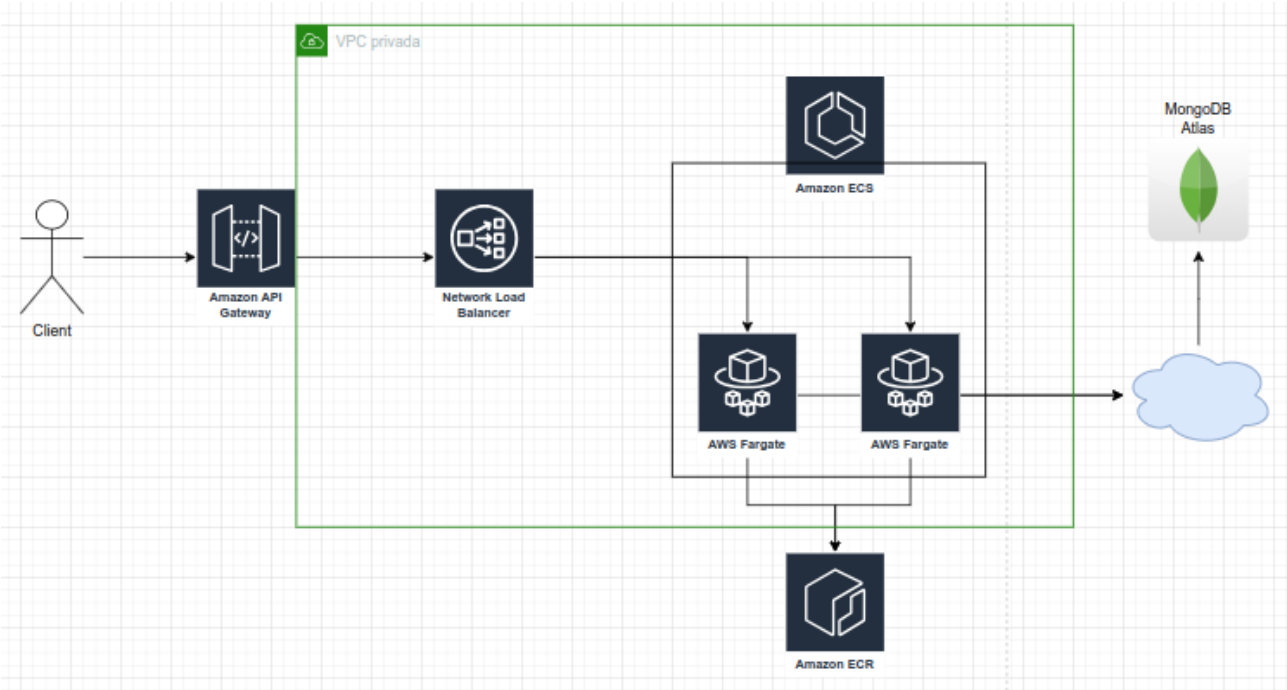
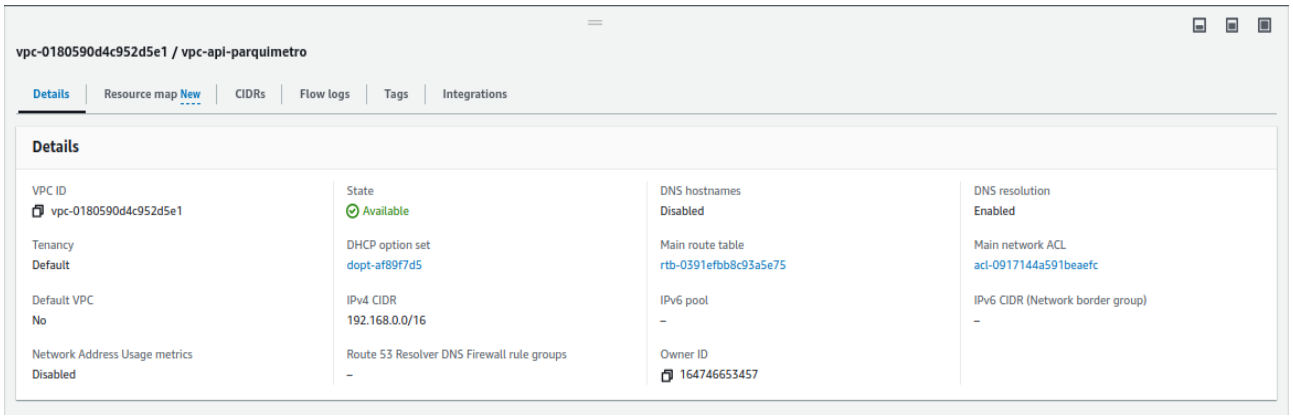
Deploy na AWS

Arquitetura:

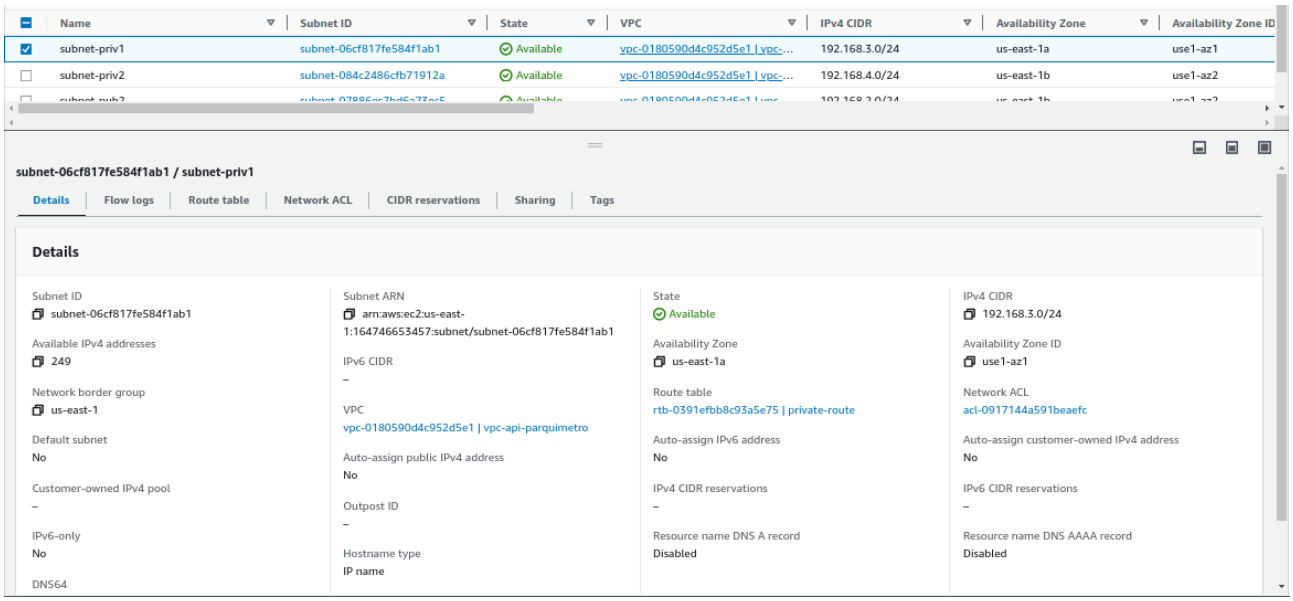


Parte 1 – VPC:

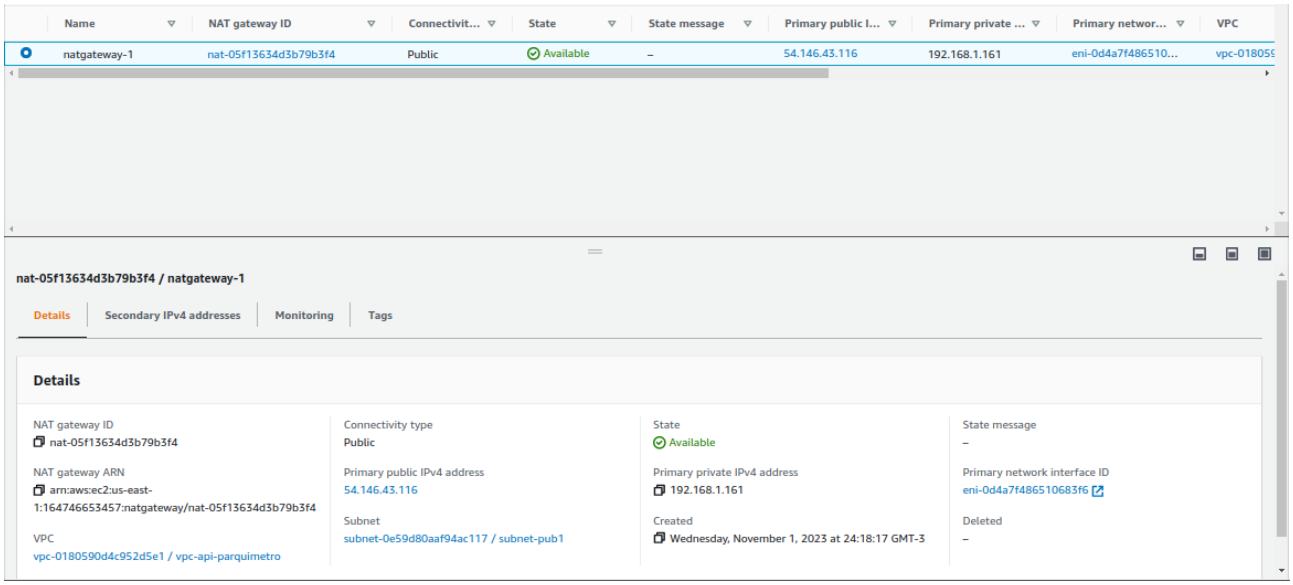
- Minhas VPCs → Adicione uma nova VPC, exemplo:



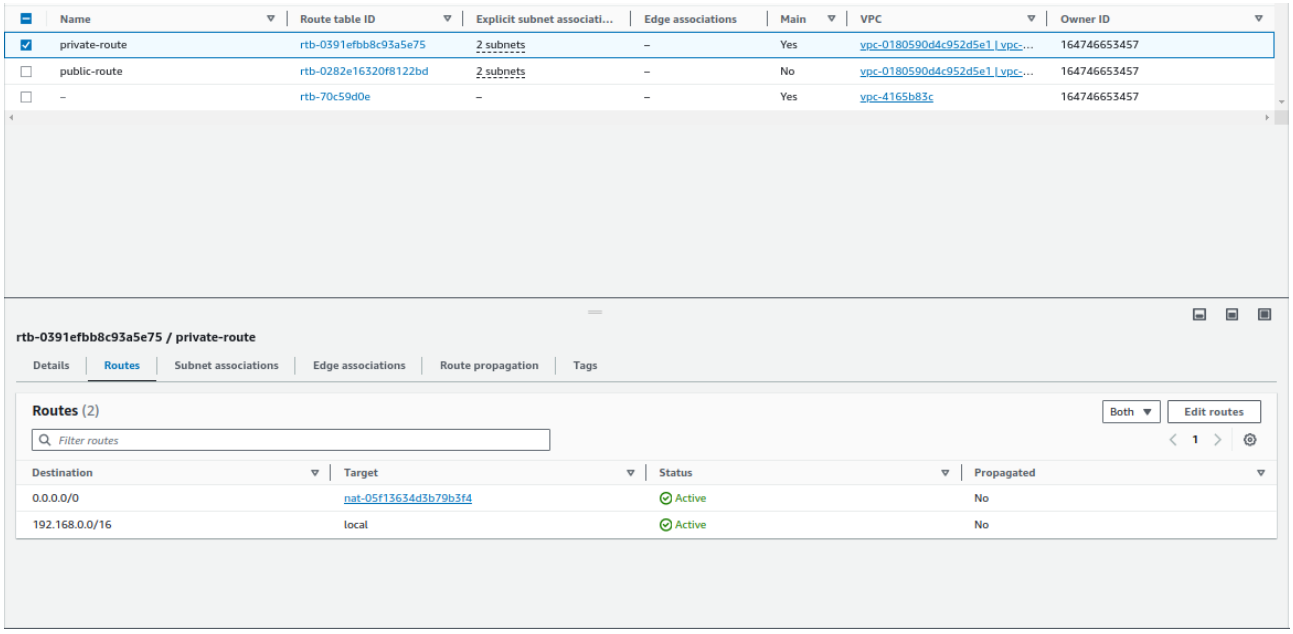
- Sub-redes → Adicione 2 sub-redes privadas em 'Availability Zone' diferentes e vinculadas a nova VPC criada, exemplo:



- NAT gateways → Adicione vinculado a uma das sub-redes privadas criadas anteriormente e aloque um IP Elástico, exemplo:



- Tabelas de rota → Crie uma tabela de roteamento, vinculando ao VPC criado e também as 2 sub-redes, após, inclua uma rota any para o NAT gateway, exemplo:

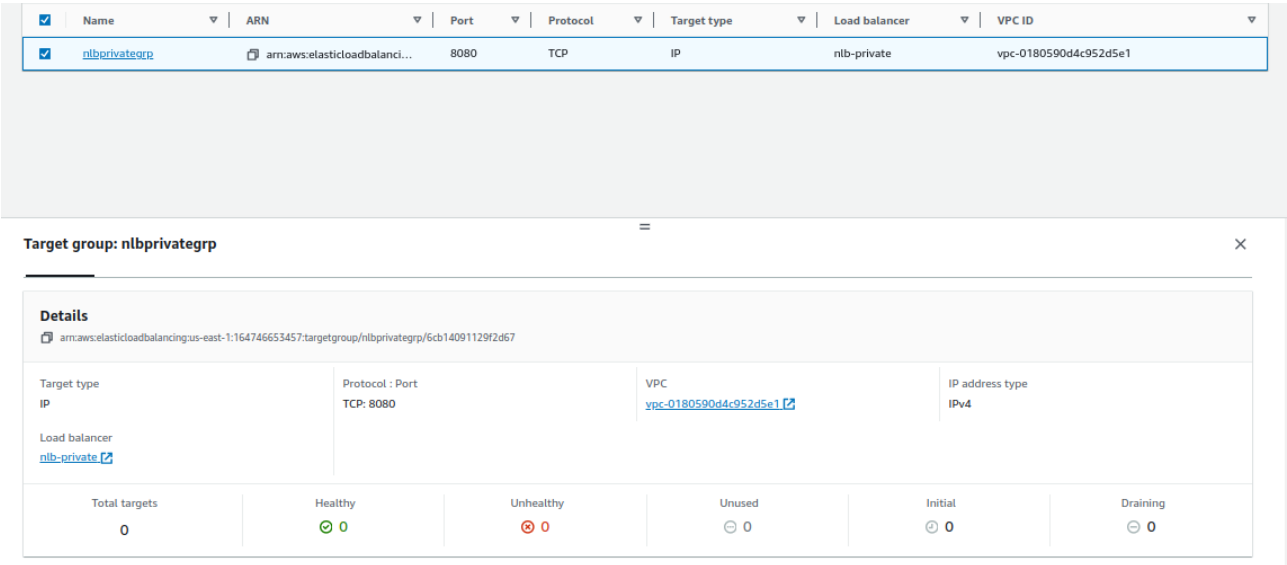


Parte 2 – Load Balancing:

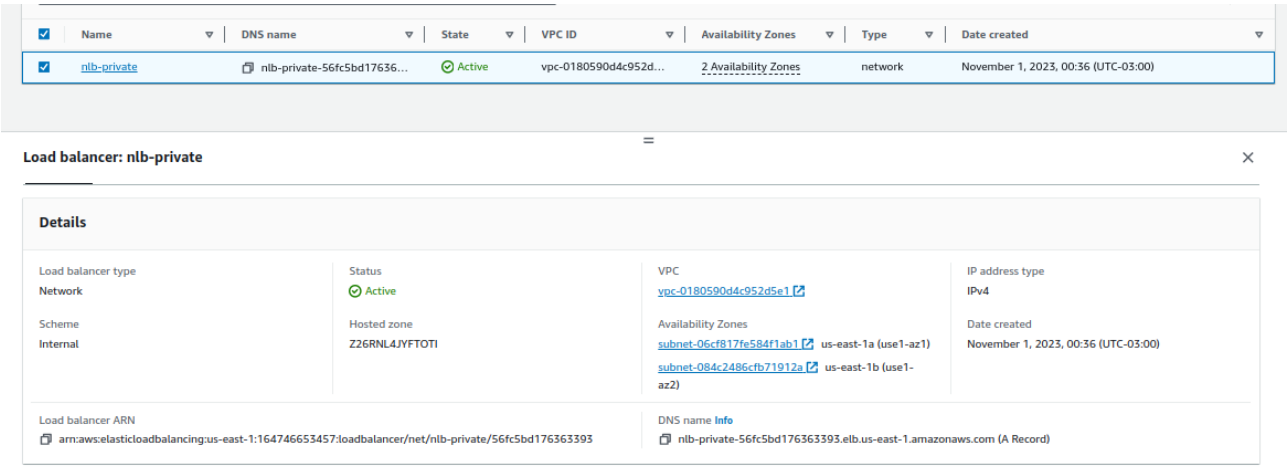
- Target Groups → Configurações importantes:

- Tipo do target = Ip Addresses
- Protocolo = TCP, Porta = 8080
- Selecionar a VPC criada no passo 1
- Health check protocol = HTTP, /

Exemplo:



- Load Balancers → Criar ‘Network Load Balancer’, Scheme = internal, selecione a VPC criada no passo 1, Mappings = Adicionar as 2 sub-redes criadas no passo 1, Listener = TCP - 8080 e o target group criado anteriormente. Exemplo:

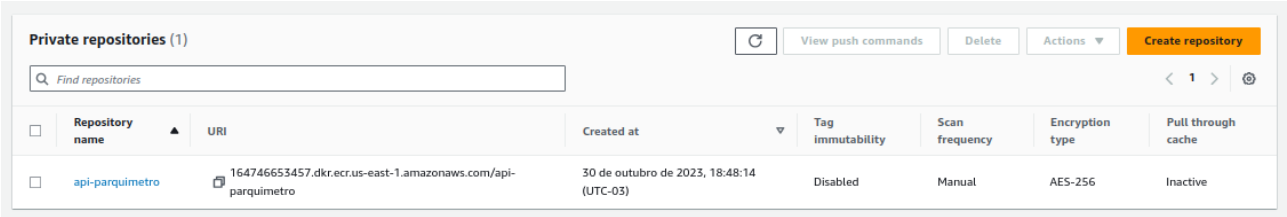


Parte 3 – ECR:

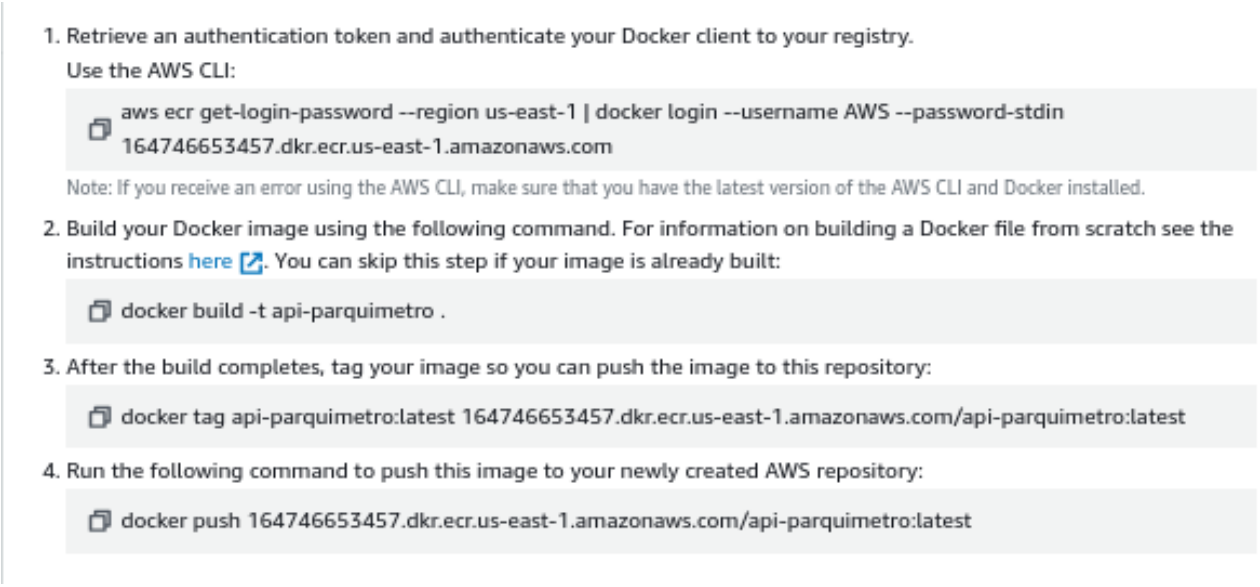
DockerFile do projeto, exemplo:

```
FROM eclipse-temurin:17

COPY ./target/*.jar app.jar

ENTRYPOINT ["java", "-jar" ,"/app.jar"]
```

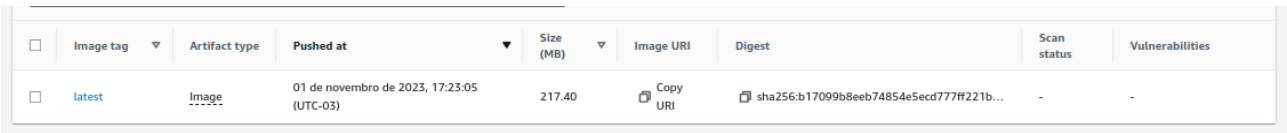
- Create Repository → Acesse o ECR (Elastic Container Registry) e crie um repositório, exemplo:



- Siga as seguintes orientações entregues pela AWS e adicione a imagem do projeto:

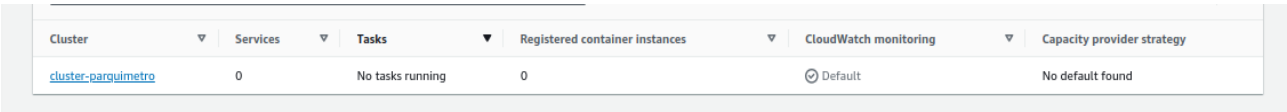


- Após a imagem ser enviada, exemplo:



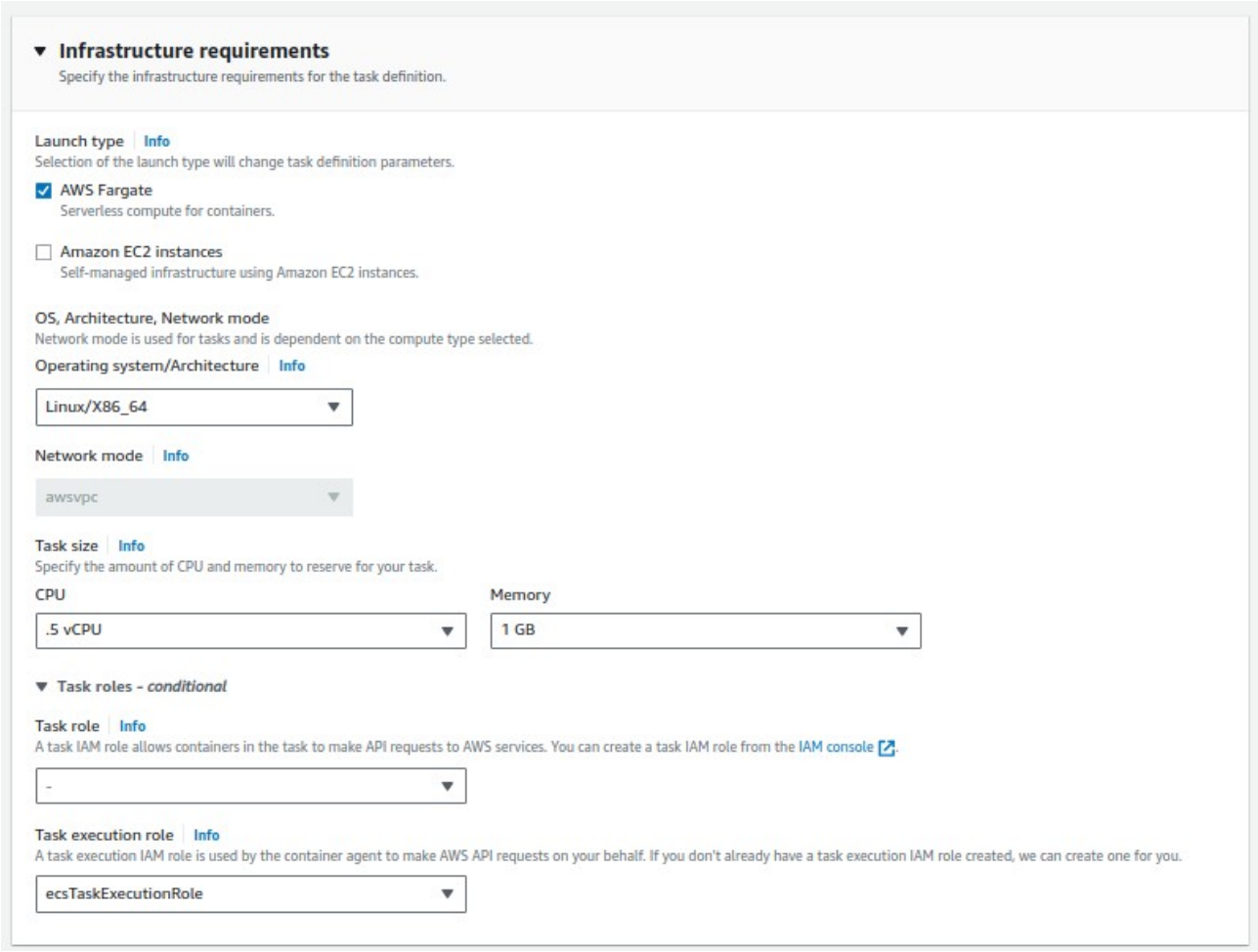
Parte 4 – ECS:

- Create Cluster → Crie o cluster com a infraestrutura utilizando o ‘AWS Fargate‘. Exemplo:



Cluster	Services	Tasks	Registered container instances	CloudWatch monitoring	Capacity provider strategy
cluster-parquimetro	0	No tasks running	0	Default	No default found

- Task Definition → Infraestrutura, exemplo:



Infrastructure requirements

Specify the infrastructure requirements for the task definition.

Launch type | Info

Selection of the launch type will change task definition parameters.

- [x] AWS Fargate
  Serverless compute for containers.
- [ ] Amazon EC2 instances
  Self-managed infrastructure using Amazon EC2 instances.

OS, Architecture, Network mode

Network mode is used for tasks and is dependent on the compute type selected.

Operating system/Architecture | Info

Linux/X86_64

Network mode | Info

awsvpc

Task size | Info

Specify the amount of CPU and memory to reserve for your task.

CPU: .5 vCPU

Memory: 1 GB

▼ Task roles - *conditional*

Task role | Info

A task IAM role allows containers in the task to make API requests to AWS services. You can create a task IAM role from the IAM console.

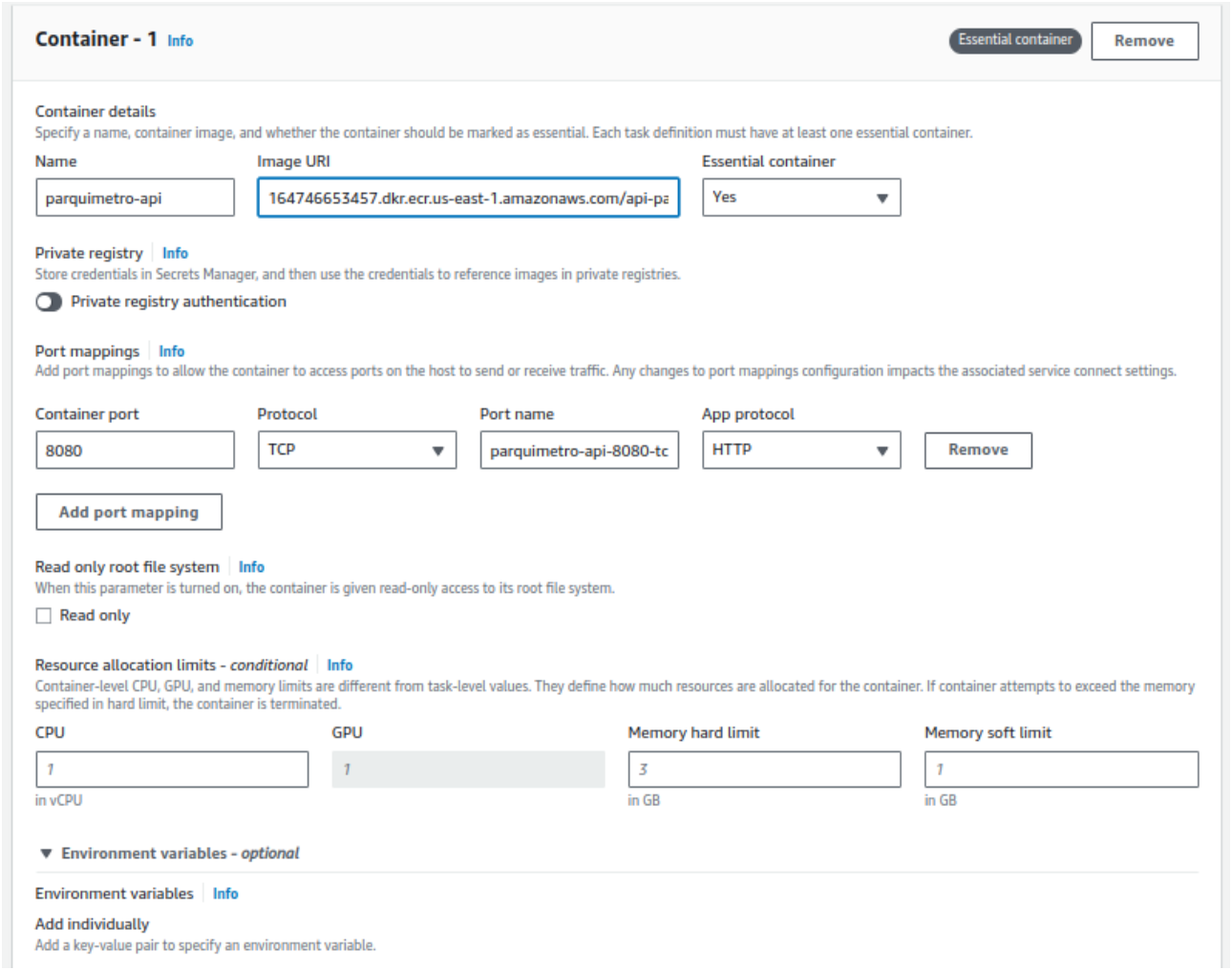
-

Task execution role | Info

A task execution IAM role is used by the container agent to make AWS API requests on your behalf. If you don't already have a task execution IAM role created, we can create one for you.

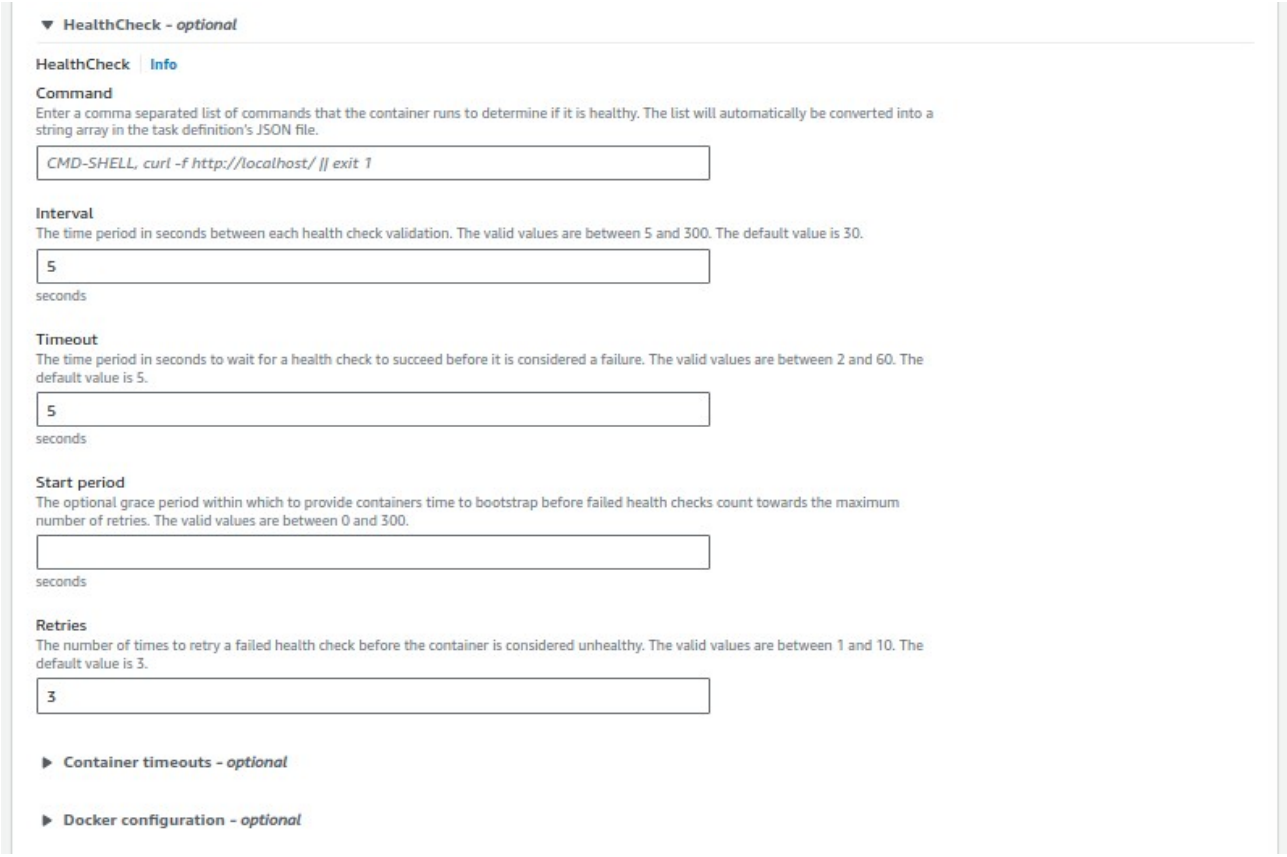
ecsTaskExecutionRole

- Task Definition → Container, exemplo:

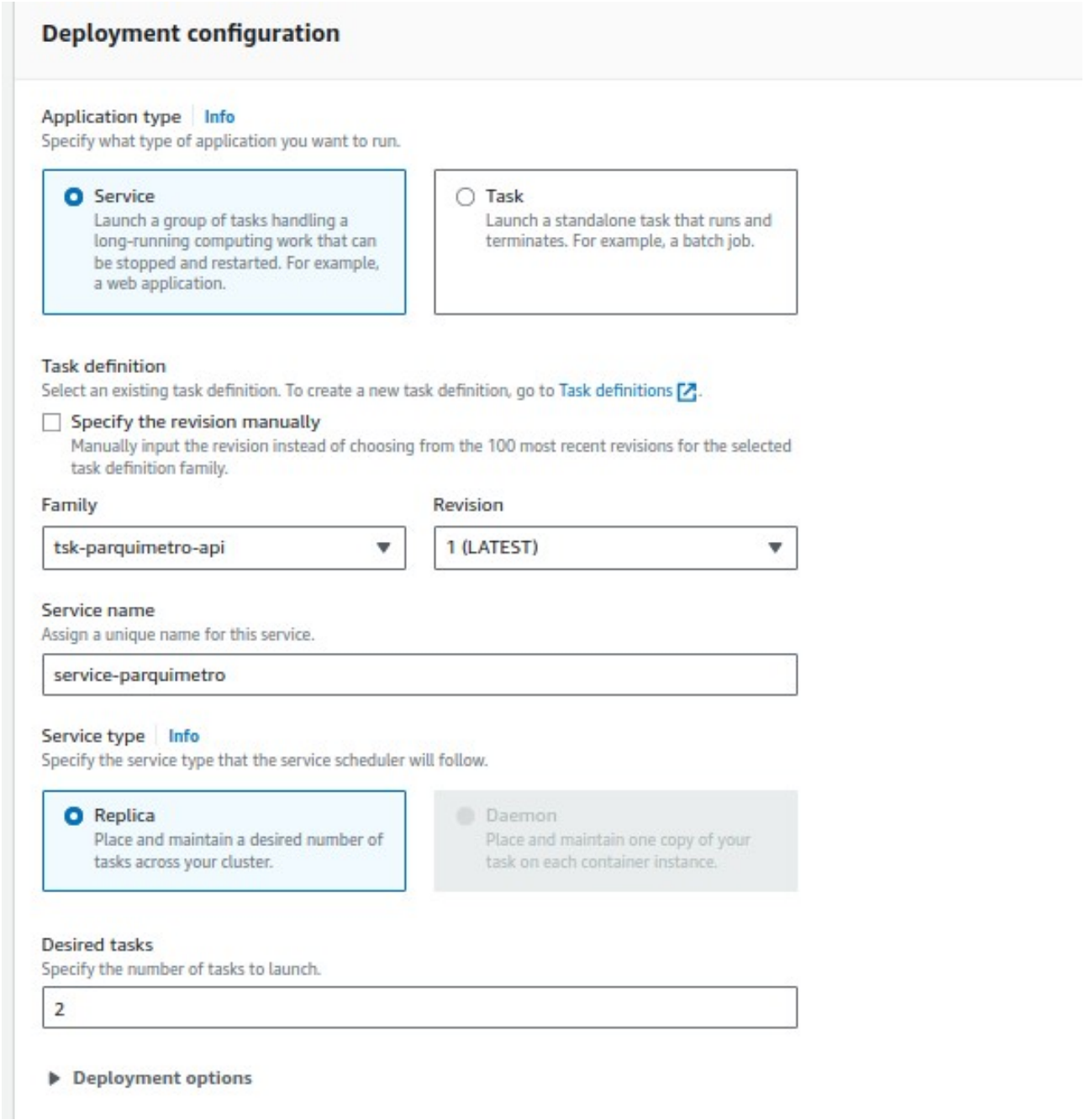


O image URI, é o endereço URI disponibilizado lá no ECR.

- Task Definition → Inclua o HealthCheck, exemplo:

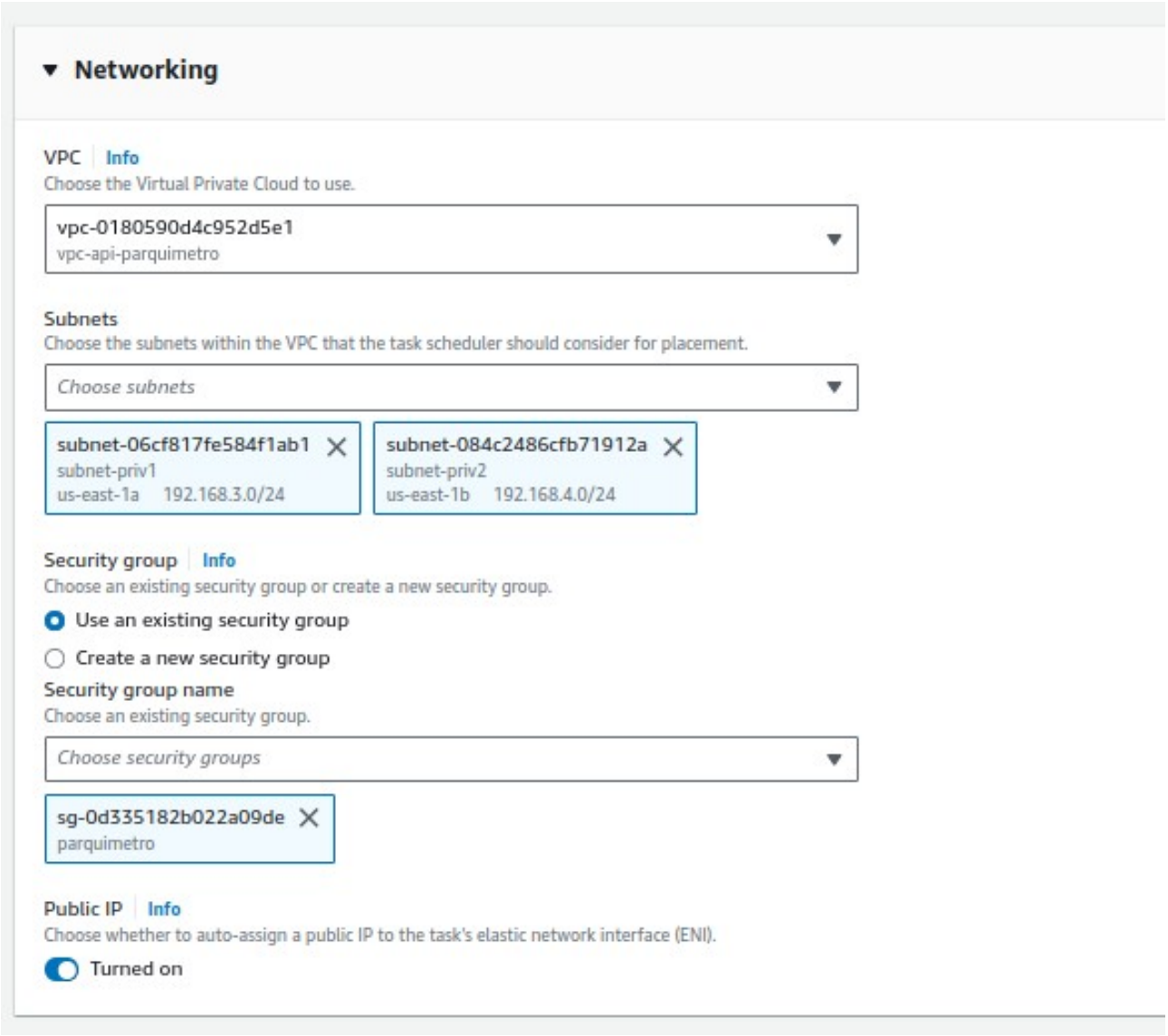


- Create Service → Configuração de Deploy. Exemplo:

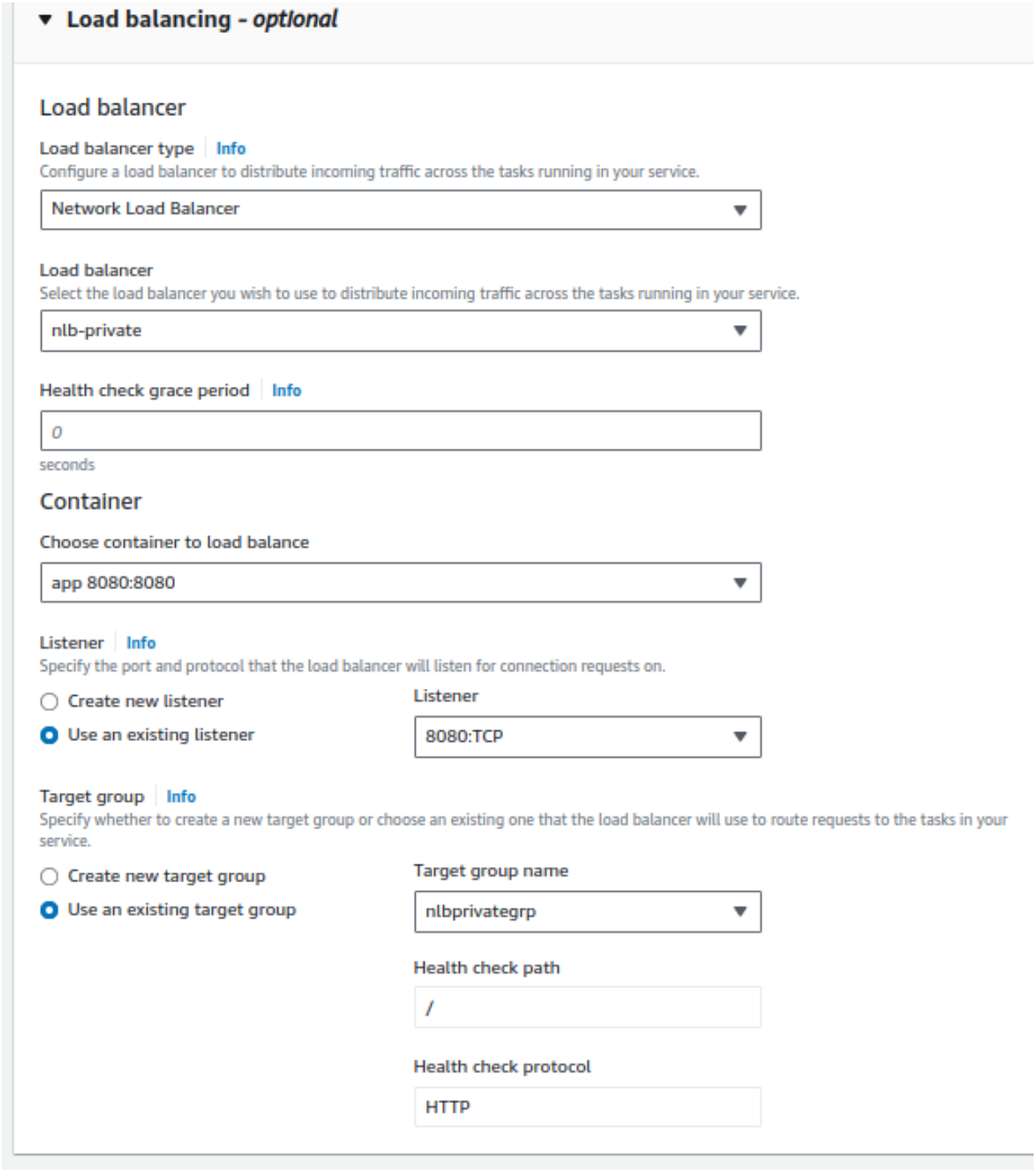


Family no caso, é a Task Definition criada anteriormente.

- Create Service → Na rede, use a VPC do passo 1, assim como as sub-redes. Exemplo:

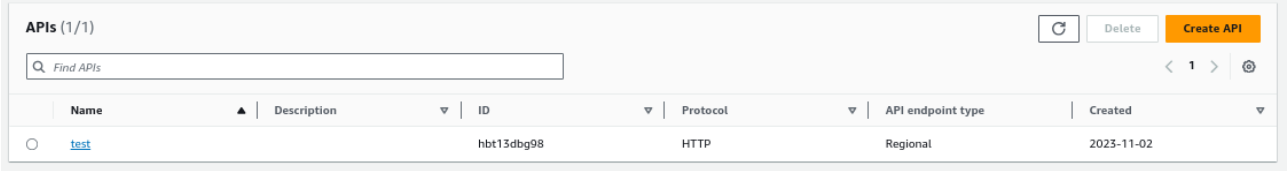


- Create Service → O load balancing é o ‘Network Load Balancer’, selecione o que foi criado na Parte 2, use também o Listener já criado e atribua ao traget group que já existe. Exemplo:

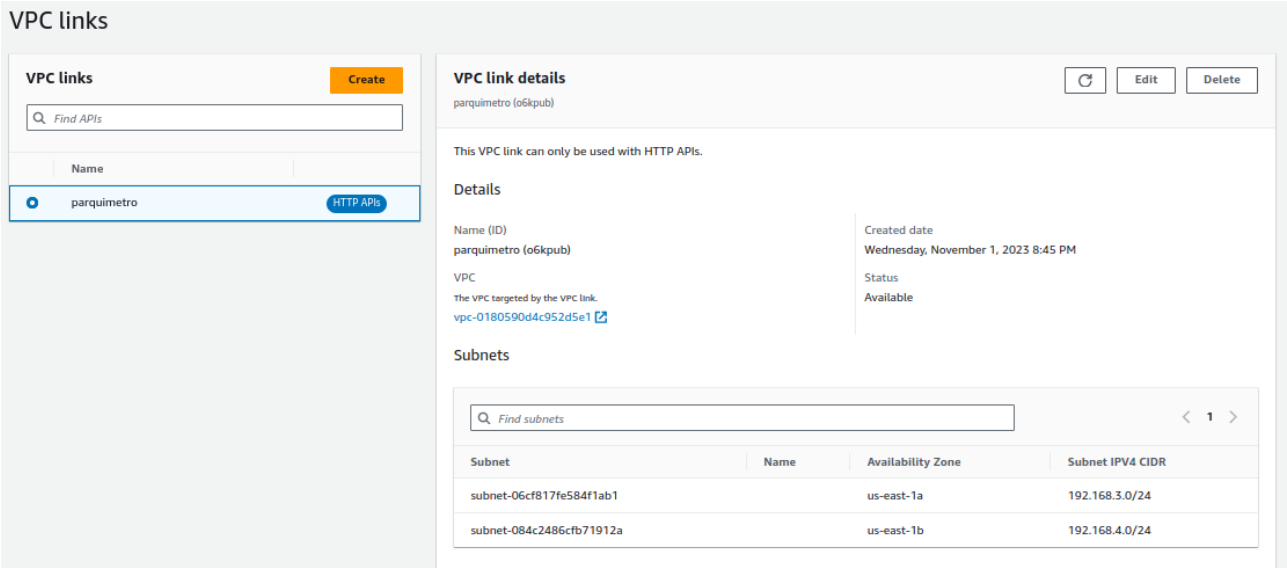


Parte 5 – API Gateway:

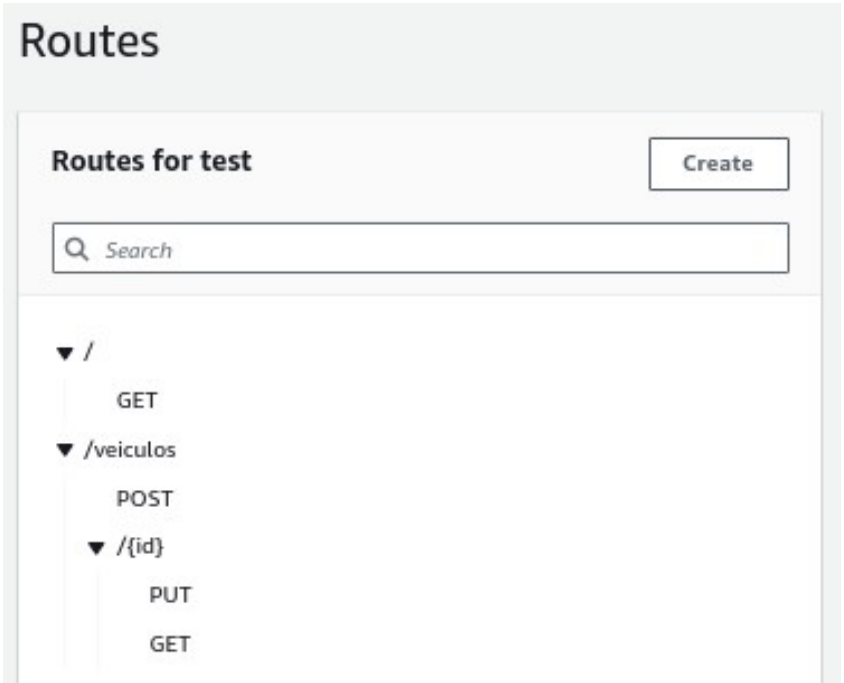
- Create API → Crie uma ‘HTTP API’ e inclua um nome. Exemplo:



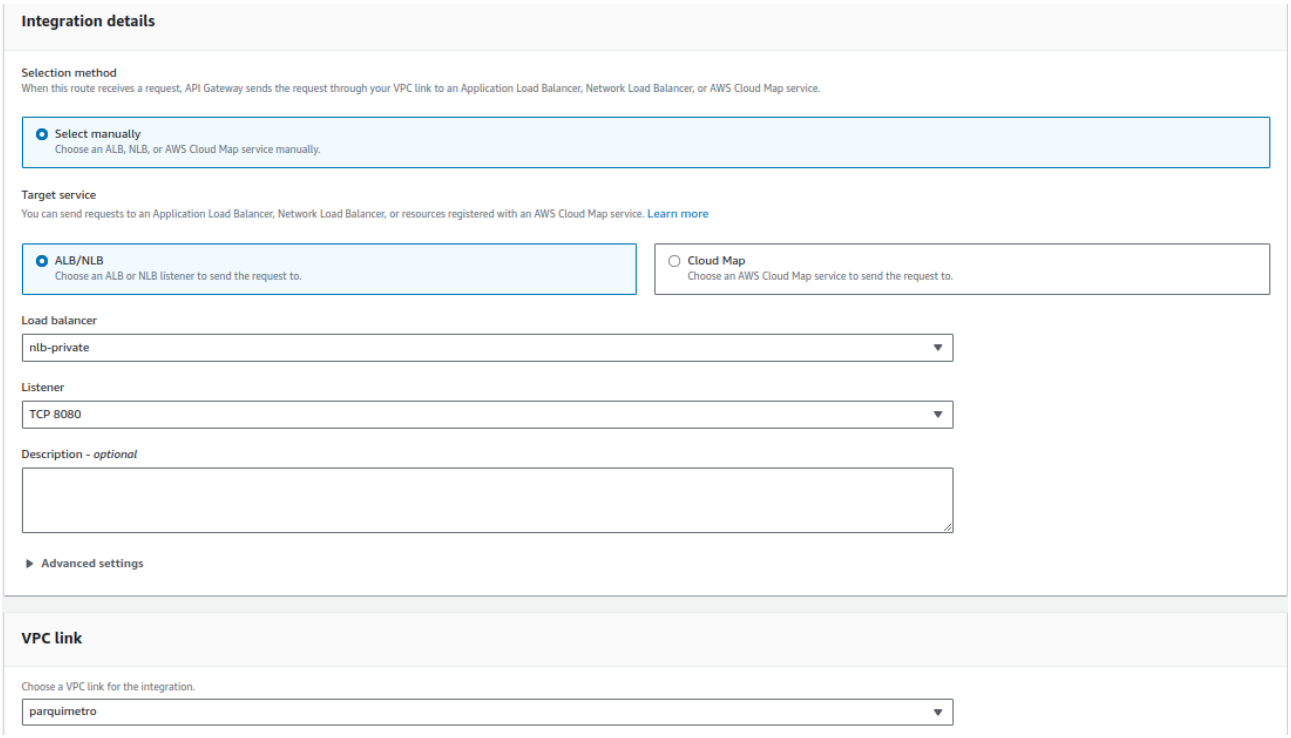
- VPC links → Crie um ‘VPC link for HTTP API’s’, selecione a VPC criada no passo 1 juntamente com as suas 2 sub-redes. Exemplo:



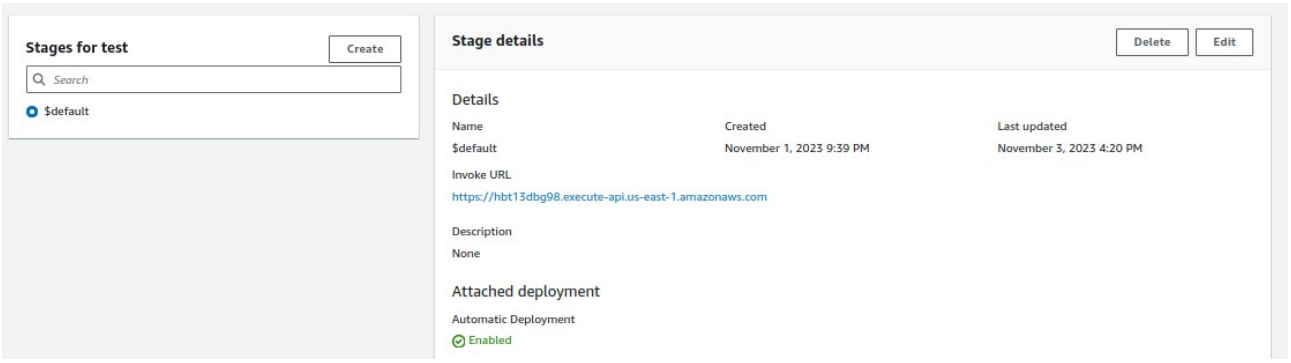
- Rotas → Adicione as rotas da API. Exemplo:



- Integração → Ao clicar na rota criada é possível incluir uma integração, selecione ‘Private Resources’ e adicione o Load balancer, listener e VPC link criados. Exemplo:



- Stages → Selecione o ‘$default’ e guarde a informação de ‘Invoke URL’. Exemplo:



Parte 6 – Postman:

- Consuma os seus endpoints criados. Exemplo: