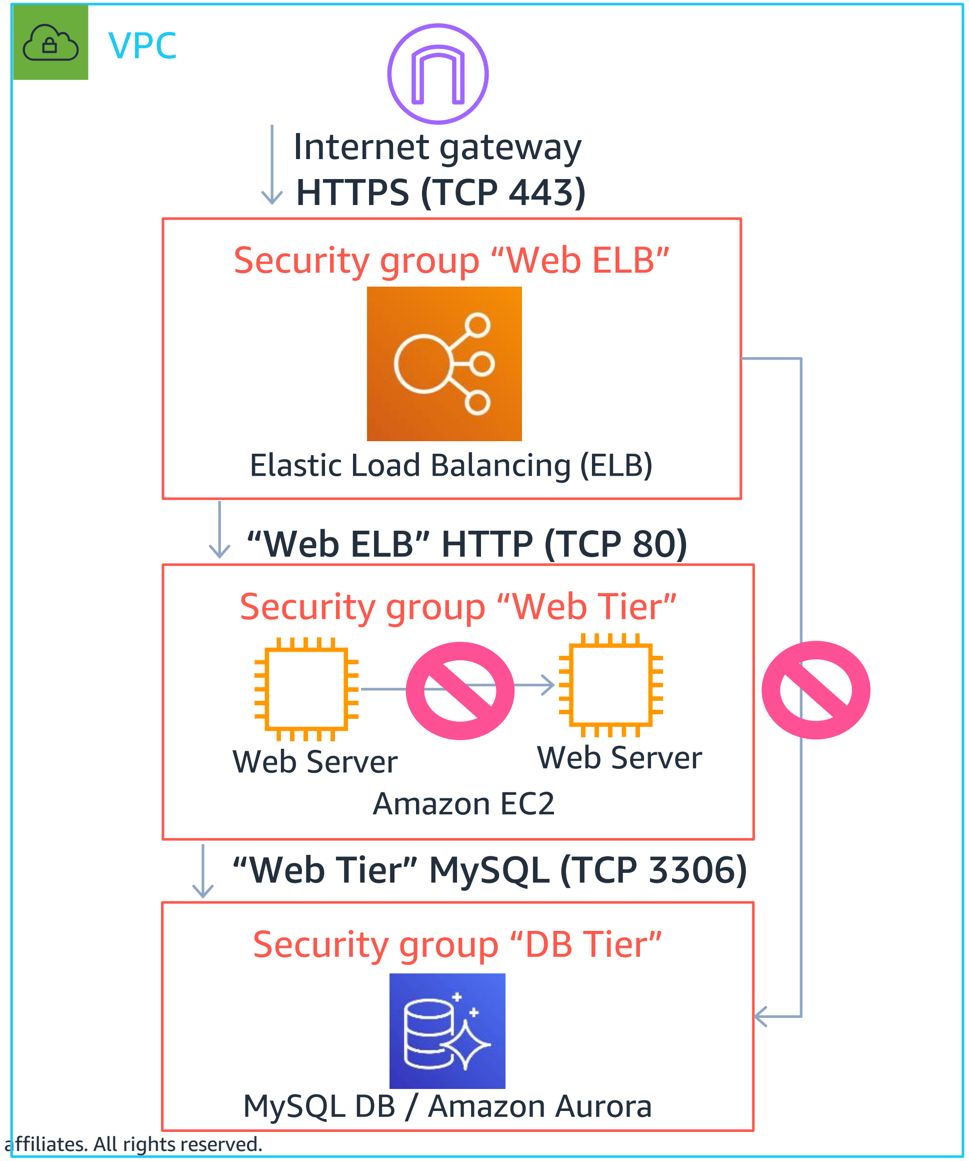
- VPC Virtual stateful firewall
- Inbound and Outbound customer defined rules
- Instance/Interface level inspection

  Micro segmentation

  Mandatory, all instances have an associated Security Group
- Can be cross referenced

  Works across VPC Peering
- Only supports allow rules

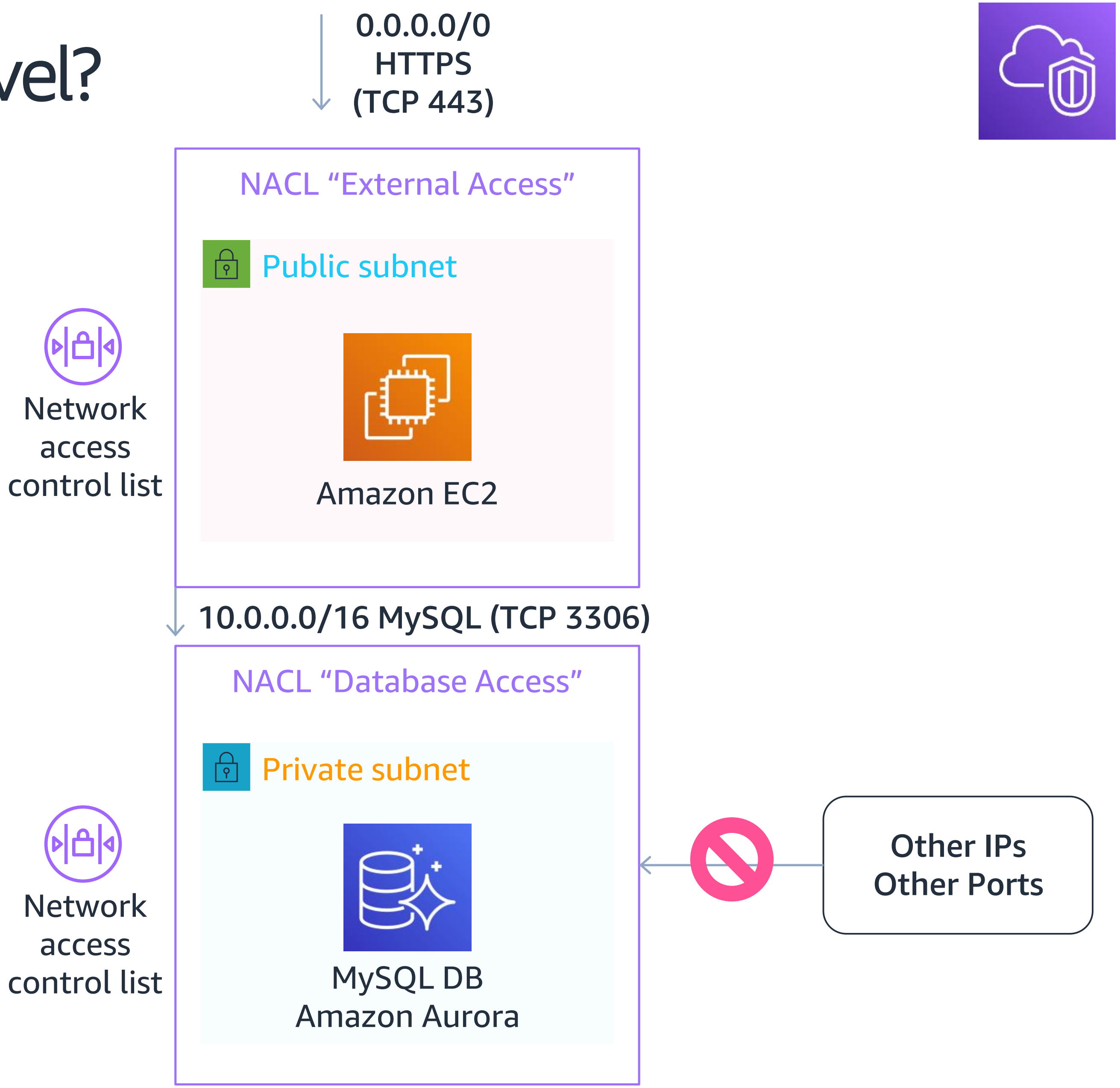
  Implicit deny all at the end



Can I filter traffic on a subnet level?

Network Access Control List

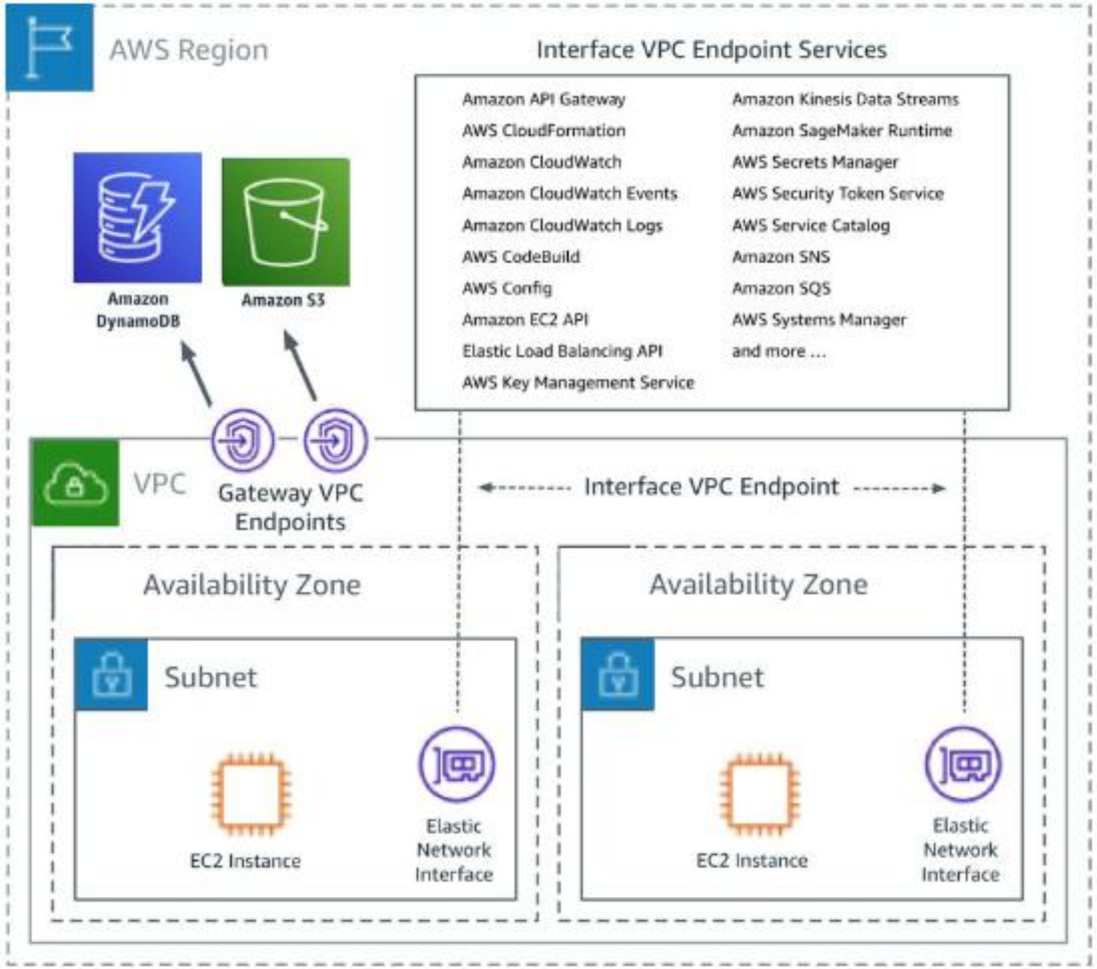
- Inbound and Outbound
- Subnet level inspection
- Optional level of security
- By default, allow all traffic
- Stateless
- IP and TCP/UDP port based
- Supports allow and deny rules
- Deny all at the end



How to connect privately to public AWS Services?

VPC Endpoints – Interface and Endpoint

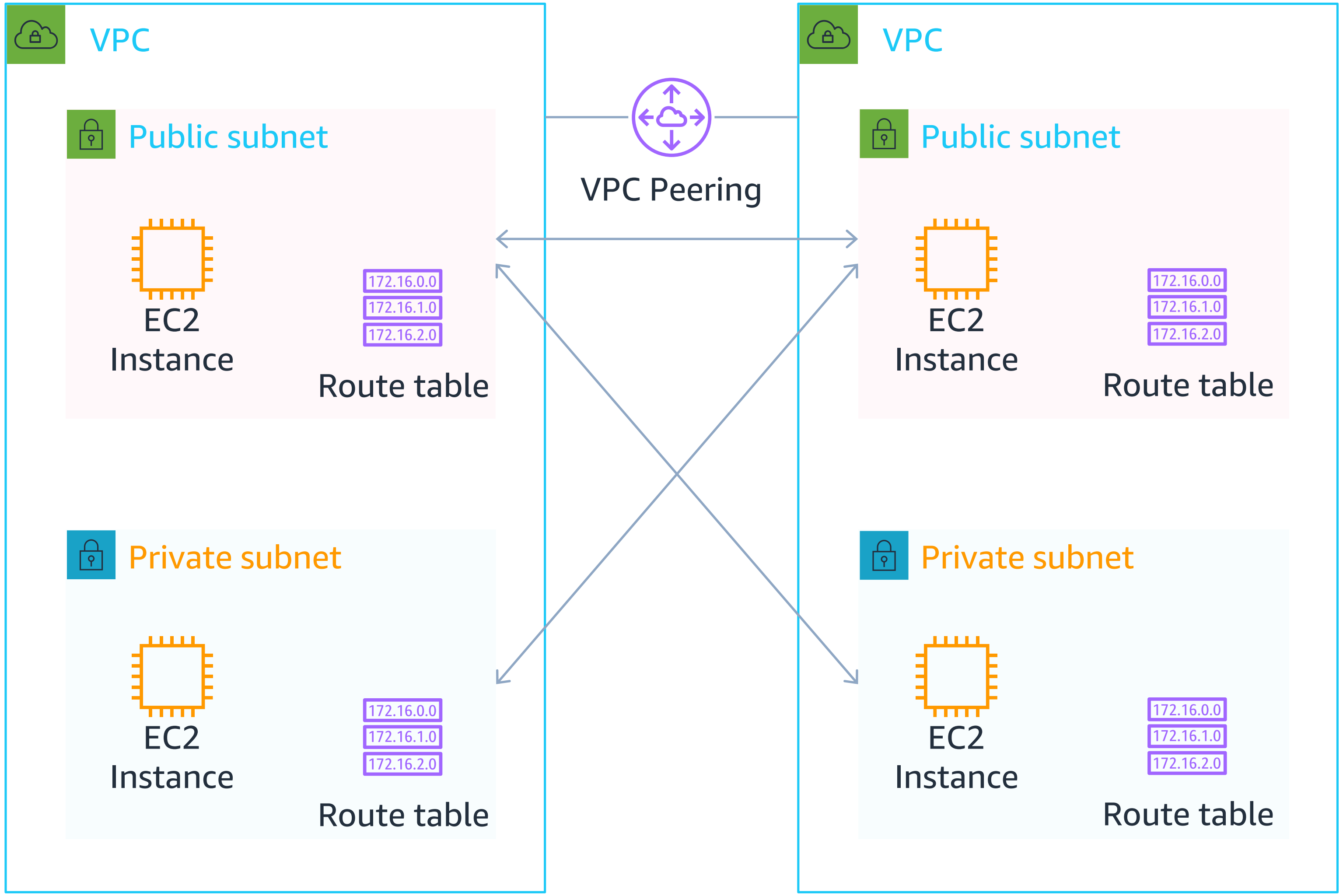
- Connect your VPC to:
  - Supported AWS services
  - VPC endpoint services powered by PrivateLink
- Doesn't require public IPs or Internet connectivity
- Traffic does not leave the AWS network.
- Horizontally scaled, redundant, and highly available
- Robust access control



How to connect directly to other VPCs?

VPC Peering

- Scalable and high available
- Inter-account peering
- Same or different AWS Regions
- Bi-directional traffic
- Remote Security groups can be referenced
- Routing policy with Route Tables; not all subnets need to connect to each other
- No transitive routing, requires full-mesh to interconnect multiple VPCs
- No support for overlapping IP addresses



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Route 53 (DNS)

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Amazon Route 53

A reliable and cost-effective way to route end users to Internet applications

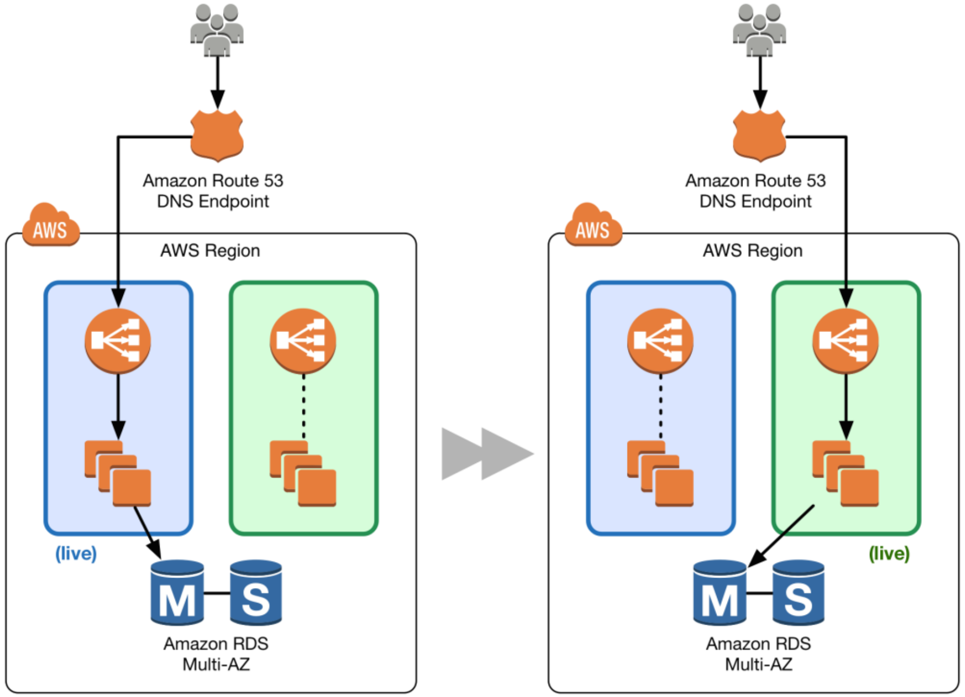
Connects user requests to infrastructure running in AWS. Highly available and scalable cloud Domain Name System (DNS) web service

Simplicity

Amazon Route 53 Traffic Flow makes it easy to set up sophisticated routing logic for your applications

Speed

Using a global anycast network of DNS servers around the world, Amazon Route 53 is designed to automatically route your users to the optimal location depending on network conditions



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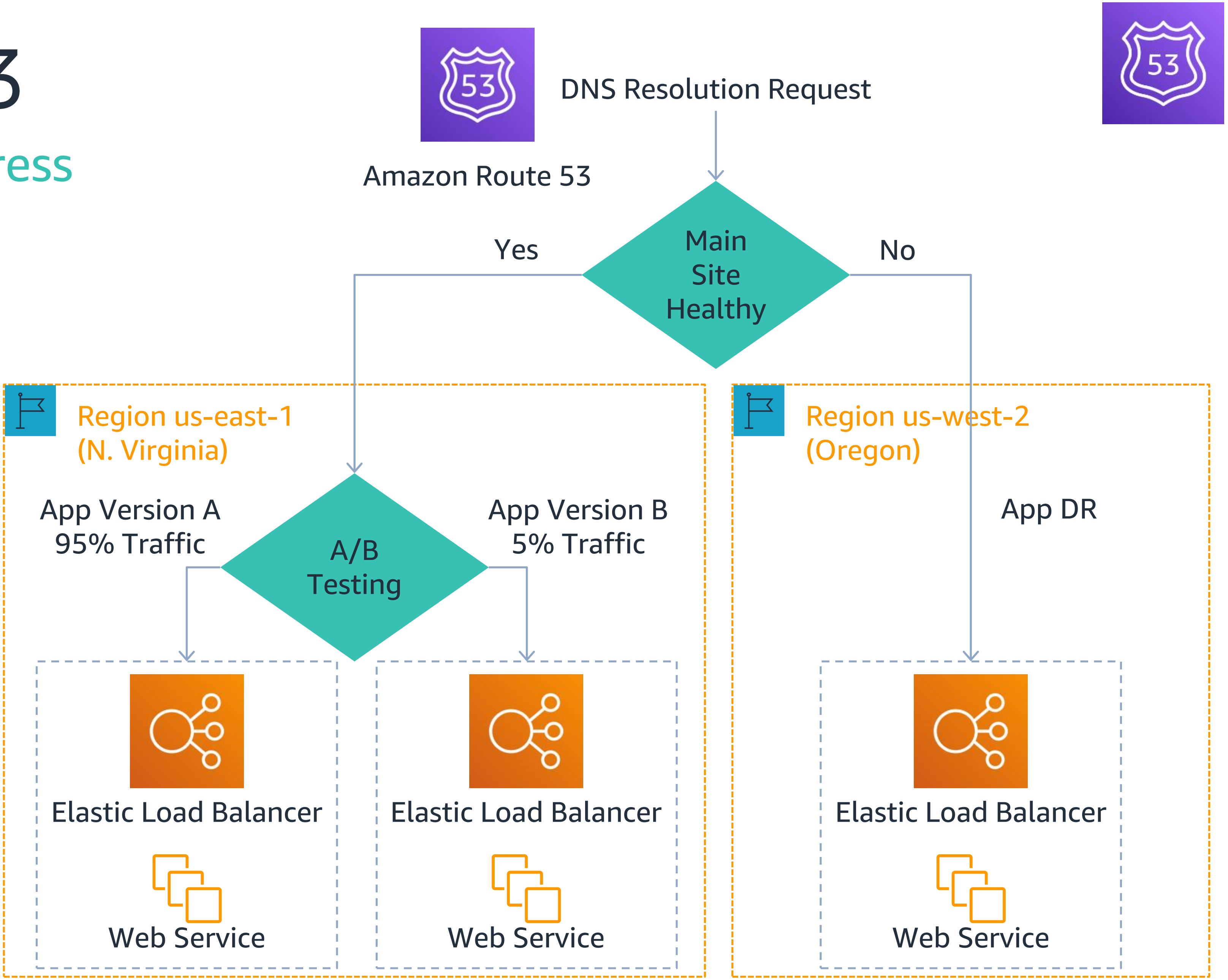
Amazon Route 53

Domain Names to IP Address

- AWS DNS service
- Domain Registration
- Domain name resolution
- 100% availability SLA
- Health Checks
- DNS Failover
- Latency Based Routing
- Geo Based Routing
- Weighted Round Robin
- Private DNS for VPC



Direct Connect

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AWS Direct Connect

Use AWS Direct Connect to securely link your on-premise environment to AWS

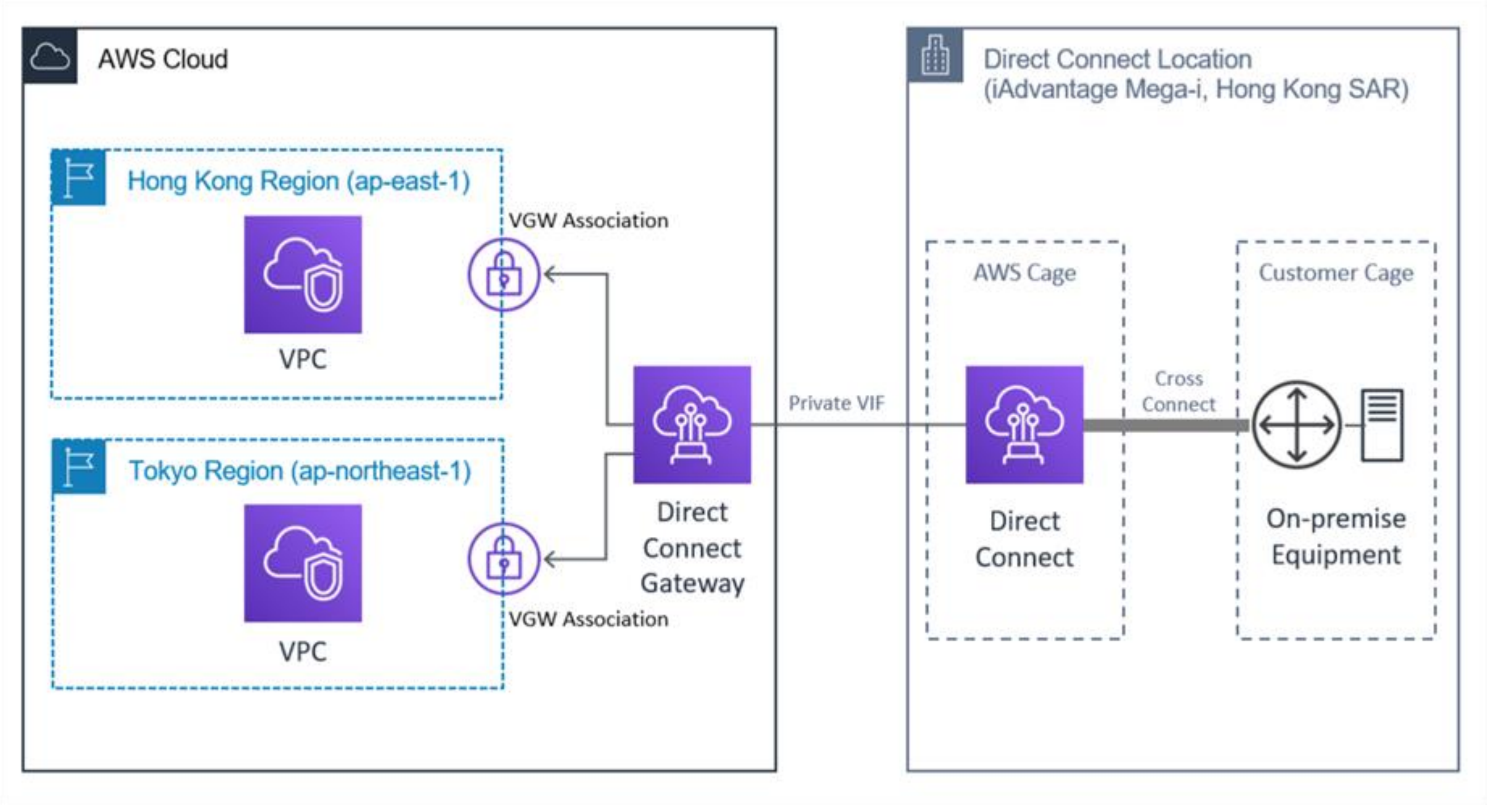
Directly connect your data center to AWS over a standard 1 gigabit or 10 gigabit Ethernet fiber-optic connection

Hybrid connectivity

Hybrid environments allow you to combine the elasticity and economic benefits of AWS and continue to use your existing infrastructure

Working with large datasets

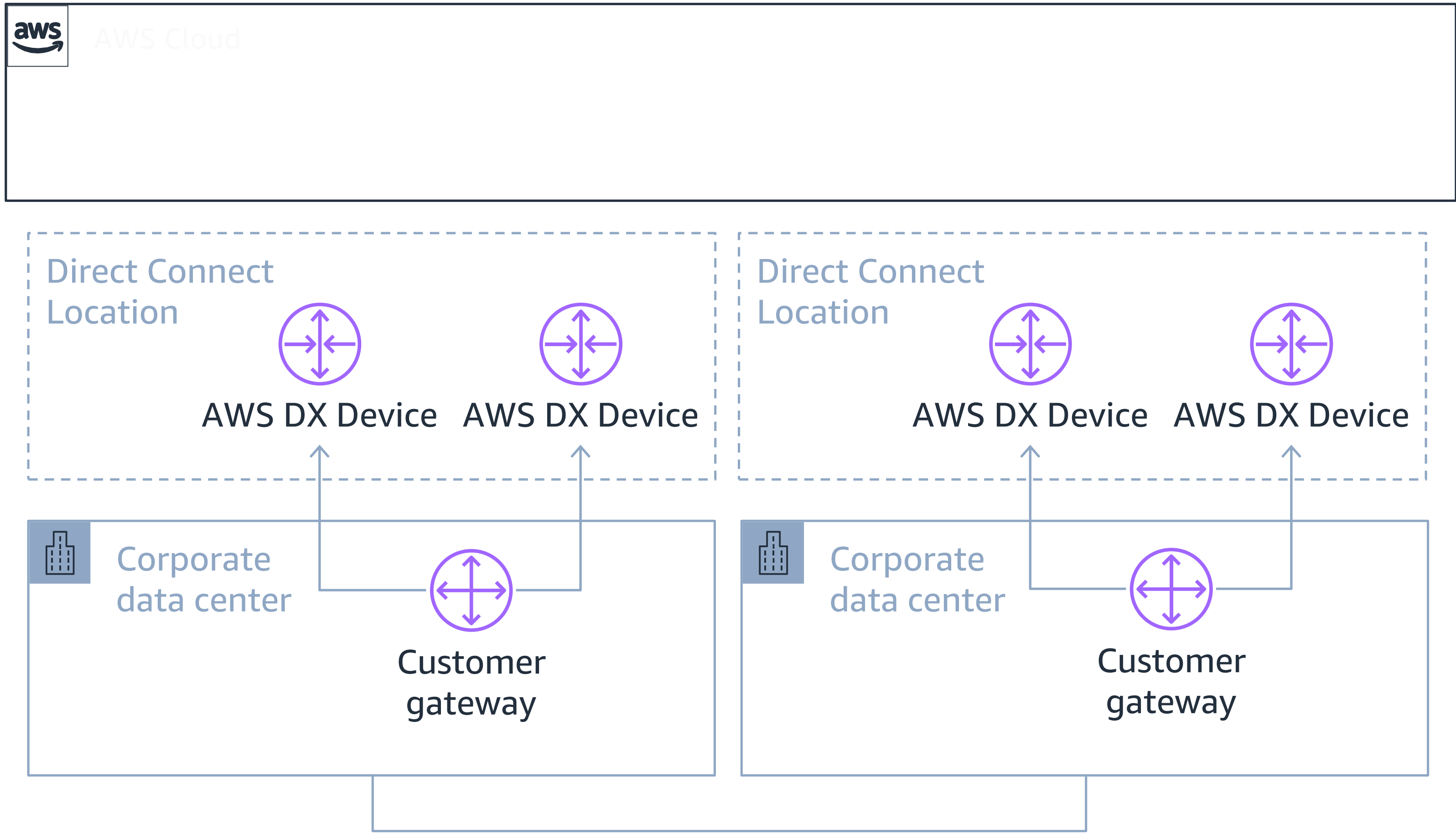
Transfer your business critical data directly from your datacenter, office, or colocation environment into and from AWS, bypassing your internet service provider and removing network congestion



AWS Direct Connect

How to add redundancy to my dedicated circuits?

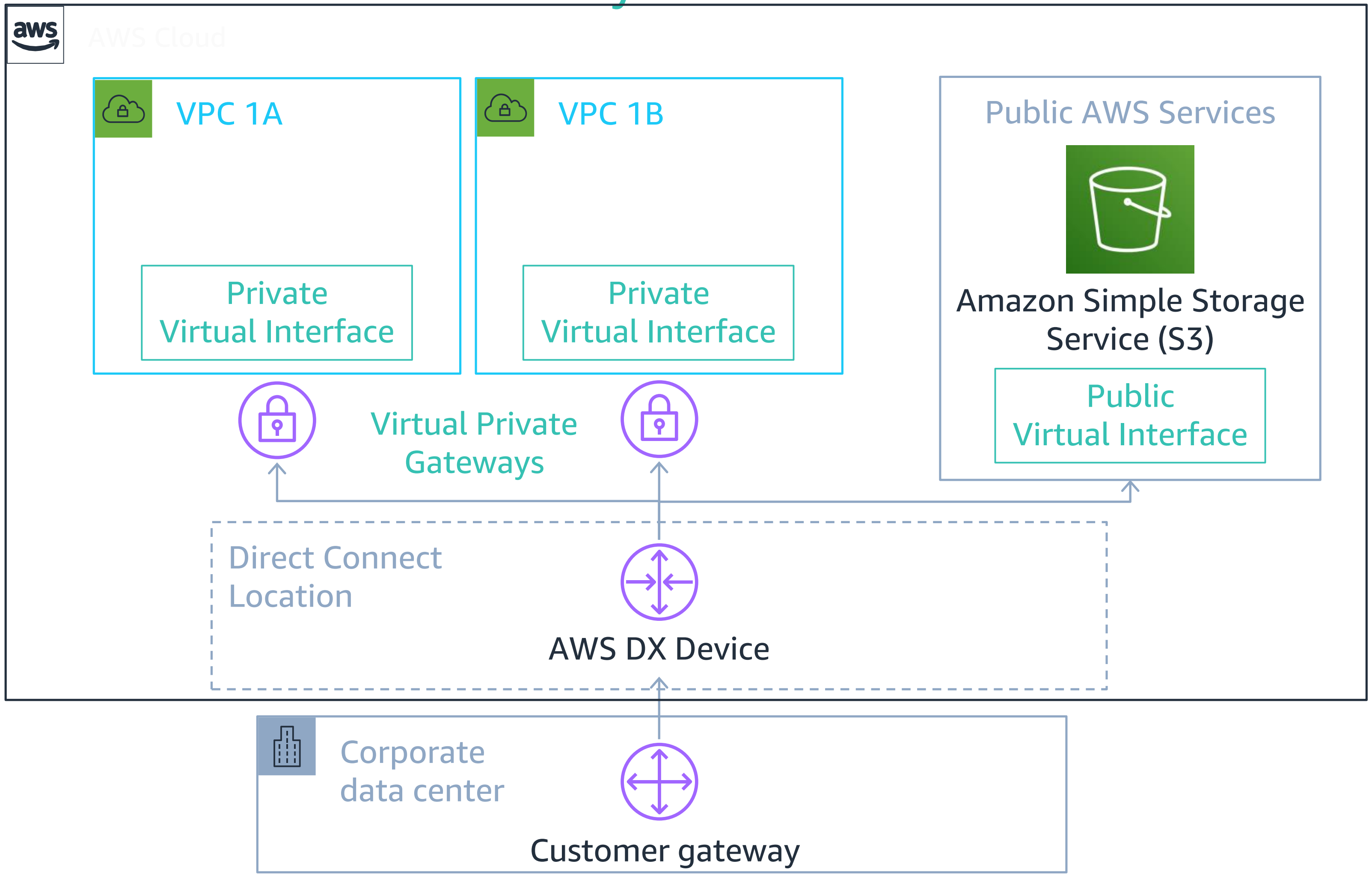
- For redundancy, DX can deployed with single or multiples:
  - Circuits
  - Providers
  - Customer Gateways
  - Direct Connect Locations
  - Customer data centers
- BGP Routing for redundancy
- AWS VPN can also be used as backup path



AWS Direct Connect

How to access my VPCs or AWS Public Services over my DX?

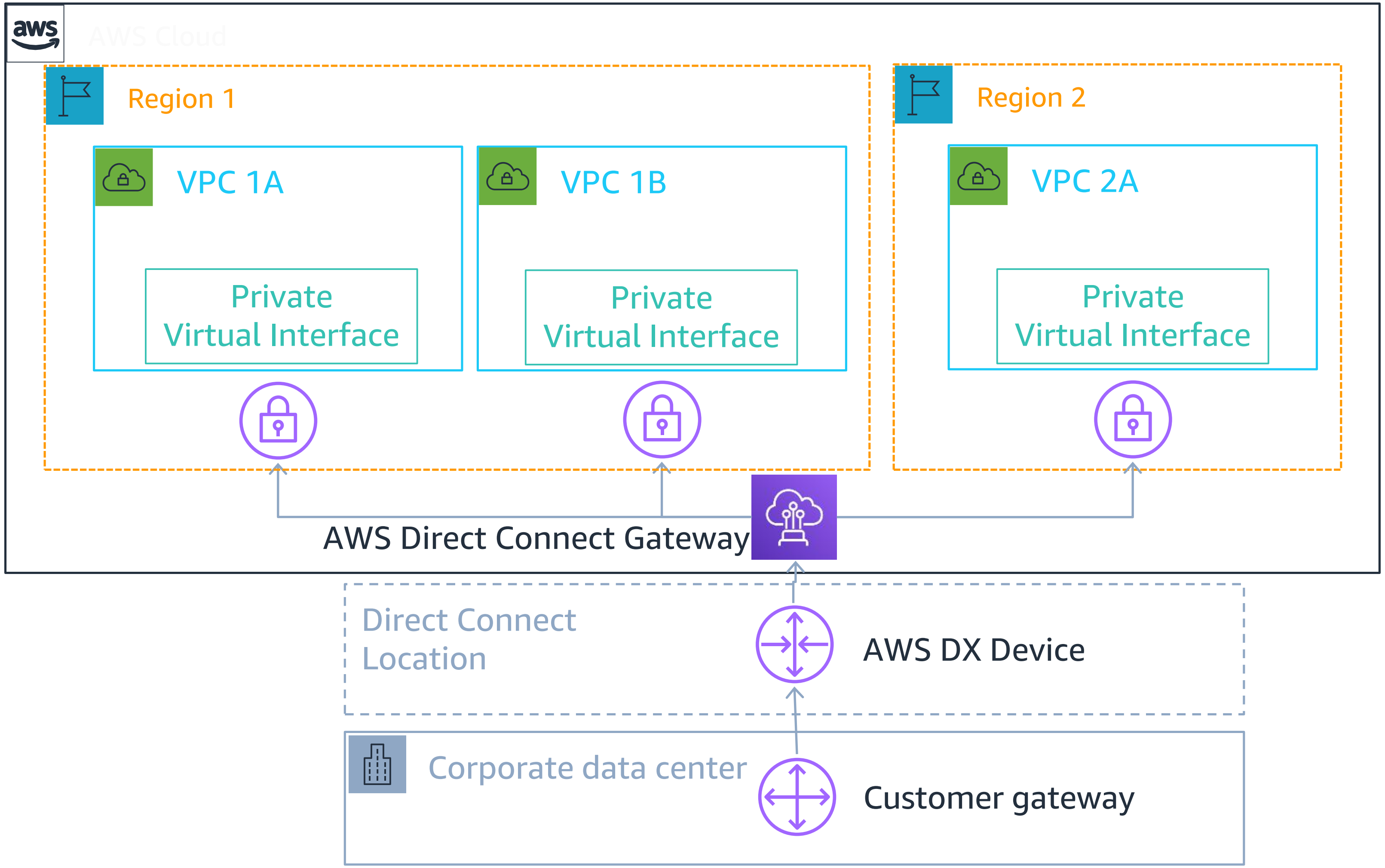
- VIFs: Virtual Interface
- Private VIFs
  - Access to VPC IP address
- Public VIFs
  - Access to AWS Public IP address space



AWS Direct Connect Gateway

How to connect to multiple AWS Regions/Accounts over DX?

- Global resource
- Connect to multiple VPCs
- VPCs can be on same or different
  - Regions
  - Accounts (same Payer ID)
- Enables traffic flow from the VPC to the DX connection
  - For VPC to VPC Traffic, consider using AWS Transit Gateway

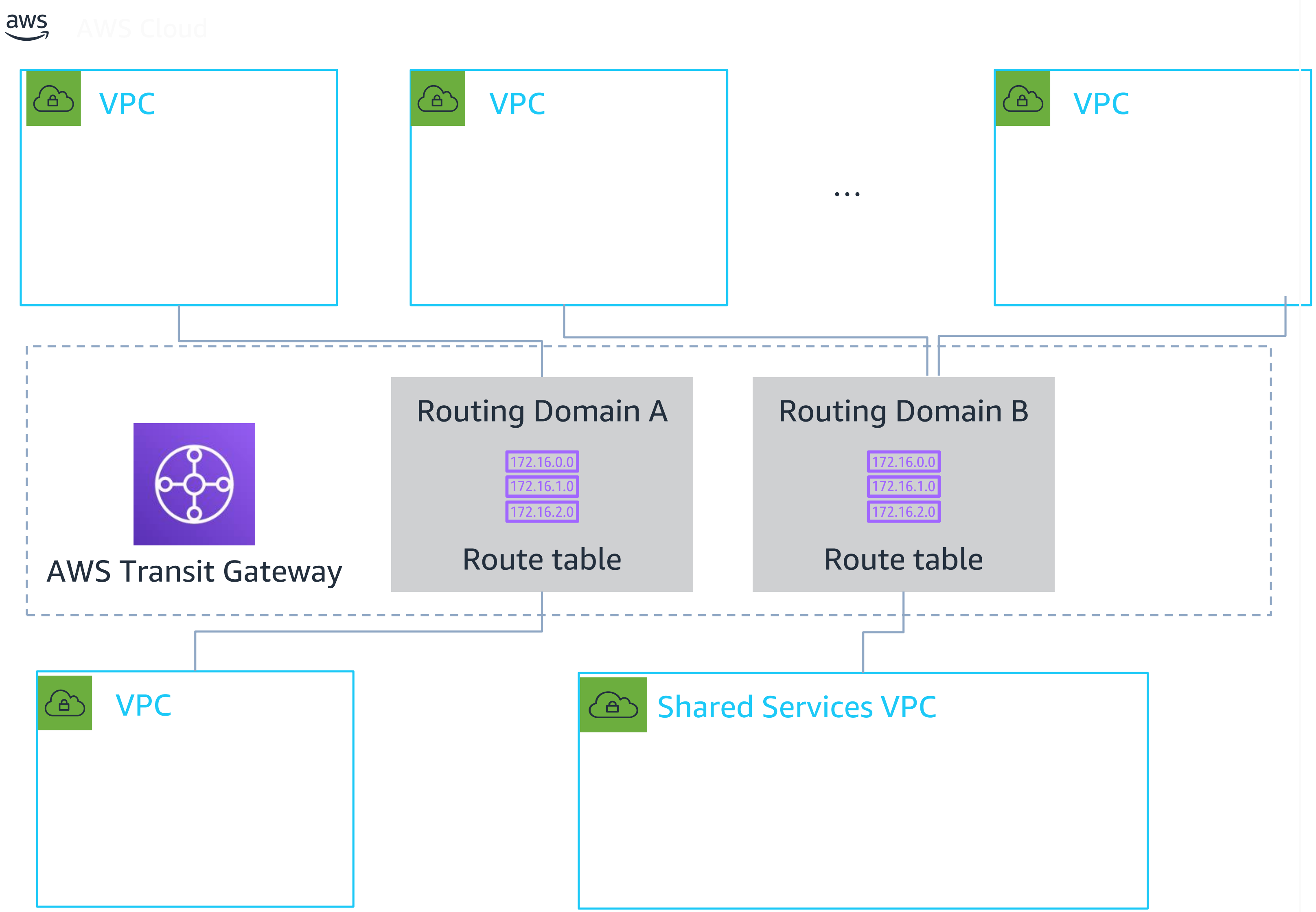


Transit Gateway

How to connect directly to other VPCs?

AWS Transit Gateway

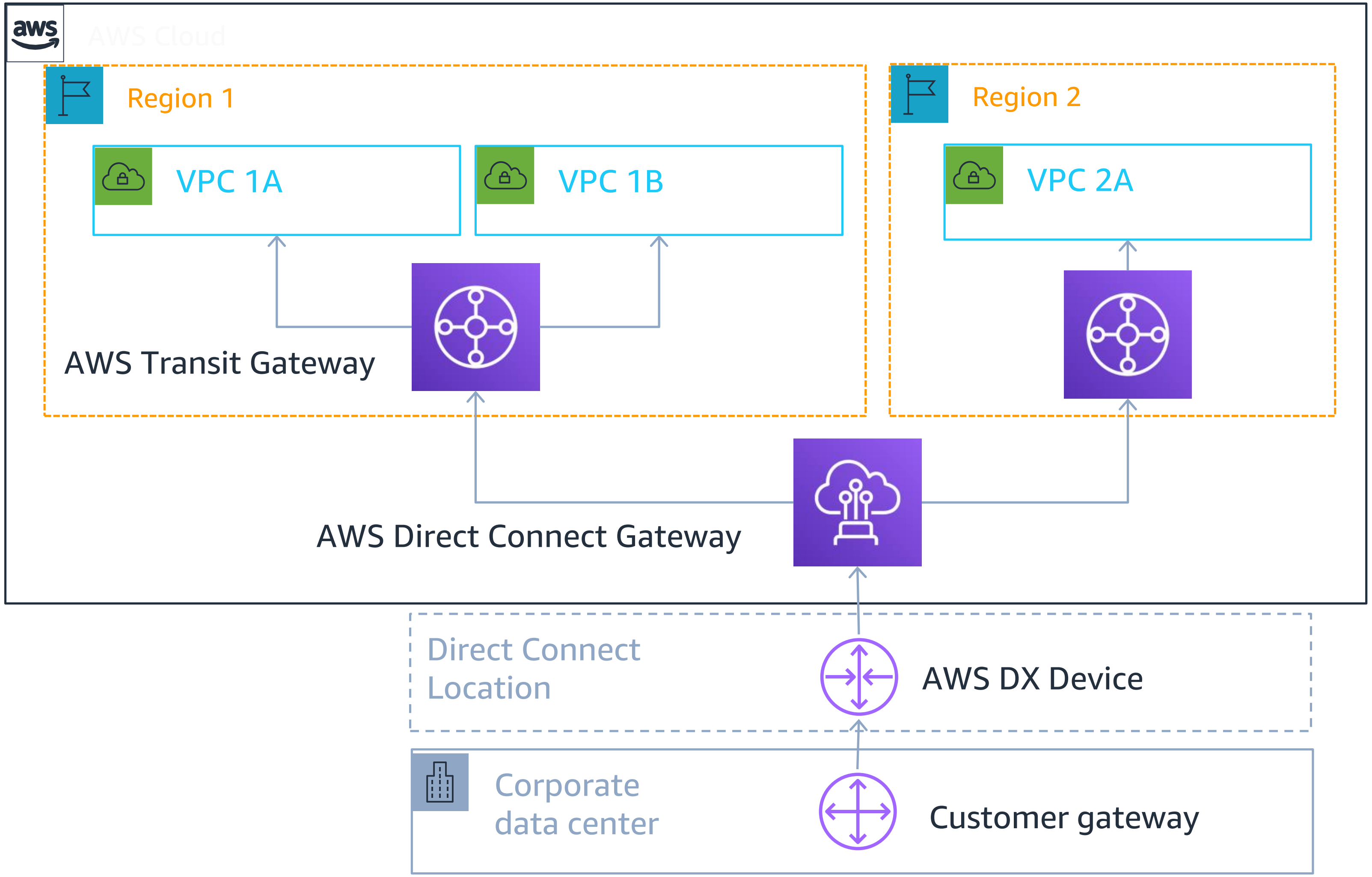
- Connect thousands of VPC across accounts
- Connect your VPCs and on-premises through a single gateway
- Centralize VPN and AWS Direct Connect connections
- Control segmentations and data flow with Routing Tables
- Hub and Spoke design
- Up to 50 Gbps per VPC connection (burst)



How to connect at scale across accounts / Regions?

AWS Transit Gateway + AWS DX Gateway

- Transit VIF
  - Connects to a AWS Transit Gateway
- Simplify your network architecture and management overhead
- Create a hub-and-spoke model that spans multiple
  - VPCs
  - Regions
  - AWS accounts



AWS Global Accelerator

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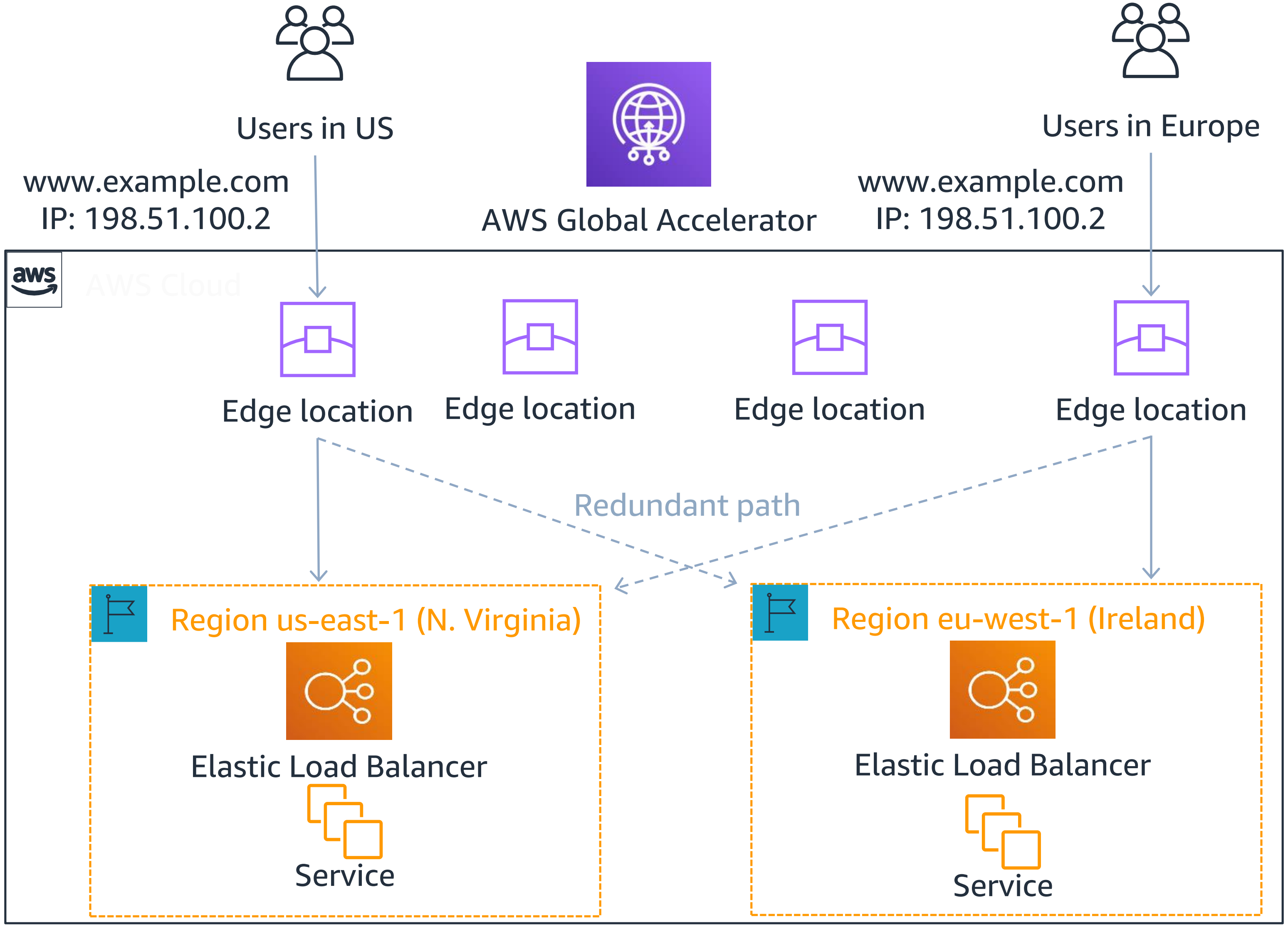
Improve Availability and Performance of Global Services

AWS Global Accelerator

- Uses AWS Global Network from Edge to Region
- Client traffic ingresses via closest available Edge location
- Route client to closest healthy endpoint
- No DNS switchover required, same IP address globally
    - Static IP Anycast



AWS Storage Gateway

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AWS Storage Gateway

A hybrid cloud storage solution that provide on-prem access to cloud storage

Purpose

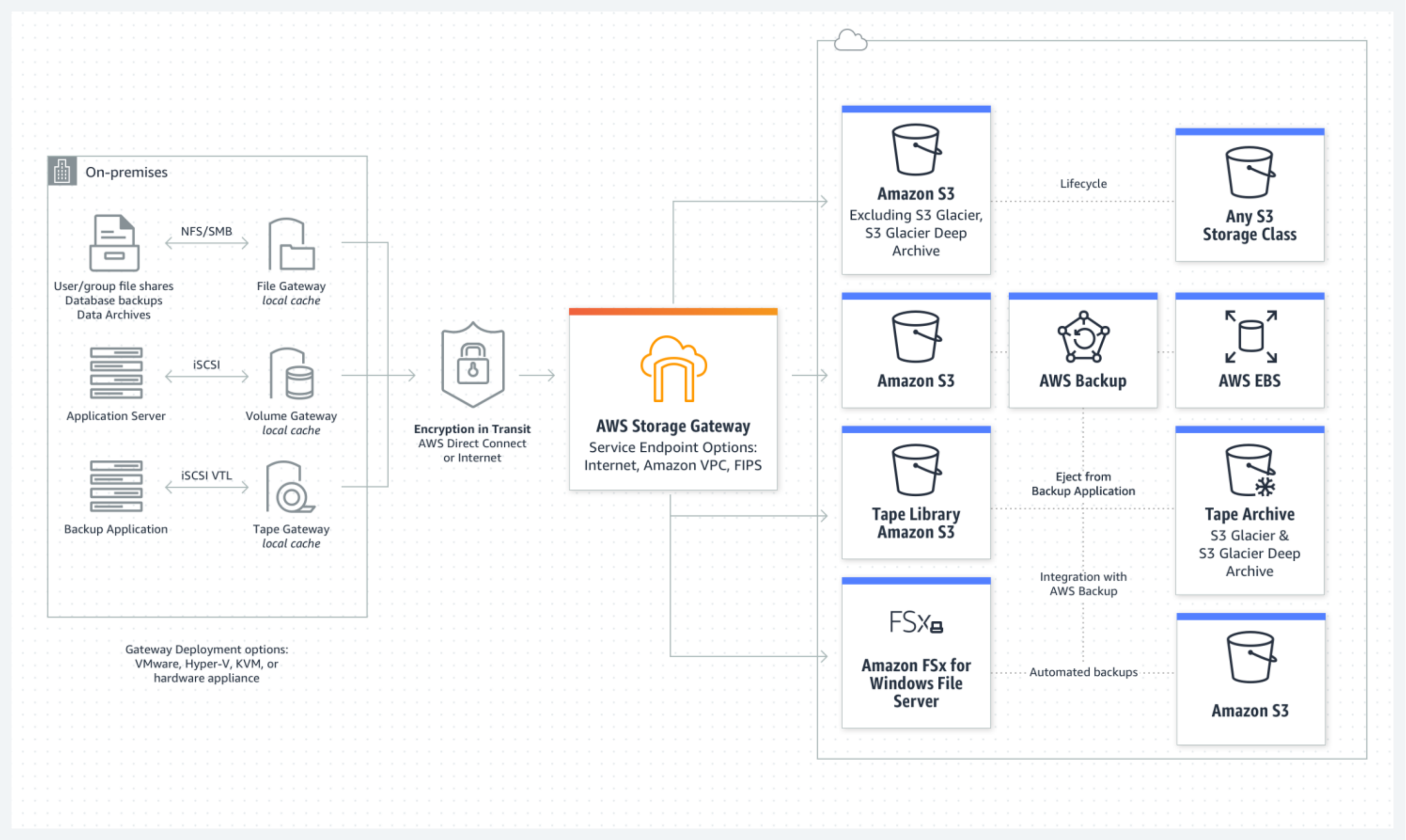
Storage Gateway provides a mechanism to connect on-premise resources to nearly infinite amounts of cloud storage. There are three types of gateways:

- File Gateway, Volume Gateway, and Tape Gateway

Use Cases

Storage Gateway has several use cases. As an SA / in the exam, those include:

- Migrations (Move backups to the cloud)
- Modernization (Use on-prem file shares backed up by cloud storage)
- Continuous Reinvention (Low latency access for on-prem apps to cloud data)



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AWS Storage Gateway - Types

A hybrid cloud storage solution that provide on-prem access to cloud storage

Gateway Types

1. S3 File Gateway: **Native file access** to S3 for backups, archives, and ingest for data lakes
2. FSx File Gateway: Native access to Amazon FSx for on-premises group file shares and home directories
3. Tape Gateway: Drop-in replacement for **physical tape infrastructure** backed by cloud storage with **local caching**
4. Volume Gateway: Block storage on-premises backed by cloud storage with **local caching**, **EBS snapshots**, and clones – integrated with AWS Backup

Amazon S3 File Gateway

Native file access to Amazon S3 for backups, archives, and ingest for data lakes

Amazon FSx File Gateway

Native access to Amazon FSx for on-premises group file shares and home directories

Tape Gateway

Replace physical tape infrastructure leveraging Amazon S3 archive tiers for long-term retention

Volume Gateway

Block storage volumes with snapshots, AWS Backup integrations, and cloud recovery

AWS Security Groups and NACLs

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AWS Security Groups & NACLS

Two AWS features to increase security in your VPC: **security groups** and **network ACLs.**

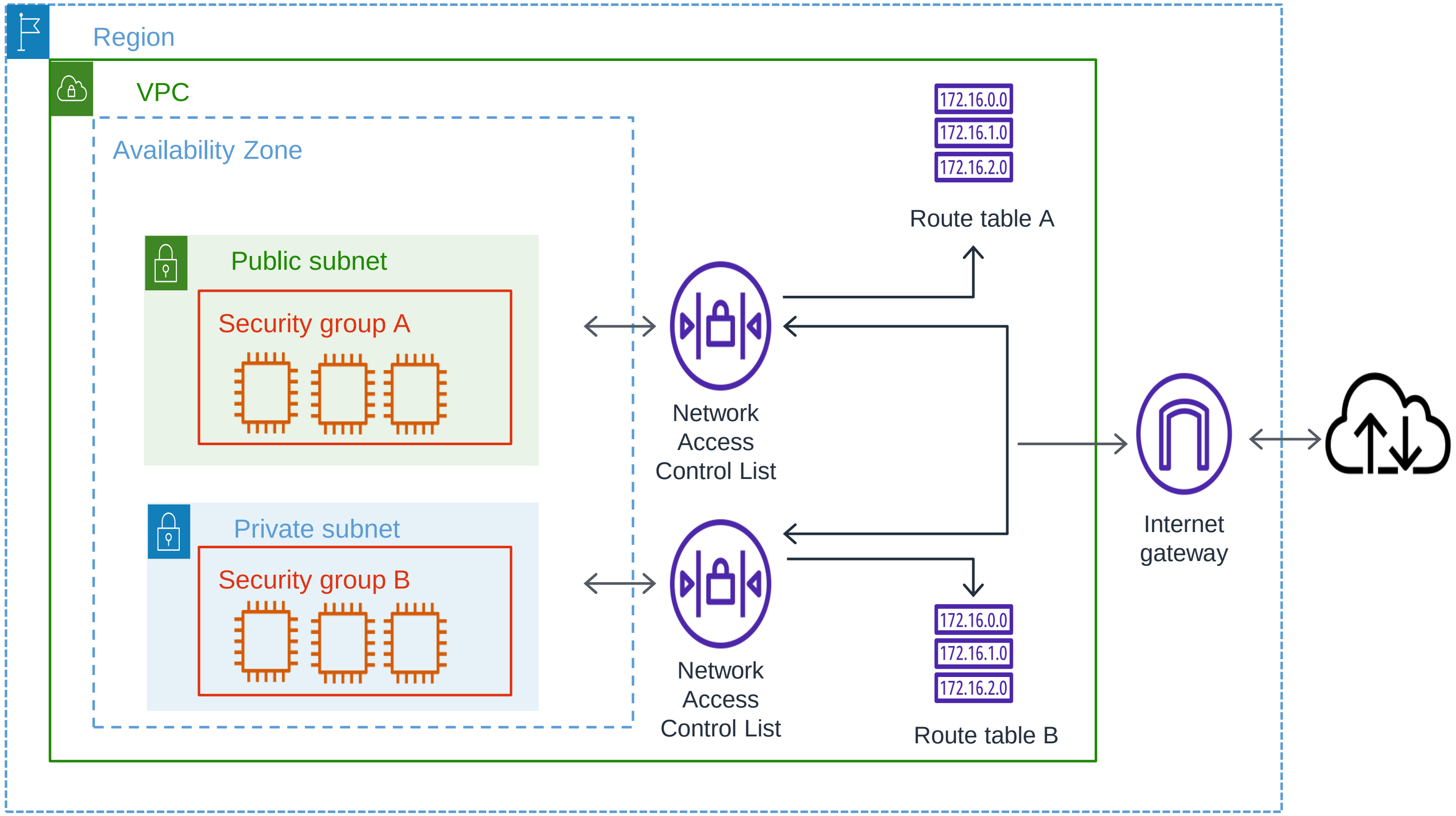
Overview

Security groups: Security groups act as a firewall for associated **Amazon EC2 instances**, controlling both inbound and outbound traffic at the instance level. When you launch an instance, you can associate it with one or more security groups that you've created. If you don't specify a security group when you launch an instance, the instance is automatically associated with the default security group for the VPC.

Network Access Control Lists (ACLs): Network ACLs act as a firewall for associated **subnets**, controlling both inbound and outbound traffic at the subnet level.

Key Exam Topics

- Network ACLs are **stateless**
- Security groups are **stateful**



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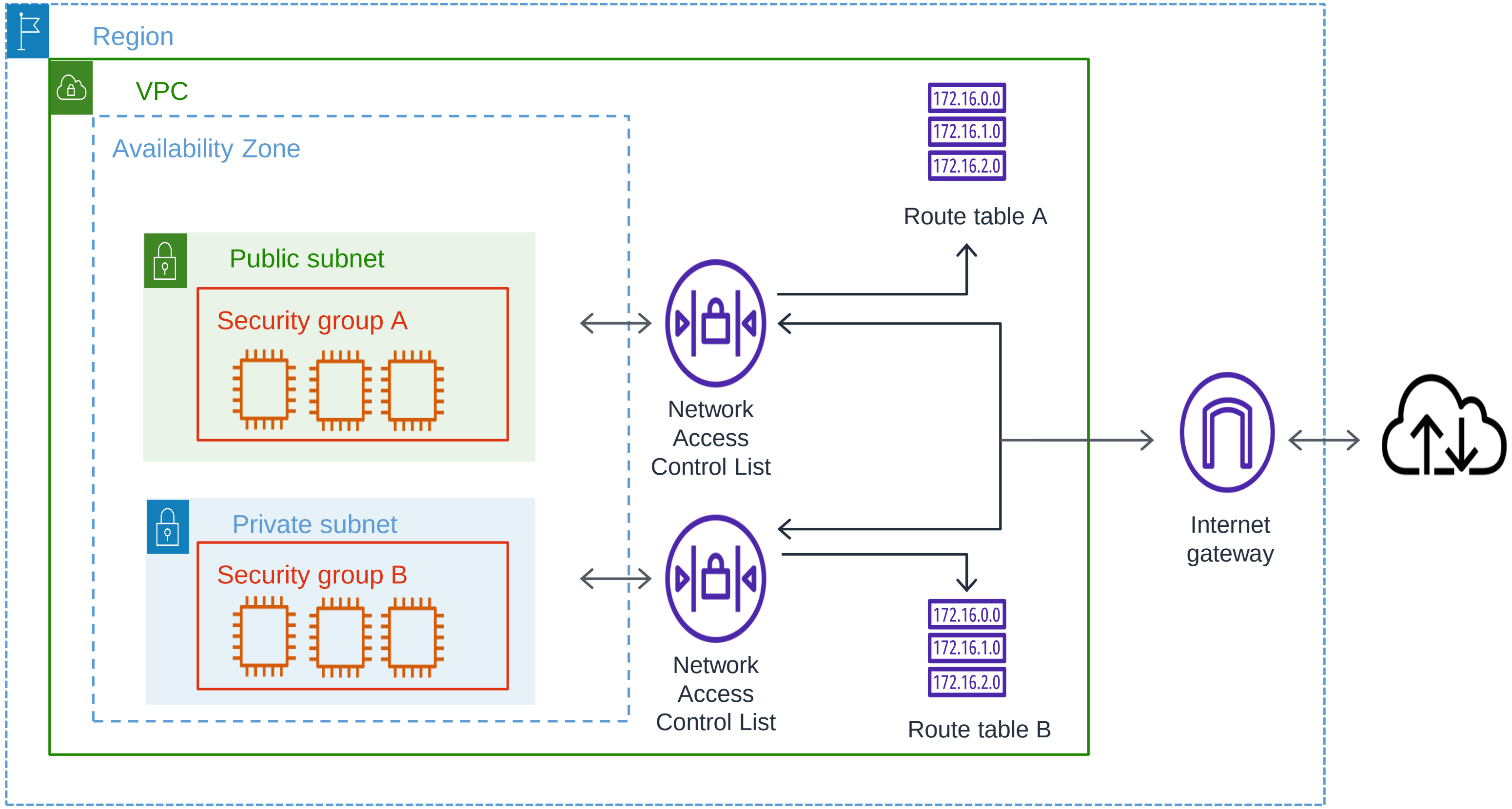
AWS Security Groups & NACLS

Best Practices

- Use **network ACLs** to control access to your **subnets** and use **security groups** to control traffic to **EC2 instances** in your subnets.
- When you add subnets to your VPC, choose multiple Availability Zones (AZs) to ensure that the resources hosted in those subnets are highly available. An AZ is one or more discrete data centers with redundant power, networking, and connectivity in an AWS Region. AZs enable you to make production applications highly available, fault tolerant, and scalable.



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AWS Security Groups

Acts as a virtual firewall, controlling the traffic allowed to reach and leave associated resources

Security Group Components

- Name
- Description
- Protocol
- Port range
- IP address
- IP range
- Security Group name

Other Key Concepts

- You can **only specify allow rules**, but not deny rules.
- When you first create a security group, it has no inbound rules. Therefore, no inbound traffic is allowed until you add inbound rules to the security group.
- Your default VPCs and any VPCs that you create come with a default security group. You can't delete a default security group.

Inbound

Source	Protocol	Port range	Description
The security group ID (its own resource ID)	All	All	Allows inbound traffic from resources that are assigned to the same security group.

Outbound

Destination	Protocol	Port range	Description
0.0.0.0/0	All	All	Allows all outbound IPv4 traffic.
::/0	All	All	Allows all outbound IPv6 traffic. This rule is added only if your VPC has an associated IPv6 CIDR block.

This table describes the default rules for a default security group.

AWS Network Access Controls Lists (NACLs)

Optional layer of security for VPC that acts as a firewall controlling traffic in and out of **subnets**

Purpose

You might set up network ACLs with rules similar to your security groups in order to add an additional layer of security to your VPC.

Key Components

A network ACL has **separate** inbound and outbound rules, and each rule can either **allow or deny** traffic.

A network ACL contains a numbered list of rules. AWS **evaluates the rules in order**, starting with the lowest numbered rule, to determine whether traffic is allowed in or out of any subnet associated with the network ACL.

Inbound

Rule #	Type	Protocol	Port range	Source	Allow/Deny
100	All IPv4 traffic	All	All	0.0.0.0/0	ALLOW
*	All IPv4 traffic	All	All	0.0.0.0/0	DENY

Outbound

Rule #	Type	Protocol	Port range	Destination	Allow/Deny
100	All IPv4 traffic	All	All	0.0.0.0/0	ALLOW
*	All IPv4 traffic	All	All	0.0.0.0/0	DENY

Each network ACL also includes a rule whose rule number is an asterisk. This rule ensures **that if a packet doesn't match any of the other numbered rules, it's denied**. You can't modify or remove this rule.

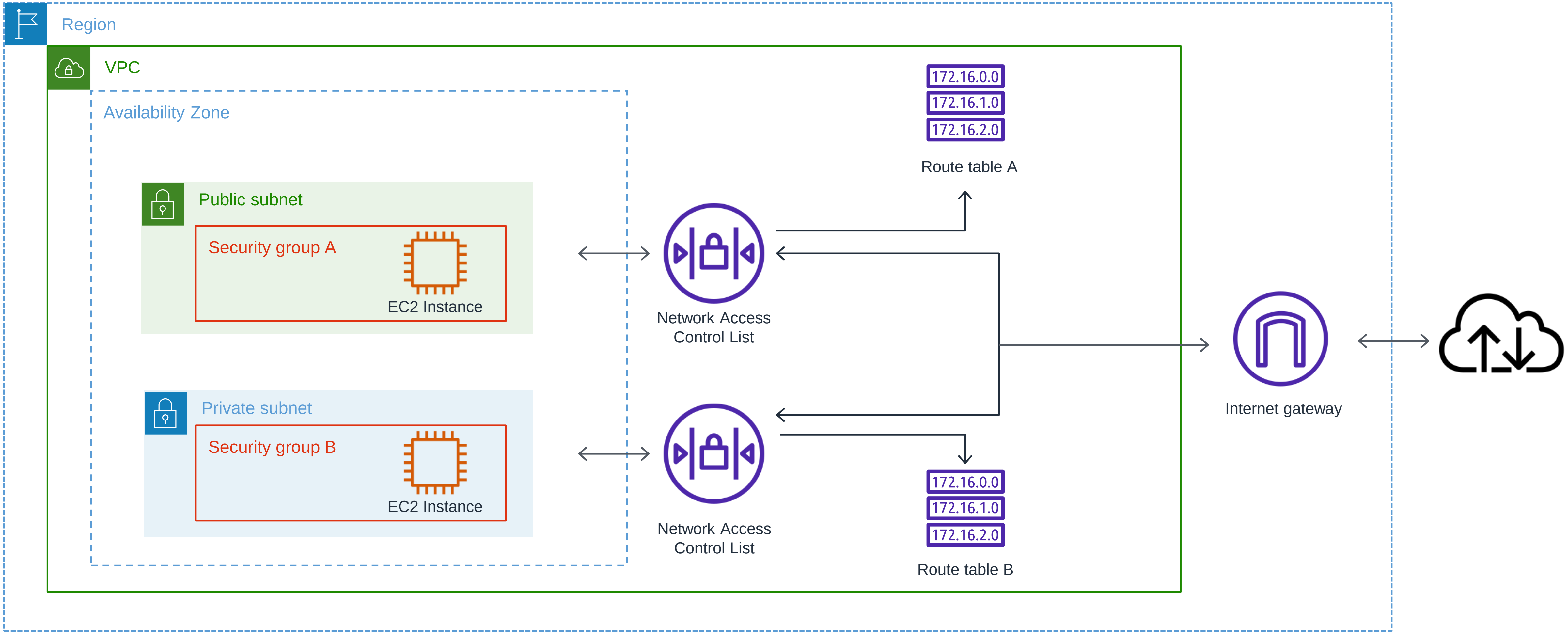
Security Groups and NACLs

Security group

Security Group	Network ACL
Operates at the instance level	Operates at the subnet level
Supports allow rules only	Supports allow rules and deny rules
Is **stateful:** Return traffic is automatically allowed, regardless of any rules	Is **stateless:** Return traffic must be explicitly allowed by rules
We evaluate all rules before deciding whether to allow traffic	We process rules in order, starting with the lowest numbered rule, when deciding whether to allow traffic
Applies to an instance only if someone specifies the security group when launching the instance, or associates the security group with the instance later on	Automatically applies to all instances in the subnets that it's associated with (therefore, it provides an additional layer of defense if the security group rules are too permissive)

Security Groups and NACLs Diagram

Layered security approach for additional defense



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AWS Elastic Block Store (EBS)

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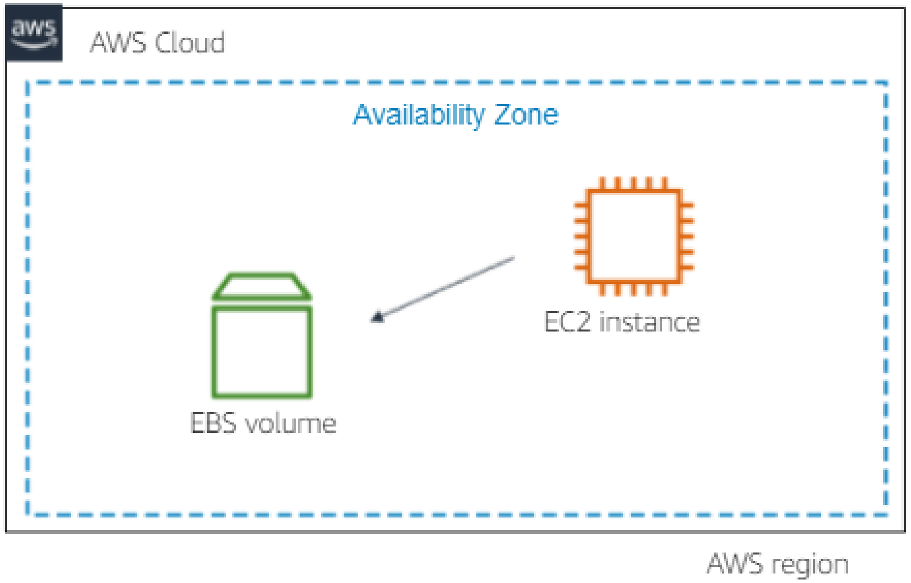
Amazon Elastic Block Store (EBS)

Provides durable, block-level storage for use with EC2 instances

What does it do?

Network attached storage that persists independently from the instance and acts as a physical hard drive, similar to the local disk drive on a physical machine. Once deployed in an AZ, it is automatically replicated to prevent data loss, and can be attached to any instance in the same AZ.

An individual EBS volume can only be attached to one EC2 instance. However, an instance can have multiple EBS volumes attached to it.



Amazon Elastic Block Store (EBS)

There are five types of EBS volumes that are available for workloads

General Purpose (SSD)	Provisioned IOPs (SSD)	Throughput Optimized HDD	Cold HDD	EBS Magnetic
General Purpose SSD volume that balances price and performance for a wide variety of transactional workloads	Highest-performance SSD volume designed for mission-critical applications	Low Cost HDD volume designed for frequently accessed, throughput-intensive workloads	Lowest Cost HDD volume designed for less frequently accessed workloads	Previous Generation HDD
gp2	io1	st1	sc1	standard

EBS – General Purpose (SSD)

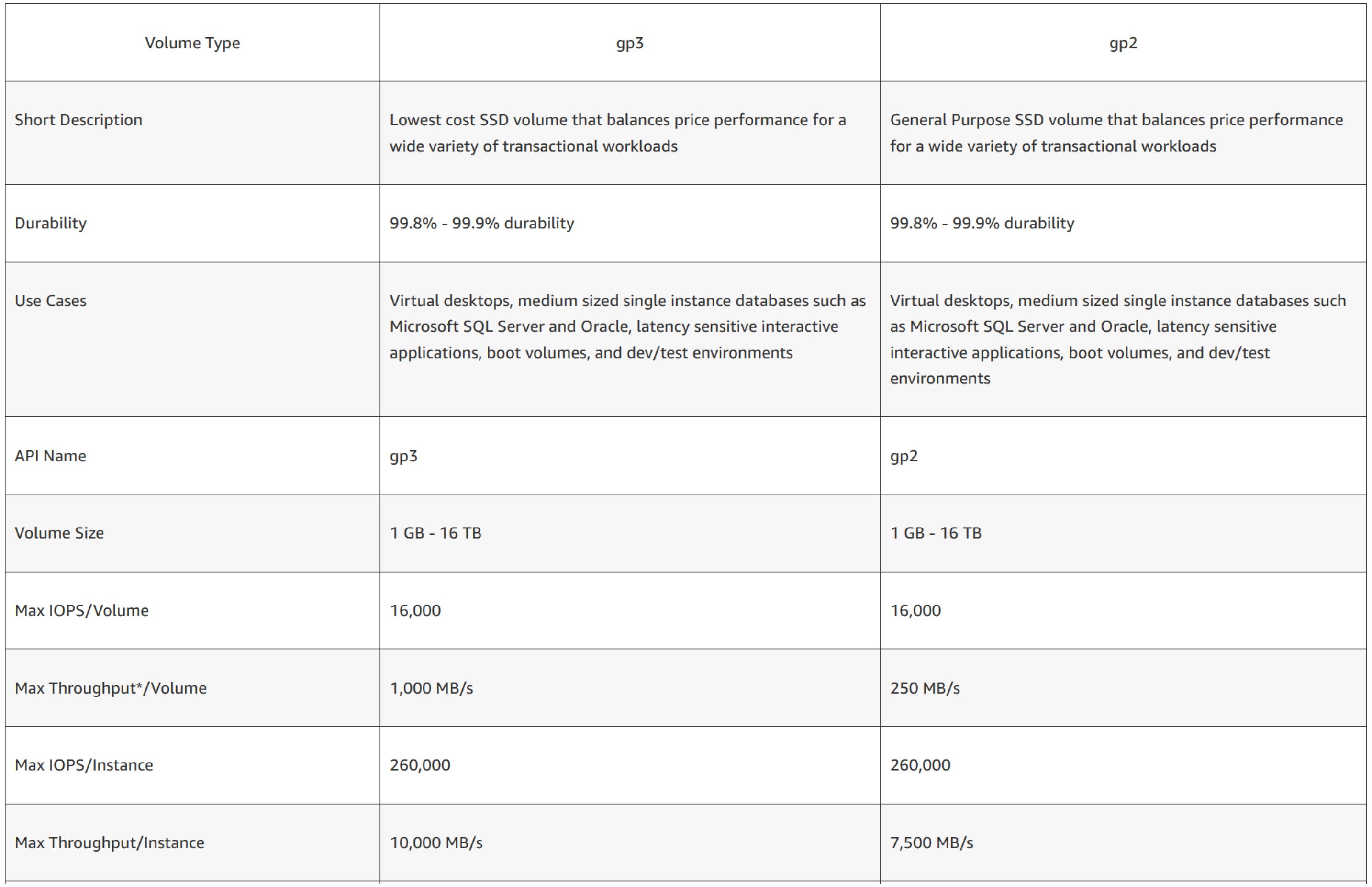
The general purpose block store suitable for most transactional workloads

Overview

General Purpose (gp) volumes are best suited for a wide range of workloads (the one size fits all workhorse). The API name for this volume type is gp (2 or 3).

Volume Size and IOPS

The gp volume size ranges from 1 GiB to 16 TiB in size. The gp2 volume can also be configured to accommodate up to 16,000 IOPS of throughput.



Volume Type	gp3	gp2
Short Description	Lowest cost SSD volume that balances price performance for a wide variety of transactional workloads	General Purpose SSD volume that balances price performance for a wide variety of transactional workloads
Durability	99.8% - 99.9% durability	99.8% - 99.9% durability
Use Cases	Virtual desktops, medium sized single instance databases such as Microsoft SQL Server and Oracle, latency sensitive interactive applications, boot volumes, and dev/test environments	Virtual desktops, medium sized single instance databases such as Microsoft SQL Server and Oracle, latency sensitive interactive applications, boot volumes, and dev/test environments
API Name	gp3	gp2
Volume Size	1 GB - 16 TB	1 GB - 16 TB
Max IOPS/Volume	16,000	16,000
Max Throughput*/Volume	1,000 MB/s	250 MB/s
Max IOPS/Instance	260,000	260,000
Max Throughput/Instance	10,000 MB/s	7,500 MB/s

EBS – Provisioned IOPs (SSD)

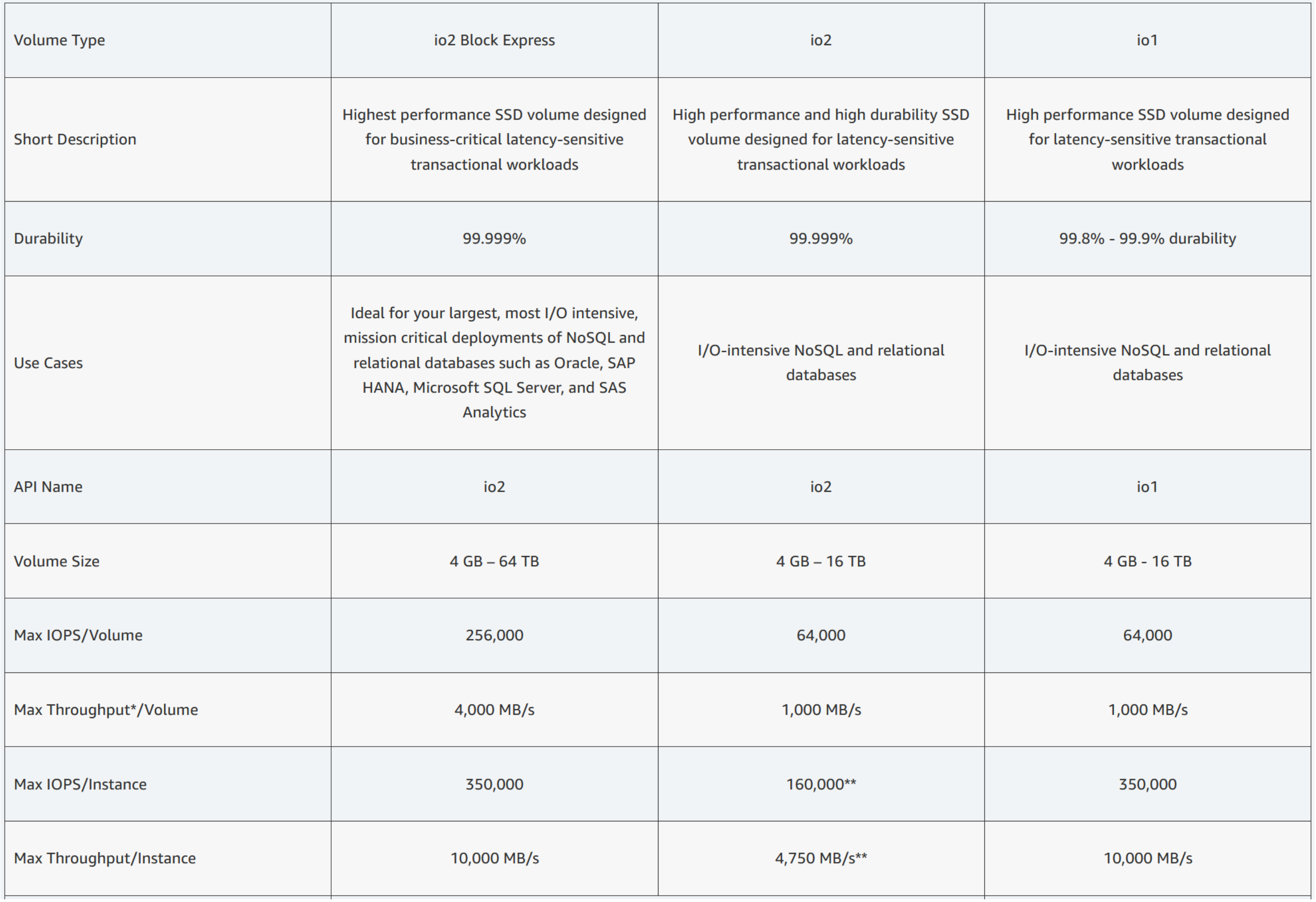
High-performing SSD volumes for mission-critical applications

Overview

Provisioned IOPs (io) volumes are best suited for mission-critical workloads where sustained IOPs performance is required. These volume types are most often used in support of database workloads.

Volume Size and IOPS

The io volume size ranges from 4 GiB to 16 TiB in size. The io1 and io2 volumes can also be configured to accommodate up to 64,000 IOPS of throughput. The newer io2 Block Express volume can support up to 256,000 IOPS *(This is A LOT of IOPS).*



Volume Type	io2 Block Express	io2	io1
Short Description	Highest performance SSD volume designed for business-critical latency-sensitive transactional workloads	High performance and high durability SSD volume designed for latency-sensitive transactional workloads	High performance SSD volume designed for latency-sensitive transactional workloads
Durability	99.999%	99.999%	99.8% - 99.9% durability
Use Cases	Ideal for your largest, most I/O intensive, mission critical deployments of NoSQL and relational databases such as Oracle, SAP HANA, Microsoft SQL Server, and SAS Analytics	I/O-intensive NoSQL and relational databases	I/O-intensive NoSQL and relational databases
API Name	io2	io2	io1
Volume Size	4 GB – 64 TB	4 GB – 16 TB	4 GB - 16 TB
Max IOPS/Volume	256,000	64,000	64,000
Max Throughput*/Volume	4,000 MB/s	1,000 MB/s	1,000 MB/s
Max IOPS/Instance	350,000	160,000**	350,000
Max Throughput/Instance	10,000 MB/s	4,750 MB/s**	10,000 MB/s

EBS – Throughput Optimized (HDD)

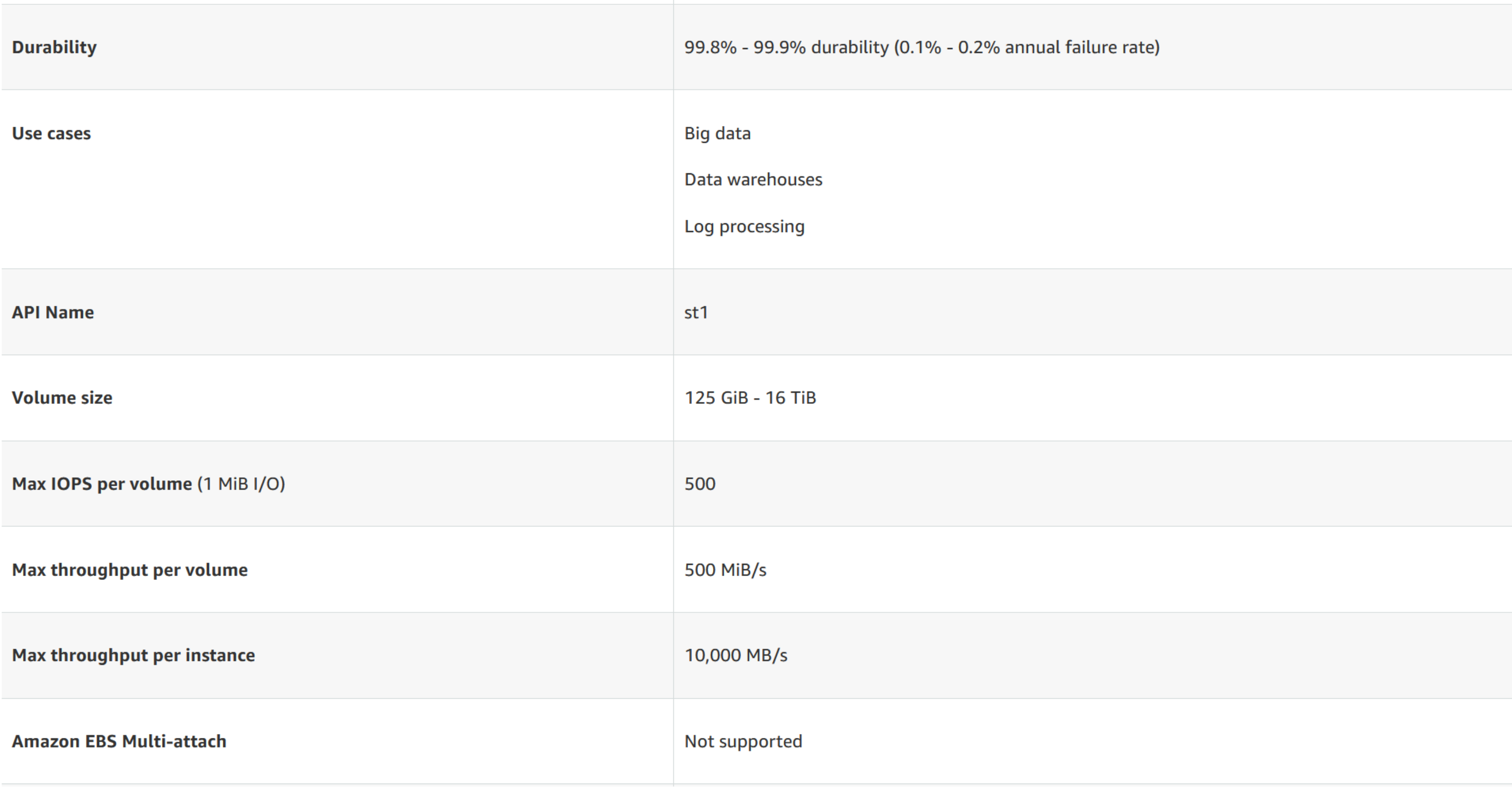
Low cost HDD volumes designed for frequently-accessed, throughput-intensive workloads

Overview

Throughput Optimized (st) volumes are best suited for frequently-accessed, throughput-intensive workloads. Some example use cases include volume stores in support of data lakes or data warehouses.

Volume Size and IOPS

The st1 volume size ranges from 125 GiB to 16 TiB in size. The st1 volume can be configured to support up to 500 MiB/s per volume.



Durability	99.8% - 99.9% durability (0.1% - 0.2% annual failure rate)
Use cases	Big data Data warehouses Log processing
API Name	st1
Volume size	125 GiB - 16 TiB
Max IOPS per volume (1 MiB I/O)	500
Max throughput per volume	500 MiB/s
Max throughput per instance	10,000 MB/s
Amazon EBS Multi-attach	Not supported

EBS – Cold HDD

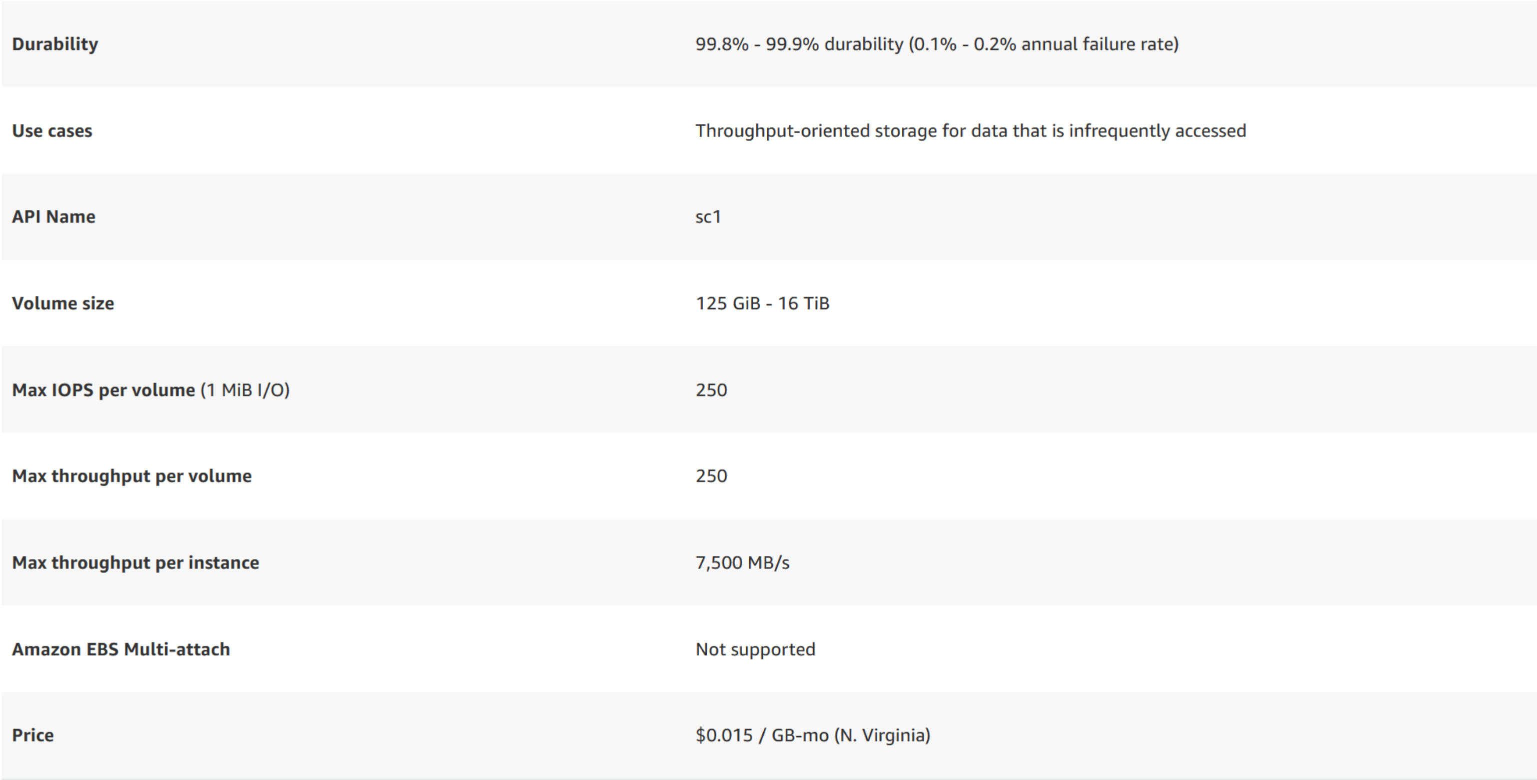
Lowest cost HDD volume designed for less frequently accessed workloads

Overview

Cold HDD (sc) volumes are the lowest cost block store that are best suited for infrequently-accessed data workloads. Some example use cases include file servers and throughput oriented storage for data that is infrequently accessed.

Volume Size and IOPS

The sc1 volume size ranges from 125 GiB to 16 TiB in size. The sc1 volume can be configured to support up to 250 MiB/s per volume.



Durability	99.8% - 99.9% durability (0.1% - 0.2% annual failure rate)
Use cases	Throughput-oriented storage for data that is infrequently accessed
API Name	sc1
Volume size	125 GiB - 16 TiB
Max IOPS per volume (1 MiB I/O)	250
Max throughput per volume	250
Max throughput per instance	7,500 MB/s
Amazon EBS Multi-attach	Not supported
Price	$0.015 / GB-mo (N. Virginia)

EBS – Magnetic

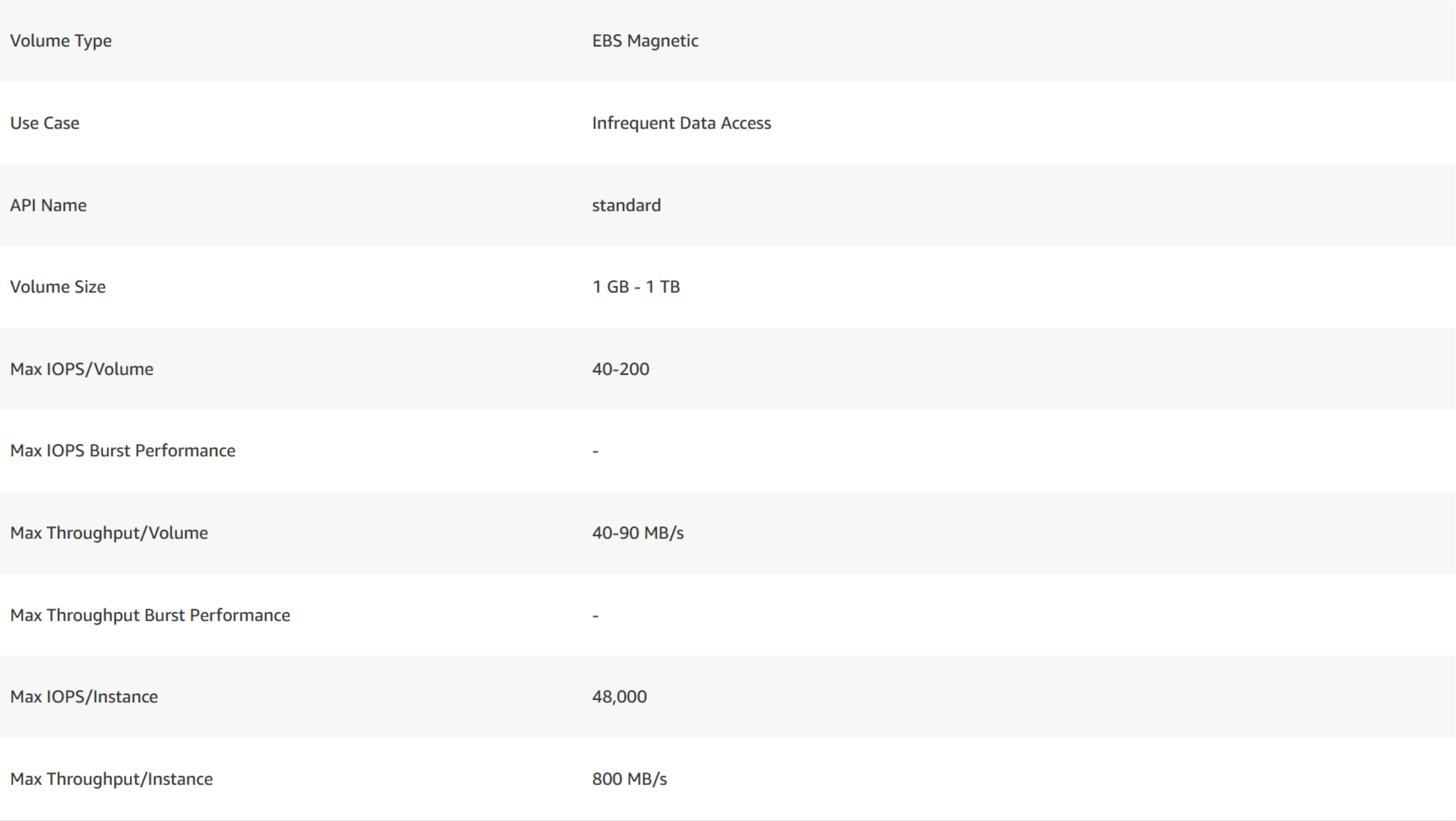
Previous Generation HDD storage solution

Overview

EBS Magnetic volumes are backed by hard disk drives (HDDs) and can be used for workloads with smaller datasets where data is accessed infrequently or when performance consistency isn't of primary importance.

Volume Size and IOPS

The Magnetic volume size ranges from 1 GiB to 1 TiB in size. The magnetic volume can be configured to support 40 – 200 MiB/s per volume.



Volume Type	EBS Magnetic
Use Case	Infrequent Data Access
API Name	standard
Volume Size	1 GB - 1 TB
Max IOPS/Volume	40-200
Max IOPS Burst Performance	-
Max Throughput/Volume	40-90 MB/s
Max Throughput Burst Performance	-
Max IOPS/Instance	48,000
Max Throughput/Instance	800 MB/s

Thank you!

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