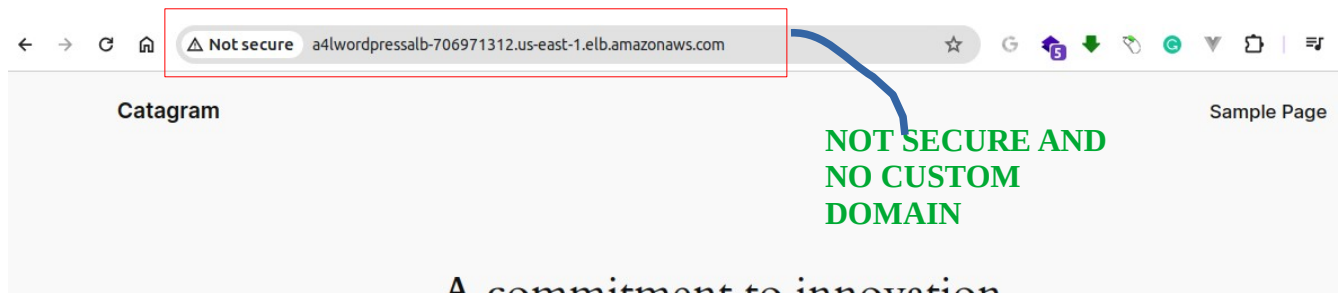


WEB APP – SINGLE SERVER TO ELASTIC EVOLUTION (Adding Custom and Loadbalancer SSL Termination)

Last project final result of the last project we build. If you not yet done the project , here the link: https://www.linkedin.com/posts/rogmer-bulaclac_project-file-activity-7146604589822148608-EigB?utm_source=share&utm_medium=member_desktop



The project is indeed working, but no custom domain and no secure yet

Objectives:

- **Generate SSL Certificate:**
- **Install SSL Certificate on Load Balancer**
- **Configure Security Group for Load Balancer**
- **Update DNS Settings at GoDaddy**
- **Verify SSL Configuration**

Instructions:

1. Generate SSL Certificate:

- Navigate to AWS Certificate Manager (ACM).
- Select "Request a certificate" and choose "Request a public certificate." Ensure you have a valid domain name, such as (**robudexdevops.com**).
- Under "Domain names," enter your fully qualified domain name (e.g., ***.robudexdevops.com**).
- Add tags (Key: Name, Value: MyAppCert) and click "Request."
- You now have a Certificate ID, but the status is "**Pending validation.**"

- Click on your Certificate ID and copy the CNAME name.

Domains (1)

Create records in Route 53

Export to CSV

< 1 >

Domain	Status	Renewal status	Type	CNAME name	CNAME value
*.robudexdevops.com	Pending validation	-	CNAME	 _529534dcedf77a92f5d2fb66ed7ca9ba.robudexdevops.com.	 _f71f32f04f90546661002f91a803ec6c.tcttzymbbs.acm-validations.aws.

- Open your GoDaddy account and navigate to DNS Management.
- Under DNS Records, click "Add New Record."
- Select Type: CNAME.
- For Name, paste your CNAME here but remove the trailing domain name. For example, if your CNAME is **_sldfoajlajr85.robudexdevops.com**, enter only **_sldfoajlajr85**.
- For Value, copy the CNAME value but remove the trailing dot (.).

New Records

[CNAME records](#) are a type of subdomain, or alias, that points to another domain name.

Type * Name * Value * TTL

CNAME Choose an option A AAAA CNAME MX TXT SRV CAA NS HTTPS

blog or shop coolexample.com 1/2 Hour

Save Cancel

Filters Actions

Type ? Name ? Data ? TTL ? Delete Edit

CERTIFICATE CNAME name and value HERE

CNAME records are a type of subdomain, or alias, that points to another domain name

Type *
CNAME

Name *
_529534dcedf77a92f5d2fb66ed7ca

Value *
6c.tctzzymbbs.acm-validations.aws

TTL
1/2 Hour

Add More Records Save Cancel

- The request for a certificate may take some time. If the status is now available, we can proceed to the next steps. Otherwise, we'll need to wait.




Domains (1) Create records in Route 53 Export to CSV

Wait Until Certificate is verified before proceeding...




Domain	Status	Renewal status	Type	CNAME name	CNAME value
*.robudexdevops.com	Success	-	CNAME	_529534dcedf77a92f5d2fb66ed7ca9ba.robudexdevops.com.	_f71f32f04f90546661002f91a803ec6c.tctzzymbbs.acm-validations.aws.



2. Install SSL Certificate on Load Balancer

- Select the Loadbalancer



Load balancers (1)  **Actions**  **Create load balancer** 

Elastic Load Balancing scales your load balancer capacity automatically in response to changes in incoming traffic.




 **1**  

<input type="checkbox"/>	Name	DNS name	State	VPC ID
<input type="checkbox"/>	A4LWORDPRESSALB	 A4LWORDPRESSALB-7069...	 Active	vpc-0eeaf7394e3f227a6




- Goto Listeners and rules and Click Add listener button



 **Listeners and rules** **Network mapping** **Security** **Monitoring** **Integrations** **Attribut** 

Listeners and rules (1) [Info](#)

 **Manage rules**  **Manage listener**  **Add listener**

A listener checks for connection requests on its configured protocol and port. Traffic received by the listener is routed according to the default action and any additional rules.

 **1**  

<input type="checkbox"/>	Protocol:Port	Default action	Rules	ARN
<input type="checkbox"/>	HTTP:80	Forward to target group <ul style="list-style-type: none">WordpressTargetGroup : 1 (100%)Group-level stickiness: Off	1 rule	 ARN

- Select **HTTPS** Protocol, for **Routing actions**, Select Forward to targroups choose the **WordpressTargetGroup**

► Load balancer details: A4LWORDPRESSALB

Listener details: HTTPS:443

A listener checks for connection requests using the protocol and port that you configure. The default action and any additional rules that you create determine how the Application Load Balancer routes requests to its registered targets.

Listener configuration

The listener will be identified by the protocol and port.

Protocol

Used for connections from clients to the load balancer.

HTTPS ▼

Port

The port on which the load balancer is listening for connections.

443 ▲▼

1-65535

Include authentication using either OpenID Connect (OIDC) or Amazon Cognito.

Routing actions

☒ Forward to target groups

☐ Redirect to URL

☐ Return fixed response

Forward to target group [Info](#)

Choose a target group and specify routing weight or [Create target group](#).

Target group

WordpressTargetGroup

Target type: Instance, IPv4

HTTP ▼



Weight

Percent

1

100%

0-999

Add target group

You can add up to 4 more target groups.

- Goto Secure listener settings from Certificate (from ACM) Select your certificate. Then Click Add button

Secure listener settings [Info](#)

Security policy [Info](#)

Your load balancer uses a Secure Socket Layer (SSL) negotiation configuration called a security policy to manage SSL connections with clients. [Compare security policies](#)

Security category

All security policies ▼

Policy name

ELBSecurityPolicy-TLS13-1-2-2021-06 (recommended) ▼

Default SSL/TLS server certificate

The certificate used if a client connects without SNI protocol, or if there are no matching certificates. You can source this certificate from AWS Certificate Manager (ACM), Amazon Identity and Access Management (IAM), or import a certificate. This certificate will automatically be added to your listener certificate list.

Certificate source

☒ From ACM

☐ From IAM

☐ Import certificate

Certificate (from ACM)

The selected certificate will be applied as the default SSL/TLS server certificate for this load balancer's secure listeners.

*.robudexdevops.com
281e0766-5de3-4d4d-90bf-33b3...



Your Certificate here...

► Listener tags - optional

Tags can help you manage, identify, organize, search for and filter resources.

► Server-side tasks and status

After completing and submitting the above steps, all server-side tasks and their statuses become available for monitoring.

Cancel

Add

- On the Listeners and rules (HTTPS:443) added but not yet reachable


Listeners and rules (2) Info

Manage rules Manage listener Add listener

A listener checks for connection requests on its configured protocol and port. Traffic received by the listener is routed according to the default action and any additional rules.

Filter listeners

NOT YET REACHABLE

Protocol:Port	Default action	Rules
<input type="checkbox"/> HTTPS:443  Not reachable	Forward to target group <ul style="list-style-type: none"> WordpressTargetGroup: 1 (100%) Group-level stickiness: Off 	1 rule
<input type="checkbox"/> HTTP:80	Forward to target group <ul style="list-style-type: none"> WordpressTargetGroup: 1 (100%) Group-level stickiness: Off 	1 rule

3. Configure Security Group for Load Balancer

- Select Load Balancer Security Group and add 443 on the inbound rules

Actions Export security groups to CSV Create security group

Find resources by attribute or tag

Name	Security group ID	Security group name	VPC
-	sg-02b85935e398bd32e	A4LVPC-SGLoadBalancer-W0TDFW1N...	vpc
-	sg-07ed7f8f6da8f7bd2	default	vpc
-	sg-0e7434be34ae371ae	default	vpc
-	sg-04b9c54cd792738f2	A4LVPC-SGEFS-E9OCIKGONR7K	vpc
-	sg-0afc412c475946c55	default	vpc
-	sg-0e57ec766b5e64939	A4LVPC-SGDatabase-HPS0ZRPJB29C	vpc

Inbound rules | Outbound rules | Tags

Inbound rules (1) ↻ Manage tags Edit inbound rules

< 1 > ⚙

<input type="checkbox"/>	Name	Security group rule...	IP version	Type
<input type="checkbox"/>	-	sgr-0e52e3a79c85db1...	IPv4	HTTP

Add rule

HTTPS TCP 443 A... 0.0.0.0/0 0.0.0.0/0 X Delete

ADD THIS RULE

Rules with source of 0.0.0.0/0 or ::/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

Cancel Preview changes Save rules

- Goto Load Balancer Listeners and rules again and notice is now reachable

Listeners and rules (2) Info

↻ Manage rules Manage listener Add listener

A listener checks for connection requests on its configured protocol and port. Traffic received by the listener is routed according to the default action and any additional rules.

< 1 > ⚙

<input type="checkbox"/>	Protocol:Port	Default action	Rules	ARN
<input type="checkbox"/>	HTTPS:443	Forward to target group <ul style="list-style-type: none">WordpressTargetGroup: 1 (100%)Group-level stickiness: Off	1 rule	📄 ARN
<input type="checkbox"/>	HTTP:80	Forward to target group <ul style="list-style-type: none">WordpressTargetGroup: 1 (100%)Group-level stickiness: Off	1 rule	📄 ARN

IT REACHABLE NOW...

4. Update DNS Settings at GoDaddy

- Create CNAME records with
Name: wordpress
Value: LoadBalancer Domain name

Load balancer ARN
arn:aws:elasticloadbalancing:us-east-1:427875724091:loadbalancer/app/A4LWORDPRESSALB/c919383df3ed1a2f

083c530ba7cac3831
us-east-1b (us-east-1-az4)

✔ DNS name copied

A4LWORDPRESSALB-706971312.us-east-1.elb.amazonaws.com (A Record)

New Records

[CNAME records](#) are a type of subdomain, or alias, that points to another domain name.

Type *	Name *	Value *	TTL
CNAME	wordpress	71312.us-east-1.elb.amazonaws.com	1/2 Hour

[Add More Records](#) [Save](#) [Cancel](#)

**YOUR
LOADBALANCER
DNS HERE**

5. Verify SSL Configuration

- goto web browser and (<https://wordpress.YOURDOMAIN>) eg <https://wordpress.robudexdevops.com>

wordpress.robudexdevops.com

Catagram

**WITH CUSTOM
DOMAIN AND
SECURE**

A commitment to innovation and sustainability

Études is a pioneering firm that seamlessly merges creativity and functionality to redefine architectural excellence.