

Day-4

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Today we have covered some very important topics that are: VPC (Virtual Private Cloud) and its component, peering 2 VPC's & S3 Bucket. The Contents are as Follows:

▼ Virtual private cloud

Your VPCs

Subnets

Route tables

VPC: A VPC stands for Virtual Private Cloud. It allows you to create a secure, private environment for cloud services same as a traditional data center.

Subnet: A subnet is a smaller network within a larger network. It's like dividing a large room into smaller rooms.

Subnets (3) Info

Last updated 39 minutes ago Actions Create subnet

Find resources by attribute or tag

<input type="checkbox"/>	Name	Subnet ID	State	VPC	Block Public...	IPv4 CIDR	IPv6 CIDR
<input type="checkbox"/>	DwijSubnet-2	subnet-05e828fd6a72af780	Available	vpc-03e5225f852fd41dd Dwij...	Off	10.0.31.0/24	-
<input type="checkbox"/>	DwijSubnet-1	subnet-071198281a2880454	Available	vpc-0423c0dbdb1eece0f Dwij...	Off	10.0.30.0/24	-
<input type="checkbox"/>	-	subnet-05b4933e90c6b5ded	Available	vpc-0f6e8c9c2741249dc	Off	172.31.80.0/20	-

(After creating 2 VPC's, I created an individual subnet for each VPC)

Peering 2 VPC's: It allows instances in one VPC to communicate directly with instances in the other VPC, as if they were on the same network.

🔔 A VPC peering connection **pcx-08ec383d1dd9429a0** / Peering has been requested.

pcx-08ec383d1dd9429a0 / Peering

Actions

🔔 Pending acceptance
You can accept or reject this peering connection request using the 'Actions' menu. You have until Thursday, 26 December 2024 at 14:52:13 GMT+5:30 to accept or reject the request, otherwise it expires.

Details Info

Requester owner ID 155090939967	Accepter owner ID 155090939967	VPC Peering connection ARN arn:aws:ec2:us-east-1:155090939967:vpc-peering-connection/pcx-08ec383d1dd9429a0
Peering connection ID pcx-08ec383d1dd9429a0	Requester VPC vpc-0423c0dbdb1eece0f DwijVPC-1	Accepter VPC vpc-03e5225f852fd41dd DwijVPC-2
Status 🕒 Pending Acceptance by 155090939967	Requester CIDRs 10.0.30.0/24	Accepter CIDRs -
Expiration time Thursday, 26 December 2024 at 14:52:13 GMT+5:30	Requester Region N. Virginia (us-east-1)	Accepter Region N. Virginia (us-east-1)

Establishing Peering: (By accepting peering request).

Your VPC peering connection () has been established.

To send and receive traffic across this VPC peering connection, you must add a route to the peered VPC in one or more of your VPC route tables.

[Info](#)

Modify my route tables now

Peering connections (1)

[Info](#)

Find resources by attribute or tag

Name	Peering connection ID	Status	Requester VPC	Accepter VPC	Requester CIDRs	
Peering	pcx-08ec383d1dd9429a0	Active	vpc-0423c0dbdb1eece0f / Dwij...	vpc-03e5225f852fd41dd / Dwij...	10.0.30.0/24	1

Creating Routes:

Updated routes for rtb-06376a47beb809973 / VPC-2 successfully

Details

rtb-06376a47beb809973 / VPC-2

Actions

Details

[Info](#)

Route table ID

[rtb-06376a47beb809973](#)

VPC

[vpc-03e5225f852fd41dd | DwijVPC-2](#)

Main

Yes

Owner ID

[155090939967](#)

Explicit subnet associations

-

Edge associations

-

Routes

Subnet associations

Edge associations

Route propagation

Tags

Routes (2)

Both

Edit routes

Filter routes

Destination	Target	Status	Propagated
10.0.30.0/24	pcx-08ec383d1dd9429a0	Active	No
10.0.31.0/24	local	Active	No

Checking both Route for Active Connection:

Route tables (1/1)

[Info](#)

Last updated 9 minutes ago

Actions

Create route table

Find resources by attribute or tag

Route table ID: [rtb-0566bc37444c93140](#)

Clear filters

Name	Route table ID	Explicit subnet associ...	Edge associations	Main	VPC	Own...
VPC-1	rtb-0566bc37444c93140	-	-	Yes	vpc-0423c0dbdb1eece0f DwijVPC-1	155090...

rtb-0566bc37444c93140 / VPC-1

Details

Routes

Subnet associations

Edge associations

Route propagation

Tags

Routes (2)

Both

Edit routes

Filter routes

Destination	Target	Status	Propagated
10.0.30.0/24	local	Active	No
10.0.31.0/24	pcx-08ec383d1dd9429a0	Active	No

Checking Peering Properties:

pcx-08ec383d1dd9429a0 / Peering

Actions ▾

Details [Info](#)

Requester owner ID
155090939967

Peering connection ID
pcx-08ec383d1dd9429a0

Status
Active

Expiration time
-

Accepter owner ID
155090939967

Requester VPC
vpc-0423c0dbdb1eece0f / DwijVPC-1

Requester CIDRs
10.0.30.0/24

Requester Region
N. Virginia (us-east-1)

VPC Peering connection ARN
arn:aws:ec2:us-east-1:155090939967:vpc-peering-connection/pcx-08ec383d1dd9429a0

Accepter VPC
vpc-03e5225f852fd41dd / DwijVPC-2

Accepter CIDRs
10.0.31.0/24

Accepter Region
N. Virginia (us-east-1)

DNS | Route tables | Tags

DNS settings

Edit DNS settings

Requester VPC ([vpc-0423c0dbdb1eece0f / DwijVPC-1](#)) [Info](#)

Allow accepter VPC to resolve DNS of hosts in requester VPC to private IP addresses
Disabled

S3 Bucket: It's like a digital container where you can store and retrieve any amount of data, you have to pay only for the size of the data. You can pair it with other services to store their data, snapshots or logs.

Creating a S3 Bucket:

Create bucket [Info](#)

Buckets are containers for data stored in S3.

General configuration

AWS Region
US East (N. Virginia) us-east-1

Bucket type [Info](#)

☒ General purpose
Recommended for most use cases and access patterns. General purpose buckets are the original S3 bucket type. They allow a mix of storage classes that redundantly store objects across multiple Availability Zones.

☐ Directory
Recommended for low-latency use cases. These buckets use only the S3 Express One Zone storage class, which provides faster processing of data within a single Availability Zone.

Bucket name [Info](#)

Dwij's Test Bucket

Bucket name must be unique within the global namespace and follow the bucket naming rules. [See rules for bucket naming](#)

Copy settings from existing bucket - optional

Only the bucket settings in the following configuration are copied.

Choose bucket

Format: s3://bucket/prefix

S3 Bucket List after creation:

Successfully created bucket "dwij-test-bucket"
To upload files and folders, or to configure additional bucket settings, choose [View details](#).

[View details](#) ×

Account snapshot - updated every 24 hours [All AWS Regions](#)
Storage lens provides visibility into storage usage and activity trends. Metrics don't include directory buckets. [Learn more](#)

[View Storage Lens dashboard](#)

General purpose buckets | Directory buckets

General purpose buckets (1) [Info](#) [All AWS Regions](#)

Buckets are containers for data stored in S3.

Find buckets by name

[Refresh](#) [Copy ARN](#) [Empty](#) [Delete](#) [Create bucket](#)

Name	AWS Region	IAM Access Analyzer	Creation date
dwij-test-bucket	US East (N. Virginia) us-east-1	View analyzer for us-east-1	December 19, 2024, 09:50:44 (UTC+05:30)

Uploading file in Bucket:

Upload [Info](#)

Add the files and folders you want to upload to S3. To upload a file larger than 160GB, use the AWS CLI, AWS SDKs or Amazon S3 REST API. [Learn more](#)

Drag and drop files and folders you want to upload here, or choose **Add files** or **Add folder**.

Files and folders (1 total, 1.2 MB)
All files and folders in this table will be uploaded.

<input type="checkbox"/>	Name	Folder	Type	Size
<input type="checkbox"/>	IDT-2 Report PDF.pdf	-	application/pdf	1.2 MB

Destination [Info](#)
Destination
<s3://dwij-test-bucket>
► Destination details
Bucket settings that impact new objects stored in the specified destination.

► Permissions
Grant public access and access to other AWS accounts.

► Properties
Specify storage class, encryption settings, tags, and more.

Cancel Upload

Uploading
Total remaining: 1 file: 35.0 KB (2.78%)
Estimated time remaining: a few seconds
Transfer rate: 185.5 KB/s
Cancel

Bucket after Uploading:

dwij-test-bucket [Info](#)

Objects Metadata - Preview Properties Permissions Metrics Management Access Points

Objects (1) [Info](#)
Copy S3 URI Copy URL Download Open Delete Actions Create folder Upload

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

Show versions

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	IDT-2 Report PDF.pdf	pdf	December 19, 2024, 09:52:46 (UTC+05:30)	1.2 MB	Standard

Deleting File and Bucket:

Successfully deleted bucket "dwij-test-bucket" X

Facts:

- 1) S3 is just like a Google drive.
- 2) Peering and Routing are one of the most important parts of AWS Cloud Architecture.
- 3) You have to empty the Bucket before deleting it.