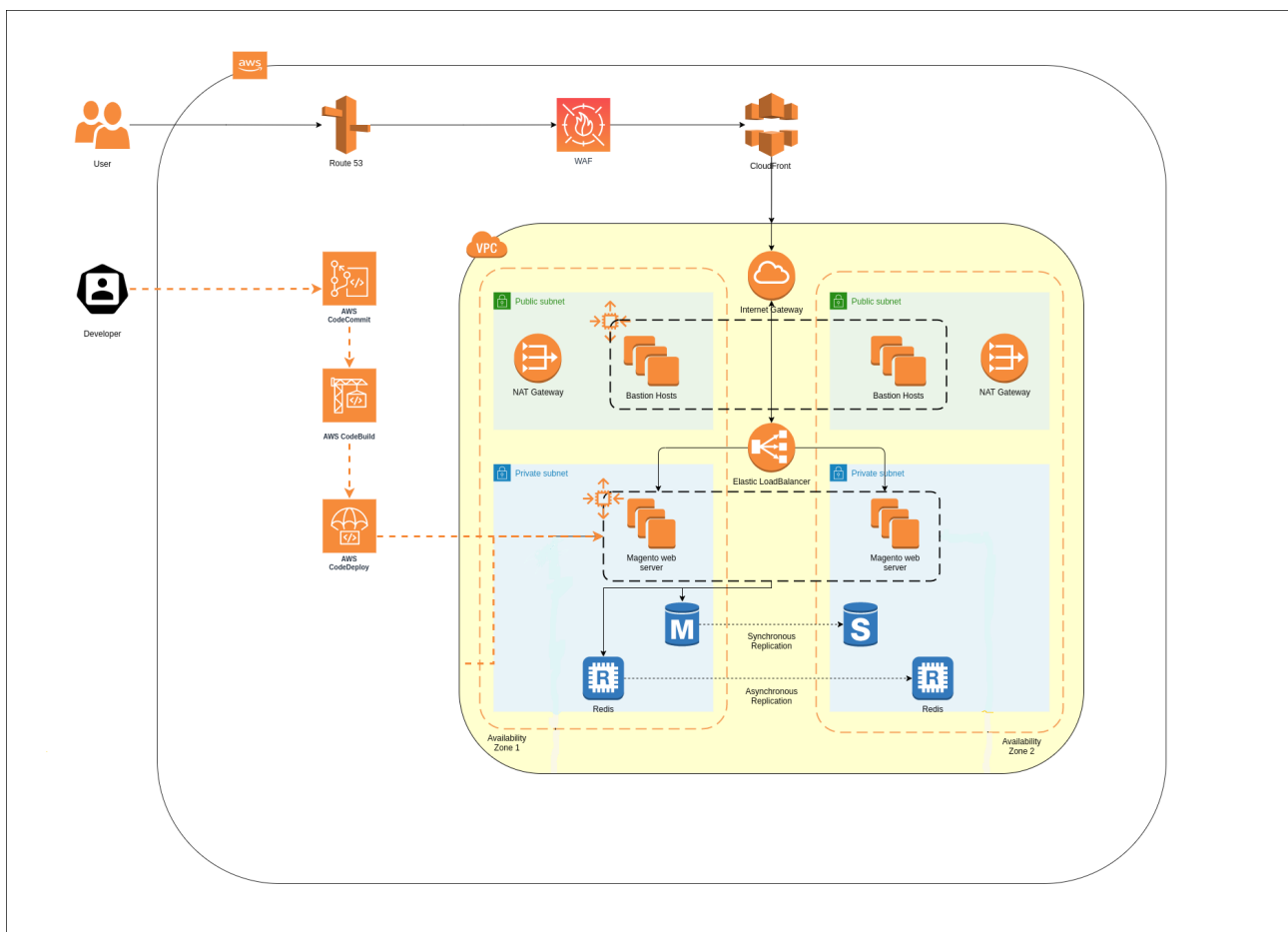


# Eros-Magento

The client wants to build a fresh e-commerce website. Where they can sell their products. And Customer also wants a warehouse management system where they can easily maintain their courier service.

My role is to help customer to create an infrastructure architecture, build, test and secured website on AWS.

## ARCHITECHTURE DIAGRAM FOR EROS ENVIRONMENT :



## VPC

Created a VPC for Eros-Mgento with 10.0.0.0/16 CIDR

Your VPCs (1/3) [Info](#)

[Refresh](#) [Actions](#) [Create VPC](#)

<input type="checkbox"/>	Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR	DHCP options set	Main route table
<input type="checkbox"/>	ITS-Bahrain-Eros-Dev-Stage	vpc-04de7fed6d7ff672	Available	10.0.0.0/16	-	dopt-be906fd7	rtb-0518ff0dd9b42e180 ...
<input type="checkbox"/>	Default	vpc-1a936c73	Available	172.31.0.0/16	-	dopt-be906fd7	rtb-88946be1
<input checked="" type="checkbox"/>	ITS-Bahrain-Eros-Prod <a href="#">🔗</a>	vpc-0e4c6ff3ebe095b7d	Available	10.0.0.0/16	-	dopt-be906fd7	rtb-042fc6071eb7d2db3 ...

Created four Subnet for Eros-Mgento VPC

Subnets (4) [Info](#)

[Refresh](#) [Actions](#) [Create subnet](#)

VPC: vpc-0e4c6ff3ebe095b7d [X](#) [Clear filters](#)

<input type="checkbox"/>	Name	Subnet ID	State	VPC	IPv4 CIDR	IPv6 CIDR	Available IPv4 addresses
<input type="checkbox"/>	ITS-Bahrain-Prod-P...	subnet-0edb0ba7ba741ae09	Available	vpc-0e4c6ff3ebe095b7d   ITS-...	10.0.1.0/24	-	248
<input type="checkbox"/>	ITS-Bahrain-Prod-P...	subnet-012b90885072a7444	Available	vpc-0e4c6ff3ebe095b7d   ITS-...	10.0.3.0/24	-	250
<input type="checkbox"/>	ITS-Bahrain-Prod-P...	subnet-096382b517efa0ddc	Available	vpc-0e4c6ff3ebe095b7d   ITS-...	10.0.2.0/24	-	247
<input type="checkbox"/>	ITS-Bahrain-Prod-P...	subnet-075208f5160018023	Available	vpc-0e4c6ff3ebe095b7d   ITS-...	10.0.4.0/24	-	250

1. ITS-Bahrain-Prod-Public-1a Subnet with 10.0.1.0/24
2. ITS-Bahrain-Prod-Private-1b Subnet with 10.0.3.0/24
3. ITS-Bahrain-Prod-Private-1a Subnet with 10.0.0.0/24
4. ITS-Bahrain-Prod-Private-1a Subnet with 10.0.2.0/24

Then In Default Route Table Main, there is an internet gateway attached and associated two public subnets.

Route tables (5) <a href="#">Info</a>								
<input type="text" value="Filter route tables"/> <span>&lt; 1 &gt;</span>								
<input type="checkbox"/>	Name ▾	Route table ID ▾	Explicit subnet associat...	Edge associations	Main ▾	VPC ▾	Owner ID ▾	
<input type="checkbox"/>	ITS-Bahrain-Prod-Public-RT	rtb-042fc6071eb7d2db3	subnet-0edb0ba7ba741...	-	Yes	vpc-0e4c6ff3ebe095b7d   ITS-...	677612767352	
<input type="checkbox"/>	ITS-Bahrain-Dev-Private-RT	rtb-0518ff0dd9b42e180	2 subnets	-	Yes	vpc-04de7fced6d7ff672   ITS-...	677612767352	
<input type="checkbox"/>	-	rtb-88946be1	-	-	Yes	vpc-1a936c73   Default	677612767352	
<input type="checkbox"/>	ITS-Bahrain-Prod-Private-RT	rtb-091c4e6fd1cecb4f2	2 subnets	-	No	vpc-0e4c6ff3ebe095b7d   ITS-...	677612767352	
<input type="checkbox"/>	ITS-Bahrain-Dev-Public-RT	rtb-09fbb27d82010e306	subnet-0a06ba179055f...	-	No	vpc-04de7fced6d7ff672   ITS-...	677612767352	

After that, created a custom Route Table with the attachment of a nat gateway and associate a private subnet.

NAT gateways (2) <a href="#">Info</a>								
<input type="text" value="Filter NAT gateways"/> <span>&lt; 1 &gt;</span>								
<input type="radio"/>	Name ▾	NAT gateway ID ▾	Connectivit...	State ▾	State message ▾	Elastic IP address ▾	Private IP address ▾	Network interface ID ▾
<input type="radio"/>	ITS-Bahrain-Eros-Pr...	nat-06d47ae2fa7ba00dc	Public	Available	-	15.184.111.25	10.0.1.104	eni-04af8d75a3bb5035d <a href="#">🔗</a>
<input type="radio"/>	ITS-Bahrain-Eros-D...	nat-0893f1cfbca9d7300	Public	Available	-	15.184.177.21	10.0.1.140	eni-0c8179f8b5d5bb0ee <a href="#">🔗</a>

Created a Eros-Mgento internet gateway as a name Eros-Mgento and attached to the ITS-BAHRAIN-EROS-PROD VPC.

Internet gateways (1/3) <a href="#">Info</a>					
<input type="text" value="Filter internet gateways"/> <span>&lt; 1 &gt;</span>					
<input checked="" type="checkbox"/>	Name ▾	Internet gateway ID ▾	State ▾	VPC ID ▾	Owner ▾
<input checked="" type="checkbox"/>	ITS-Bahrain-Eros-Prod-IGW	igw-0287e4e6819a43261	Attached	vpc-0e4c6ff3ebe095b7d   ITS-Bahrain...	677612767352
<input type="checkbox"/>	ITS-Bahrain-Eros-Dev-IGW	igw-03578ed9f0bb764fd	Attached	vpc-04de7fced6d7ff672   ITS-Bahrain-...	677612767352
<input type="checkbox"/>	-	igw-868d72ef	Attached	vpc-1a936c73   Default	677612767352

## EC2

In EC2 instance, There are six instances running write now. the customer wants three instances in a private subnets, Which are Linux(ubuntu20.04) instance with the instance type of m5.xlarge, t3.large, m5.2xlarge. Another two instances which are in public subnet are for Dev and Stage are also Linux(ubuntu20.04) with the instance type of t3.xlarge.

And the remaining one instances is used as a bastion host of Linux(ubuntu20.04). Windows bastion host is t3.medium instance type.

Instances (6) <a href="#">Info</a>										
<input type="text" value="Search"/>										
<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS		
<input type="checkbox"/>	EROS-bastion-Prod-EC2	i-067f160827811fedf	Running	t3.medium	2/2 checks passed	No alarms	me-south-1a	-		
<input type="checkbox"/>	EROS-ES-Prod-EC2	i-0911a3b49526a035e	Running	m5.xlarge	2/2 checks passed	No alarms	me-south-1a	-		
<input type="checkbox"/>	EROS-Redis-Prod-EC2	i-0e7446113b83d1543	Running	t3.large	2/2 checks passed	No alarms	me-south-1a	-		
<input type="checkbox"/>	EROS-Magento-Dev-EC2	i-0be739ca3af9aeac	Running	t3.xlarge	2/2 checks passed	No alarms	me-south-1a	ec2-15-184-210-244.m		
<input type="checkbox"/>	EROS-Magento-Prod-EC2	i-09aa1f760daf90c77	Running	m5.2xlarge	2/2 checks passed	No alarms	me-south-1a	-		
<input type="checkbox"/>	EROS-Magento-Stage-EC2	i-08abbf0c8c86760c0	Running	t3.xlarge	2/2 checks passed	No alarms	me-south-1a	ec2-15-184-3-110.me-		

## Elastic IP

Created five Elastic IP one for prod bastion server, two Elastic IP for two nat gateways. and another two are for Dev and Stage servers.

Elastic IP addresses (5)				
<input type="text" value="Filter Elastic IP addresses"/>				
<input type="checkbox"/>	Name	Allocated IPv4 add...	Type	Allocation ID
<input type="checkbox"/>	ITS-Bahrain-Eros-Prod-EI-NAT	15.184.111.25	Public IP	elpallocc-08fd13bac82ac
<input type="checkbox"/>	Eros-Bastion-Prod-EIP	15.184.164.205	Public IP	elpallocc-0ef4b500f8138
<input type="checkbox"/>	ITS-Bahrain-Eros-Dev-EI-NAT	15.184.177.21	Public IP	elpallocc-09eb6b3b006f
<input type="checkbox"/>	Eros-Magento-Dev-EIP	15.184.210.244	Public IP	elpallocc-0b4ffe52246e1
<input type="checkbox"/>	Eros-Magento-Stage-EIP	15.184.3.110	Public IP	elpallocc-06dc428ff2805

## ALB

As the Linux server is in the private subnet and website is in the Linux server. Application load balancer is created so the website can access for the outer world.

<input type="text"/> Filter by tags and attributes or search by keyword				
<input type="checkbox"/>	Name	DNS name	State	VPC ID
<input type="checkbox"/>	Eros-Bahrain-Prod-ELB	Eros-Bahrain-Prod-ELB-1804256526....	Active	vpc-0e4c6ff3ebe095b7d

Load balancer: **Eros-Bahrain-Prod-ELB**

There are two target groups for the application load balancer. One for dev-stage environment and another one is for Production.

Target groups (2) <a href="#">Info</a>				
<input type="text"/> Search or filter target groups				
<input type="checkbox"/>	Name	ARN	Port	Protocol
<input type="checkbox"/>	DevStageGroup	arn:aws:elasticloadbalancin...	443	HTTPS
<input type="checkbox"/>	ITS-Bahrain-Eros-TG	arn:aws:elasticloadbalancin...	80	HTTP

## RDS

There are two RDS servers, one for Prod and another for Dev and Satging. The MySQL RDS with the size of db.t3.medium. The prod RDS is attached to the of Its-bahrain-eros-prod VPC. The storage size of this RDS is 100 GB and the storage type is a general purpose (SSD). And The prod RDS is attached to the of Its-bahrain-eros-dev-stage VPC. The storage size of this RDS is 100 GB and the storage type is a general purpose (SSD).

There is custom parameter group name as trigger with the permission of log\_bin\_trust\_function\_creators. This permission will allow the user to import the tables in database.

eros-prod-rds-mysql

Summary			
DB Identifier	CPU	Status	Class
eros-prod-rds-mysql	<div><div></div></div> 49.49%	<div><div></div> Available</div>	db.t3.medium
Role	Current activity	Engine	Region & AZ
Instance	<div><div></div> 0.73 sessions</div>	MySQL Community	me-south-1a

- Connectivity & security
- Monitoring
- Logs & events
- Configuration
- Maintenance & backups
- Tags

Connectivity & security		
Endpoint & port	Networking	Security
Endpoint	Availability Zone	VPC security groups
eros-prod-rds-mysql.cuywhj9qtja2.me-south-1.rds.amazonaws.com	me-south-1a	Eros-RDS-VPC-Security-Group (sg-0186c1c78a4178345)
Port	VPC	<div><div></div> Active</div>
3306	ITS-Bahrain-Eros-Prod (vpc-0e4c6ff3ebe095b7d)	Publicly accessible
	Subnet group	No
	eros-bahrain-db-subnet-grp	Certificate authority
	Subnets	rds-ca-2019-me-south-1
	subnet-096382b517efa0ddc	Certificate authority date
	subnet-012b90885072a7444	June 01, 2025, 05:30 (UTC±5:30)

eros-devstage-rds-mysql

Summary			
DB identifier	CPU	Status	Class
eros-devstage-rds-mysql	<div><div></div></div> 3.57%	<div><div></div> Available</div>	db.t3.medium
Role	Current activity	Engine	Region & AZ
Instance	<div><div></div> 0.00 sessions</div>	MySQL Community	me-south-1b

- Connectivity & security
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- Tags

Connectivity & security		
Endpoint & port	Networking	Security
Endpoint	Availability Zone	VPC security groups
eros-devstage-rds-mysql.cuywhj9qtja2.me-south-1.rds.amazonaws.com	me-south-1b	EROS-RDS-DevStage-VPC-SG (sg-0e976516c7572df76)
Port	VPC	<div><div></div> Active</div>
3306	ITS-Bahrain-Eros-Dev-Stage (vpc-04de7fced6d7ff672)	Publicly accessible
	Subnet group	No
	eros-devstage-db-subnet-grp	Certificate authority
	Subnets	rds-ca-2019-me-south-1
	subnet-02758aced72bc0e92	Certificate authority date
	subnet-0211c5198edf62ef3	June 01, 2025, 05:30 (UTC±5:30)

## Nginx :

As I installed nginx in the linux server. And the website is built in Magento. I installed and configure the PHP7.4.3 And nginx conf file.

In apache2/sites-enabled i configure all the subdomain such as eros.ae, www.eros.ae

```
server {
    listen 80;
    # listen [::]:80 default_server;

    root /var/www/erosdigital/pub;

    # Add index.php to the list if you are using PHP
    index index.php index.html index.htm index.nginx-debian.html;

    server_name eros.ae www.eros.ae;

    location / {
        # try_files $uri $uri/ =404;
        try_files $uri $uri/ /index.php$is_args$args;
    }

    access_log /var/log/nginx/eros.ae_access.log;
    error_log /var/log/nginx/eros.ae_error.log;

    # pass PHP scripts to FastCGI server
    #
    location ~ \.php$ {
        include snippets/fastcgi-php.conf;
        #
        # With php-fpm (or other unix sockets):
        fastcgi_pass unix:/var/run/php/php7.4-fpm.sock;
        # With php-cgi (or other tcp sockets):
        # fastcgi_pass 127.0.0.1:9000;
        fastcgi_buffers 16 16k;
        fastcgi_buffers 16 128k;
        # fastcgi_buffer_size 32k;
        fastcgi_buffer_size 256k;

        fastcgi_read_timeout 1h;
        fastcgi_send_timeout 600;
        fastcgi_connect_timeout 600;

        client_max_body_size 2G;
    }

    # deny access to .htaccess files, if Apache's document root
    # concurs with nginx's one
    #
    location ~ /\.ht {
        deny all;
    }

    #location /user/index.php {
```

## Route 53 :

As the client domain was in buyied from another domain provider, I transfer the domain into the route 53 by changing the name server. After that, I created AWS ACM certificate for eros.ae and \*.eros.ae

For validating that certificate I use DNS method to authenticate.

Records (10) <a href="#">Info</a>						
Automatic mode is the current search behavior optimized for best filter results. <a href="#">To change modes go to settings.</a>						
<input type="text" value="Filter records by property or value"/>			Type ▼	Routing policy ▼		
<input type="checkbox"/>	Record name ▼	Type ▼	Routin... ▼	Differ... ▼	Value/Route traffic to	
<input type="checkbox"/>	eros.ae	A	Simple	-	dualstack.eros-bahrain-prod-elb-1804256526.m	
<input type="checkbox"/>	eros.ae	MX	Simple	-	10 eros-ae.mail.protection.outlook.com	
<input type="checkbox"/>	eros.ae	NS	Simple	-	ns-1844.awsdns-38.co.uk. ns-588.awsdns-09.net. ns-1339.awsdns-39.org. ns-470.awsdns-58.com.	
<input type="checkbox"/>	eros.ae	SOA	Simple	-	ns-1844.awsdns-38.co.uk. awsdns-hostmaster.ai	
<input type="checkbox"/>	eros.ae	TXT	Simple	-	"d1gysAU26zDU2XR9w6hJb-GGo2bXk_SAETykq "MS=ms47982213" "v=spf1 include:spf.protection.outlook.com -all" "Oed1fe018a587f62194bc84ede8847a7449024	
<input type="checkbox"/>	autodiscover.eros.ae	CNAME	Simple	-	autodiscover.outlook.com	
<input type="checkbox"/>	dev.eros.ae	A	Simple	-	15.184.210.244	
<input type="checkbox"/>	staging.eros.ae	A	Simple	-	15.184.3.110	
<input type="checkbox"/>	uat.eros.ae	CNAME	Simple	-	Eros-Bahrain-Prod-ELB-1804256526.me-south-	
<input type="checkbox"/>	www.eros.ae	CNAME	Simple	-	Eros-Bahrain-Prod-ELB-1804256526.me-south-	