





Agenda

1. Amazon VPC
2. Amazon VPC Use Case
 - Alex
3. How to transition from tech domain to Cloud?
 - Prasad and Christelle

AWS Services Stack



Platform
Services

Databases

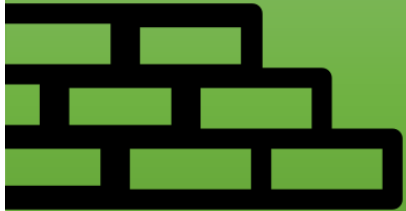
Analytics

App Services

Deployment

Mgmt.

Many More...



Foundation
Services

Compute

Networking

Storage



Global
Infrastructure

Regions

Availability
Zones

Edge
Locations



Become a Solutions Architect

Networking in AWS



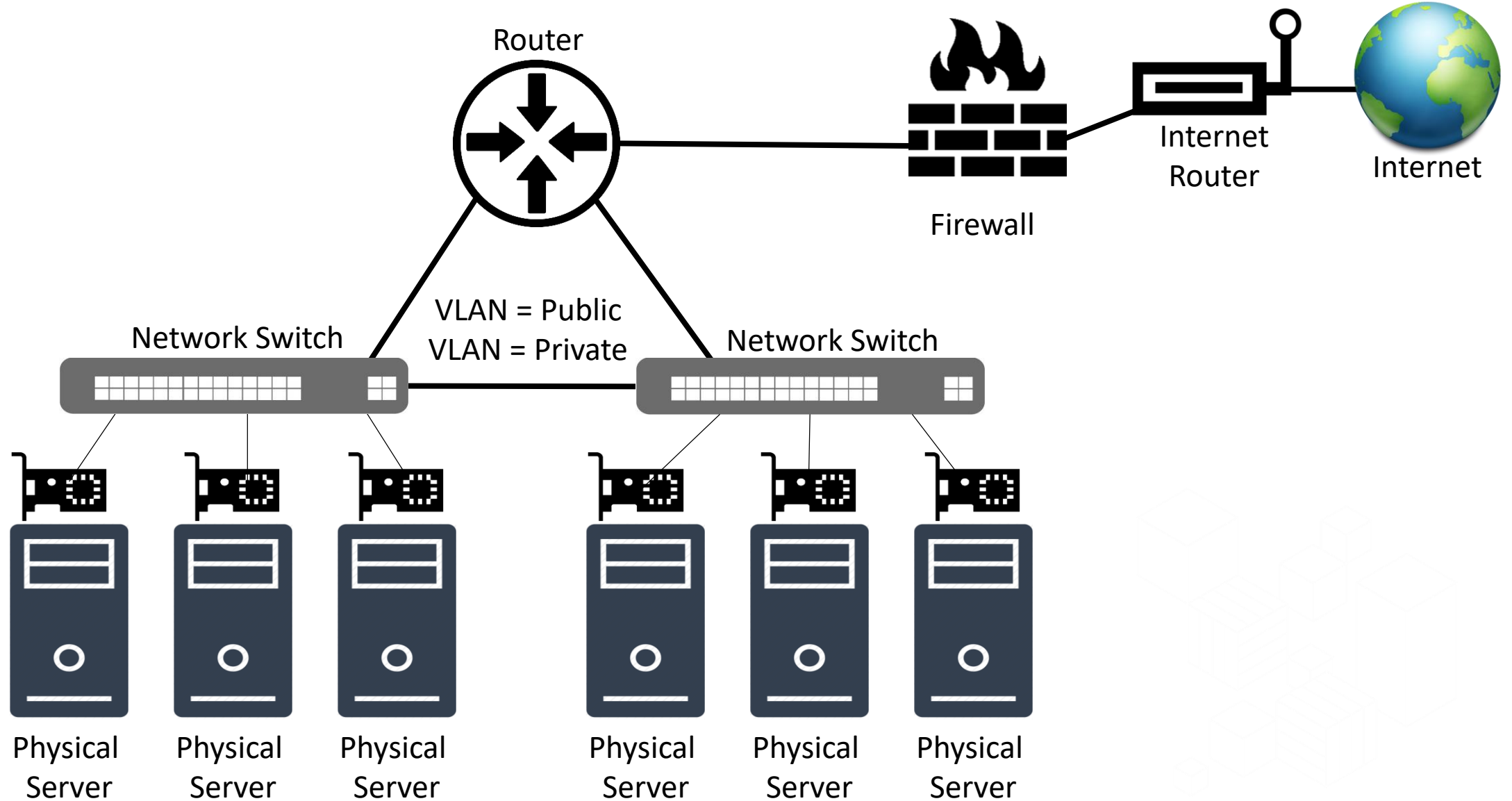
Amazon VPC



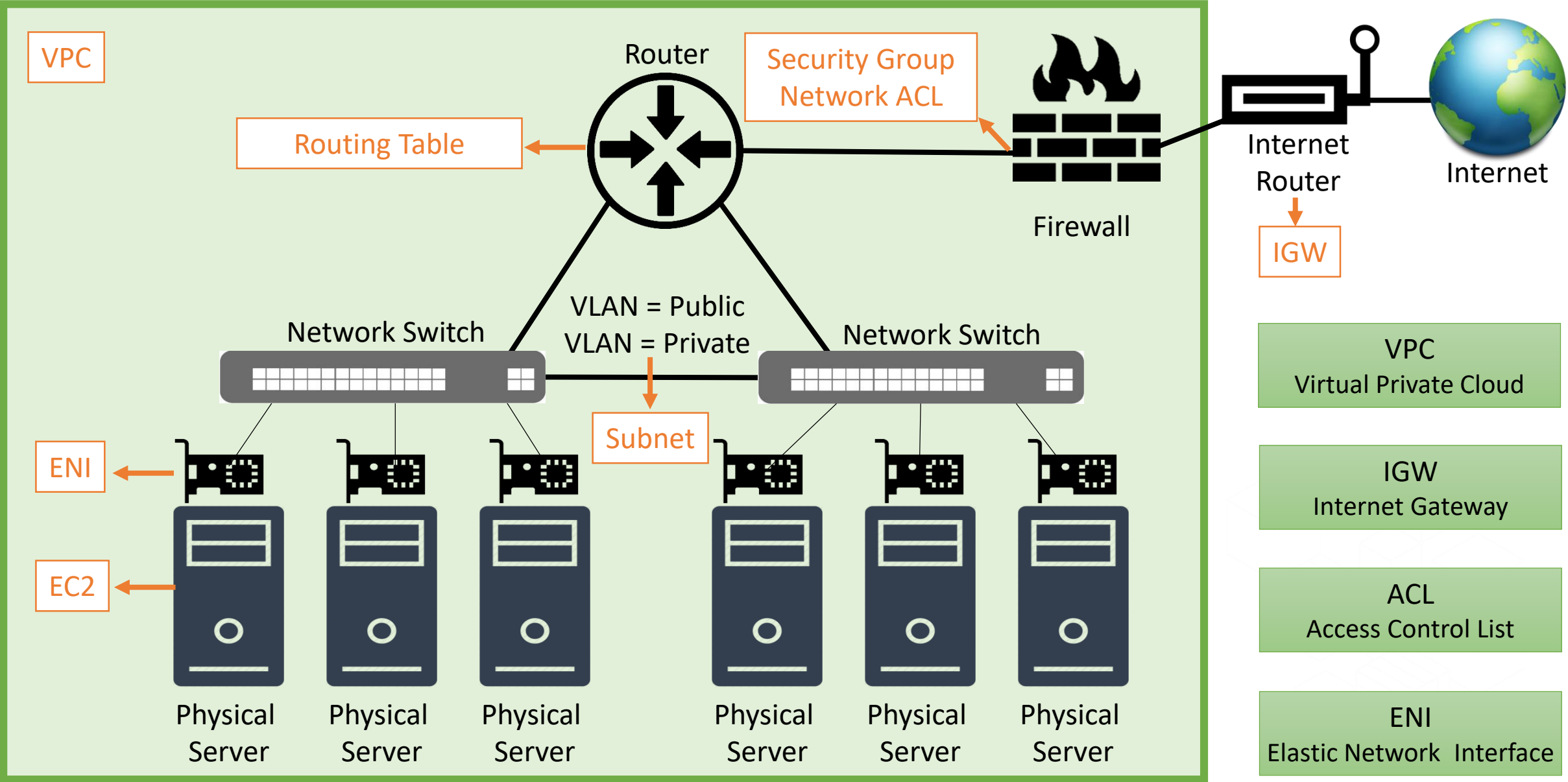


Networking Basics

Networking in Physical World



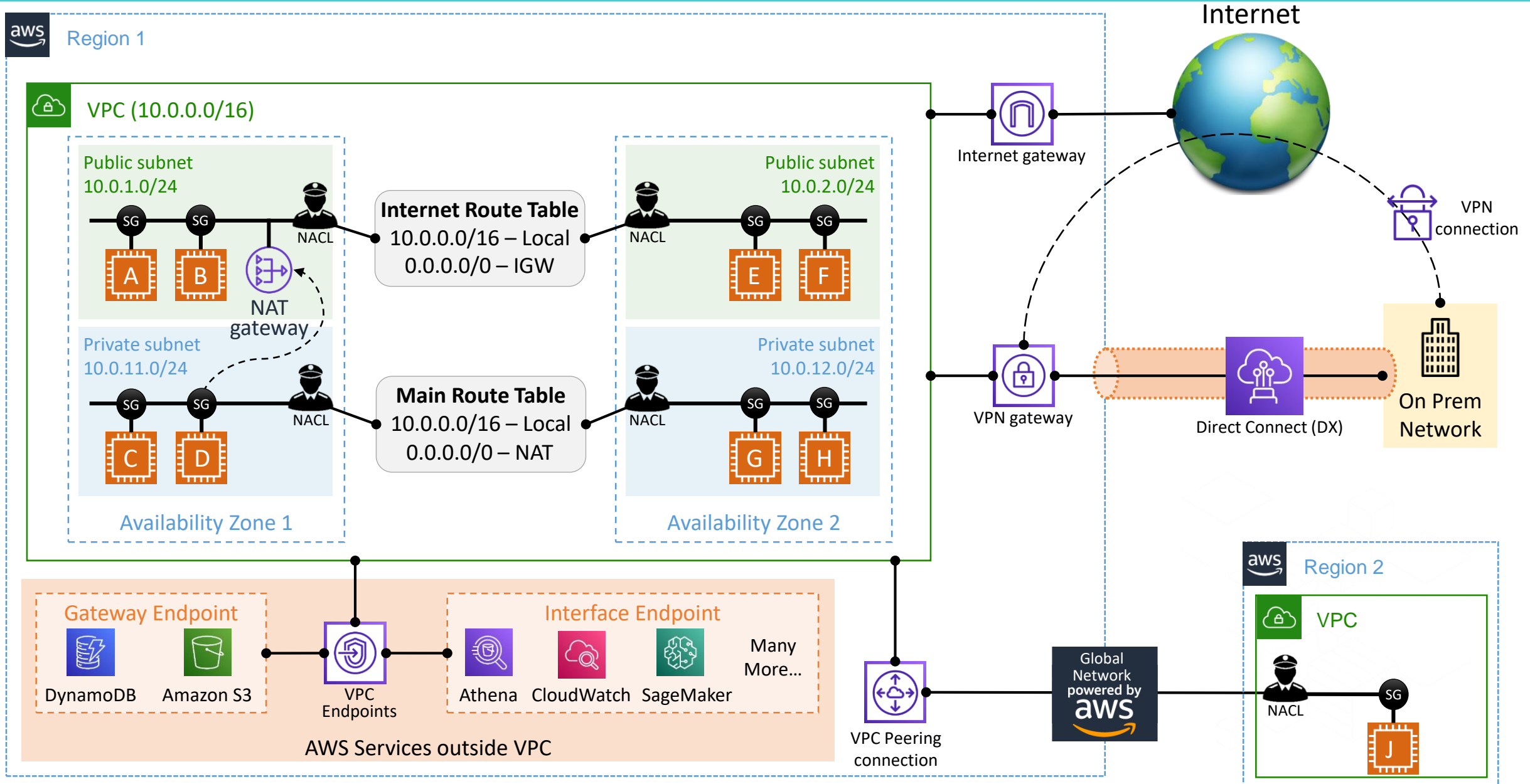
Networking in AWS





Amazon VPC

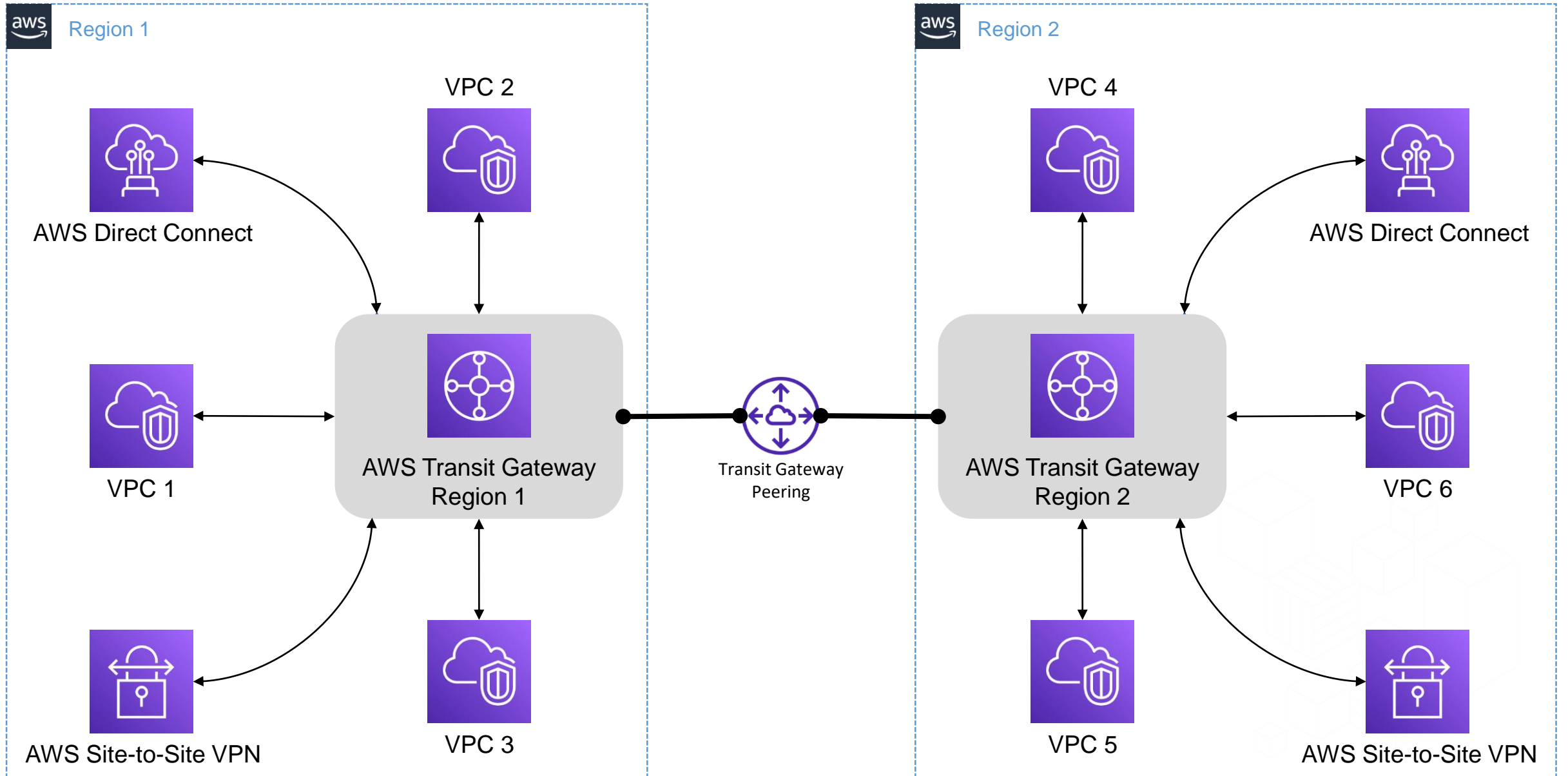
Amazon VPC

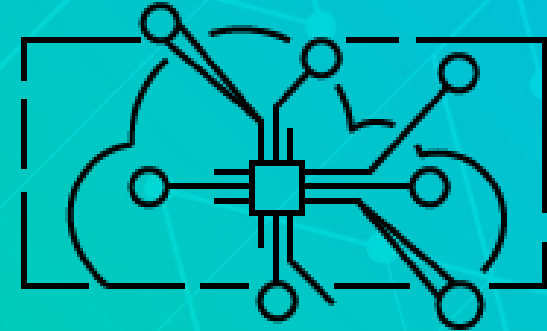


Security Group vs. Network ACL

Security Group	Network ACL
Applied at Instance (ENI) Level	Applied at Subnet Level
Stateful - Response is always allowed	Stateless - Request and Response both have to be allowed
Default Rules (For Default SG) <ul style="list-style-type: none">- All inbound is allowed from the same SG- All outbound is Allowed Default Rules (For a new SG) <ul style="list-style-type: none">- All Inbound is Deny- All outbound in Allowed	Default Rules (For Default NACL) <ul style="list-style-type: none">- All inbound is Allowed- All outbound is Allowed Default Rules (For a new NACL) <ul style="list-style-type: none">- All inbound is Deny- All outbound is Deny
1 Instance can have many SG assigned	1 Subnet can have only 1 NACL
Only allow statements	Allow and Deny both statements
Order is not important	Order is important (lower order rule is applied first)
Source - IP / IP Range / Port / SG-<xxxxxxx>	Source - IP / Port / IP Range

Transit Gateway





IP Addresses

Private, Public and Elastic IPs

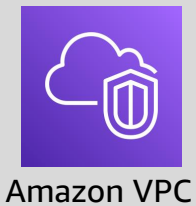
	Private IP	Public IP	Elastic IP
Used for	Internal Communication	External Communication	External Communication
Mandatory / Optional	Mandatory	Optional	Optional
After Power Cycle	Stays same	Renewed	Stays same
Allocated to	Instance (ENI)	Instance (ENI)	Account (then associated)
Charges	No	No	Charged if unused

Reference:

[FAQs](#)

Category:

Networking
and Content
Delivery



What?

- Amazon Virtual Private Cloud (Amazon VPC) enables you to provision a logically isolated section of the AWS Cloud where you can launch AWS resources in a virtual network that you have defined.
- This virtual network closely resembles a traditional network that you would operate in your own data center.

Why?

- You can define your own network space, and control how your network and the Amazon EC2 resources inside your network are exposed to the Internet.
- You can also leverage more granular access to and from the Amazon EC2 instances in your virtual network.

When?

- You want to launch AWS resources in a logically isolated virtual network and spend less time setting up, managing, and validating your virtual network.
- You want to use multiple layers of security, including security groups and network access control lists.

Where?

- VPC is a regional entity and spans across all of the Availability Zones in the region.
- Each subnet must reside entirely within one Availability Zone and cannot span zones.
- You can launch AWS resources, such as EC2 instances, into a specific subnet.

Who?

- Your AWS resources are automatically provisioned in a ready-to-use default VPC or you can create additional VPCs.
- You can specify an IP address range for the VPC, add subnets, associate security groups, and configure route tables.

How?

- When you create a VPC, you must specify an IPv4 CIDR block for the VPC. Afterwards you can add subnets, route tables, security groups, network access control list, an internet gateway, and other gateways as necessary.

How much?

- There is no additional charge for using a VPC. There are charges for some VPC components, such as NAT gateways, Reachability Analyzer, and traffic mirroring. Usage charges for other Amazon Web Services, including Amazon EC2, still apply at published rates for those resources, including data transfer charges.

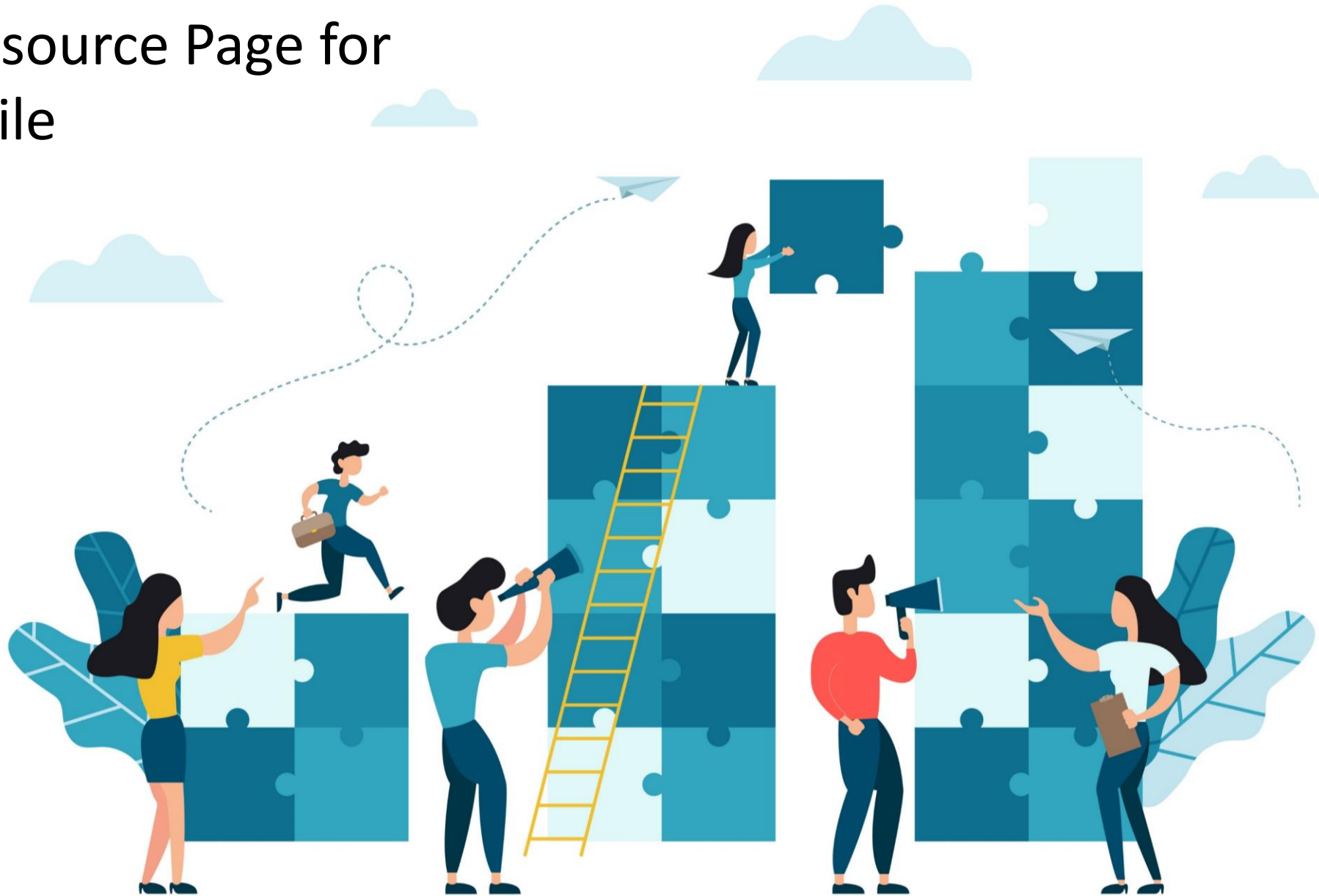
Created by:

[Ashish Prajapati](#)



Amazon VPC Use Case

Check Resource Page for
draw.io file



How to transition from tech domain to Cloud?

Prasad and Christelle



Thank you for attending. See you next Saturday (04-Jun-2022)



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