

AWS Services: Some Confusing Terms

The distinction between different AWS Services — Part 2



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I am trying to collect almost all confusing terms in AWS, which may occur when you are preparing for AWS Certification or when you are working on AWS.

This is a part — 2, and I have published part — 1 also in which I have covered many terms, so I request everyone to read my that post also.

Part — 1

[AWS Services: Some Confusing Terms](#)

The distinction between different AWS Services — Part 1

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[Part - 1](#)



AWS Services: Some Confusing Terms

The distinction between different AWS Services — Part 3

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In this blog post, I am going to show you the difference between the following terms or services:

- ENI & ENA & EFA
- AWS Managed VPN & Direct Connect
- S3 Pre-signed URL & CloudFront signed URL
- CloudFront signed URL & CloudFront signed Cookies
- Route 53 Geo-location Routing Policy & Route 53 Geo-proximity Routing Policy
- Amazon ECS launch type Amazon EC2 & AWS Fargate
- Amazon Redshift Spectrum & Amazon Athena

ENI & ENA & EFA

ENI	ENA	EFA
An ENI (Elastic Network Interface) is a logical networking component in a VPC that represents a virtual network card.	An ENA (Elastic Network Adapter) uses single root I/O virtualization (SR-IOV) to provide high-performance networking capabilities on supported instance types.	Elastic Fabric Adapter (EFA) is a network interface for Amazon EC2 instances that enables customers to run applications requiring high levels of inter-node communications at scale on AWS.
You can attach multiple ENI to single instance.	You can have single setting of ENA to single instance.	You can attach multiple EFA to single instance.
Network traffic can traverse between subnets.	Network traffic can traverse between subnets.	OS bypass traffic is limited to single subnet, it cannot traverse across subnets.
It's default on instances	It's optional on	It's optional on

It's default on instances.	supported instances.	supported instances.
It uses in normal use, like Web servers, DB servers, etc.	It uses where require higher bandwidth and lower inter-instance latency.	It uses in High-Performance Computing, MPI and Machine Learning, and Tightly coupled applications.

ENI & ENA & EFA

More Details:

ENIs: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-eni.html>

ENAs: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/enhanced-networking.html>

EFA: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/efa.html>

AWS Managed VPN & Direct Connect

AWS Managed VPN	Direct Connect
AWS-managed VPN is a hardware IPsec VPN that enables you to create an encrypted connection over the public Internet between your Amazon VPC and your private IT infrastructure.	AWS Direct Connect bypasses the public Internet and establishes a secure, dedicated connection from your infrastructure into AWS.
The network performance is up to a 4GB per VPC.	The network performance is <=1 GB, 10GB ports up to 40GB with Link Aggregation Group (LAG)
In connectivity, you can connect 1 VPN Connection to VPC.	In connectivity, you can connect two ports connection to multiple VPCs.

VPN is a great connectivity option for businesses that are just getting started with AWS.

AWS Direct Connect is a great option for businesses that are seeking secure, ultra-low latency connectivity into AWS.

AWS Managed VPN & Direct Connect

More Details:

AWS Managed VPN: <https://docs.aws.amazon.com/whitepapers/latest/aws-vpc-connectivity-options/aws-managed-vpn-1.html>

Direct Connect:

<https://docs.aws.amazon.com/directconnect/latest/UserGuide>Welcome.html>

S3 Pre-signed URL & CloudFront signed URL

CloudFront signed URL	S3 Pre-signed URL
CloudFront signed URLs provide a mechanism to control access to the content served through a distribution.	The pre-signed URL is special URL that you can provide to your users to allow or grant temporary access of specific object of s3 Bucket.
It allows access to a path, no matter the origin.	The origin will be S3 bucket only.
It can leverage caching feature.	It cannot leverage caching feature.
In CloudFront Signed URL, you can set expiration time, DateGreaterThan field, IP which is an IPv4 CIDR block that can further limit the access, and path.	In S3 Pre-Signed URL, you can only set the bucket and the object keys.
In this, the signing uses an account-wide key pair, which only the root user can manage.	In this, the signing uses the access keys of an IAM user.
When you need to protect custom origins, and you have no way of circumventing it, then use CloudFront signed URLs.	When your content is stored in S3 then S3 signed URLs is the best options and they provide the greatest flexibility.

S3 Pre-signed URL & CloudFront signed URL

More Details:

CloudFront Signed URL:

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/PrivateContent.html>

S3 Pre-Signed URL:

<https://docs.aws.amazon.com/AmazonS3/latest/userguide/using-presigned-url.html>

CloudFront signed URL & CloudFront signed Cookies

CloudFront signed URLs and signed cookies both helps you to share your content privately and provide control over who can access your content.



CloudFront signed URL & CloudFront signed Cookies

More Details:

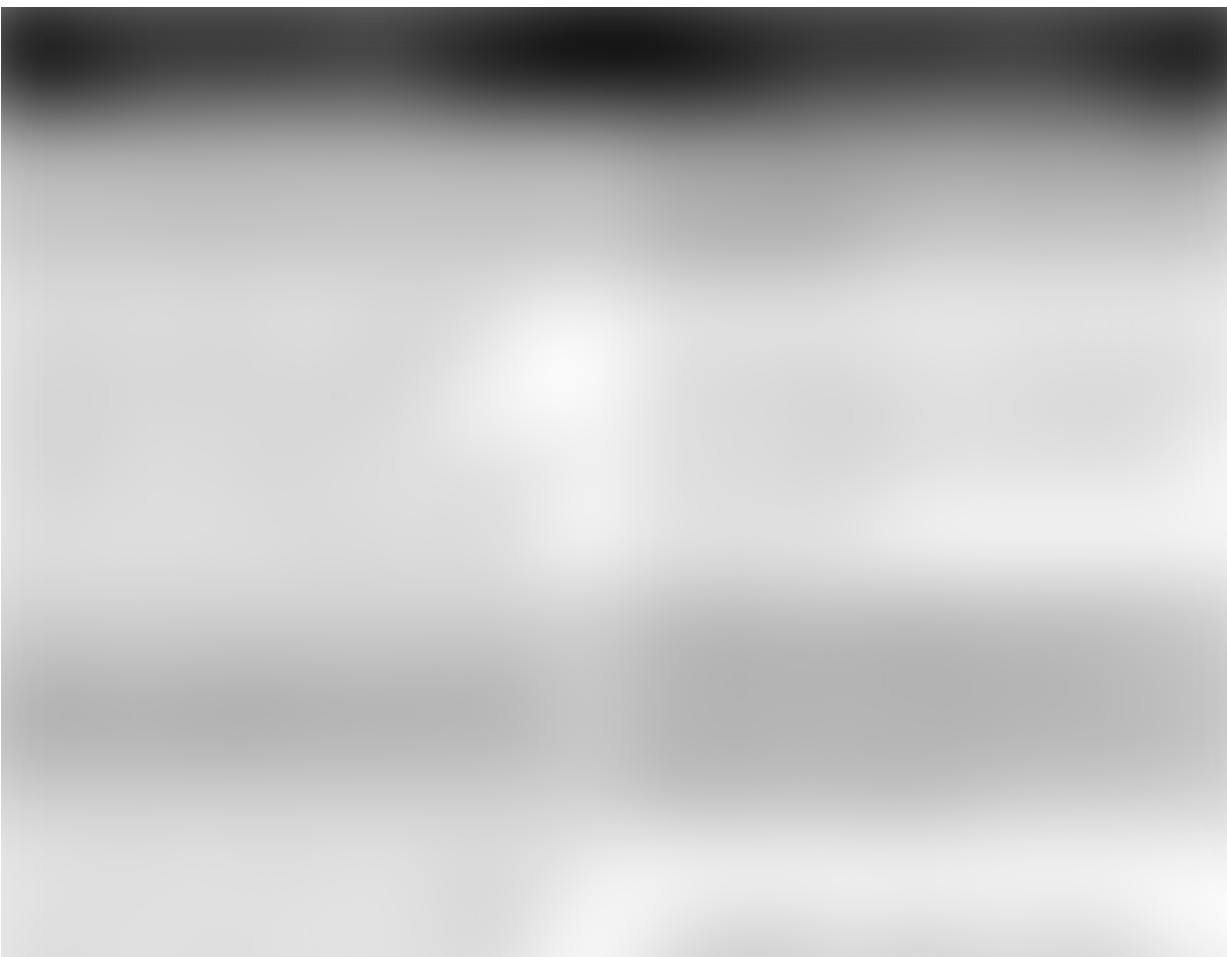
Signed URLs:

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/private-content-signed-urls.html>

Signed Cookies:

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/private-content-signed-cookies.html>

Route 53 Geo-location Routing Policy & Route 53 Geo-proximity Routing Policy



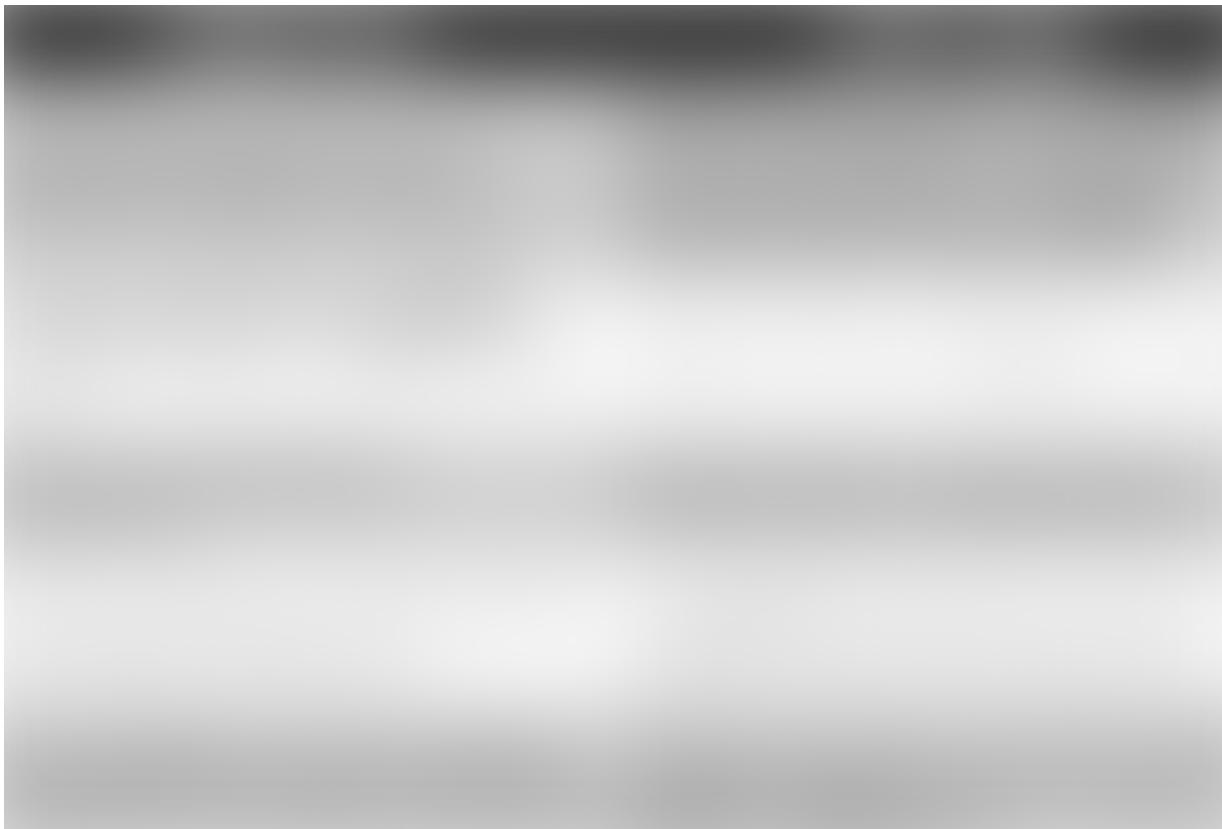
Route 53 Geo-location Routing Policy & Route 53 Geo-proximity Routing Policy

More Details:

Route 53 Routing Policies:

<https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/routing-policy.html>

Amazon ECS Launch Type Amazon EC2 & AWS Fargate



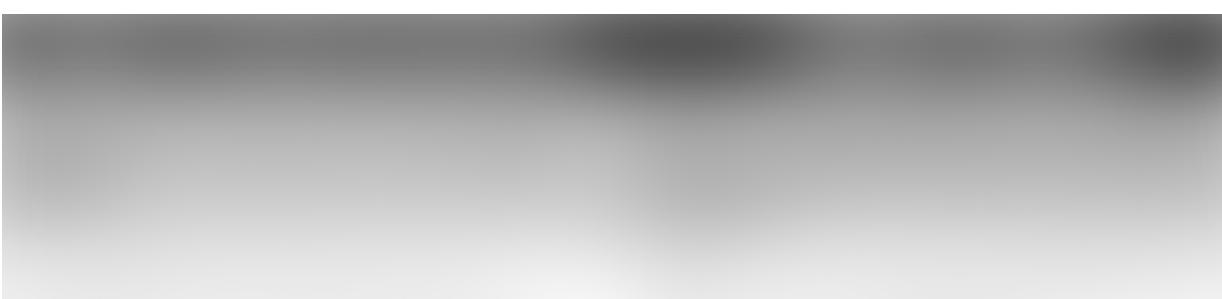
Amazon ECS Launch Type Amazon EC2 & AWS Fargate

More Details:

Amazon ECS:

<https://docs.aws.amazon.com/AmazonECS/latest/developerguide/Welcome.html>

Amazon Redshift Spectrum & Amazon Athena





Amazon Redshift Spectrum & Amazon Athena

More Details:

Amazon Redshift Spectrum: <https://docs.aws.amazon.com/redshift/latest/dg/c-getting-started-using-spectrum.html>

Amazon Athena: <https://docs.aws.amazon.com/athena/latest/ug/what-is.html>

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