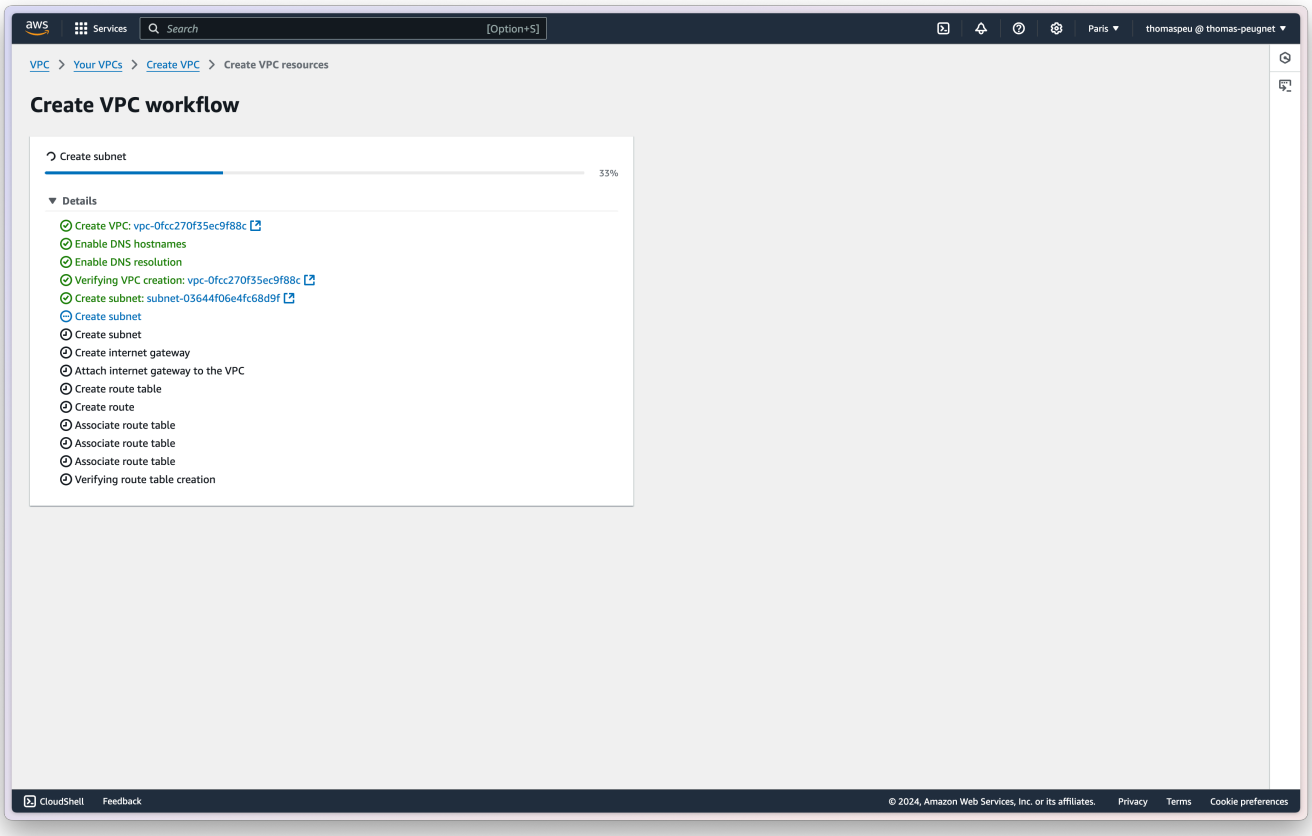
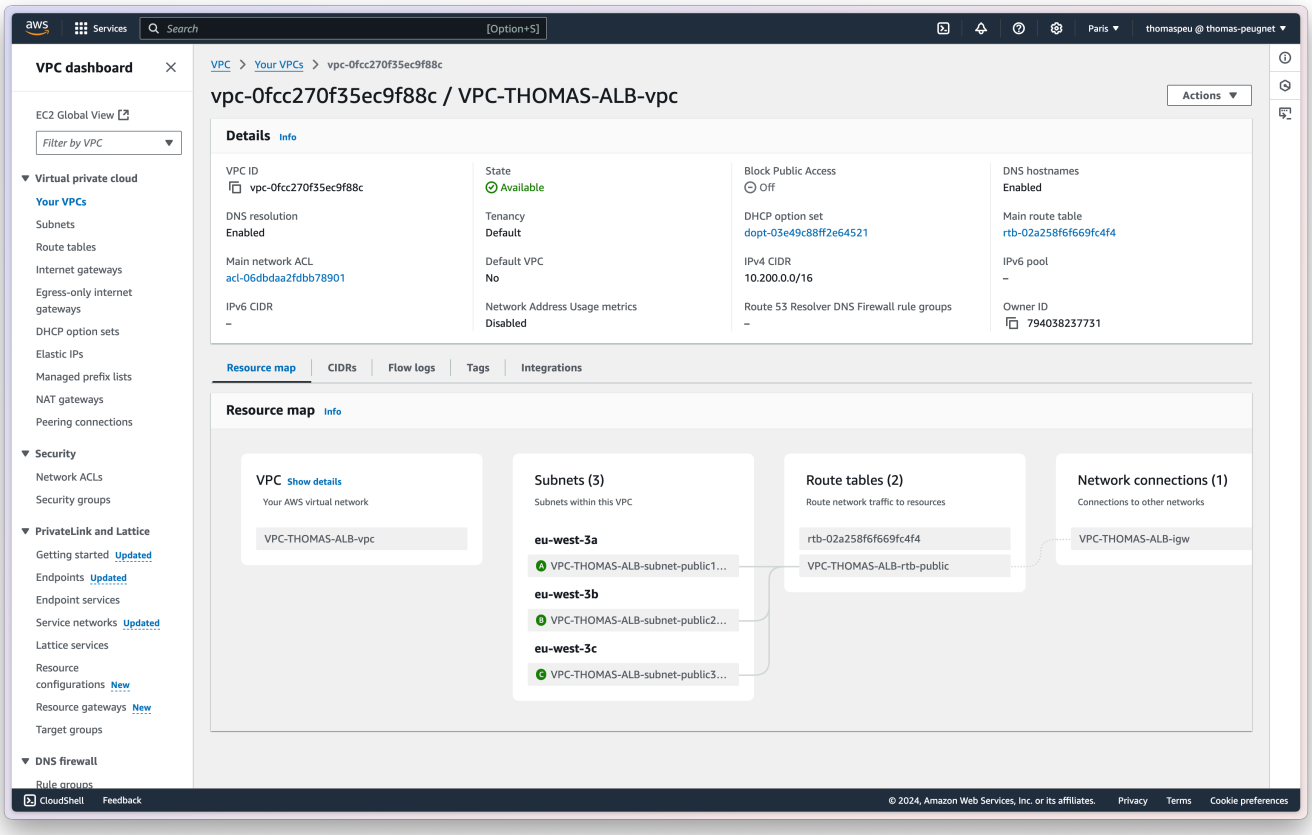
Rendu TP08

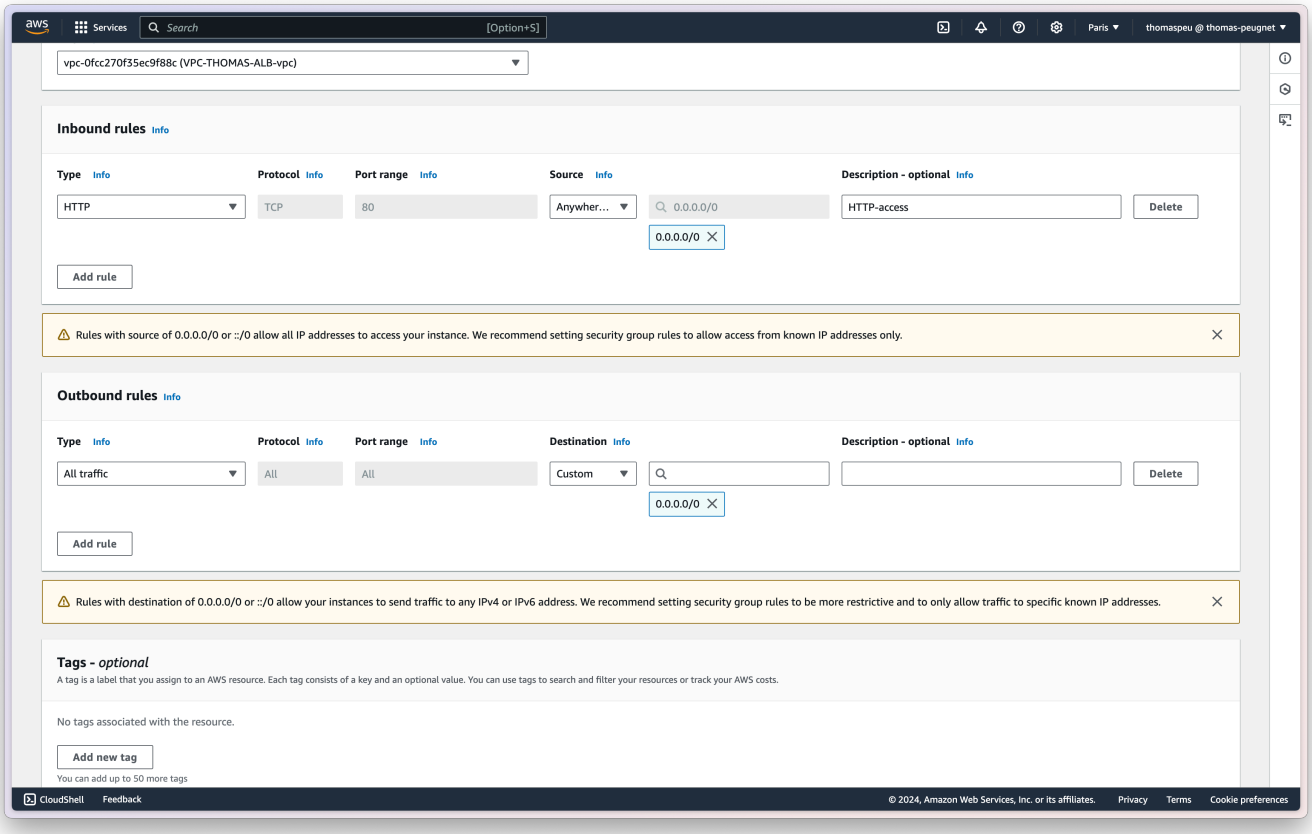
Compte rendu du TP 08 effectué par `Thomas PEUGNET`.

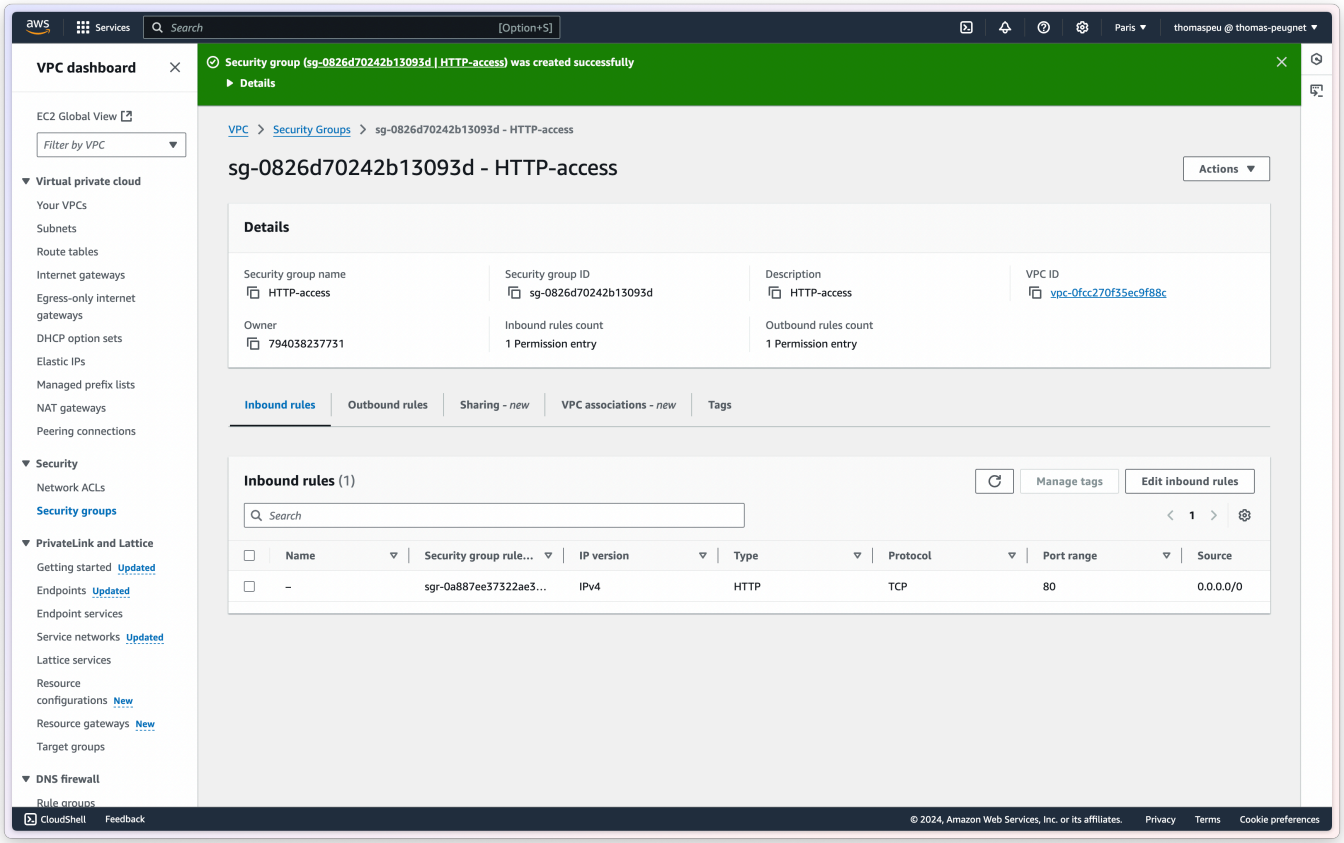
Nous créons le VPC `VPC-THOMAS-ALB`.



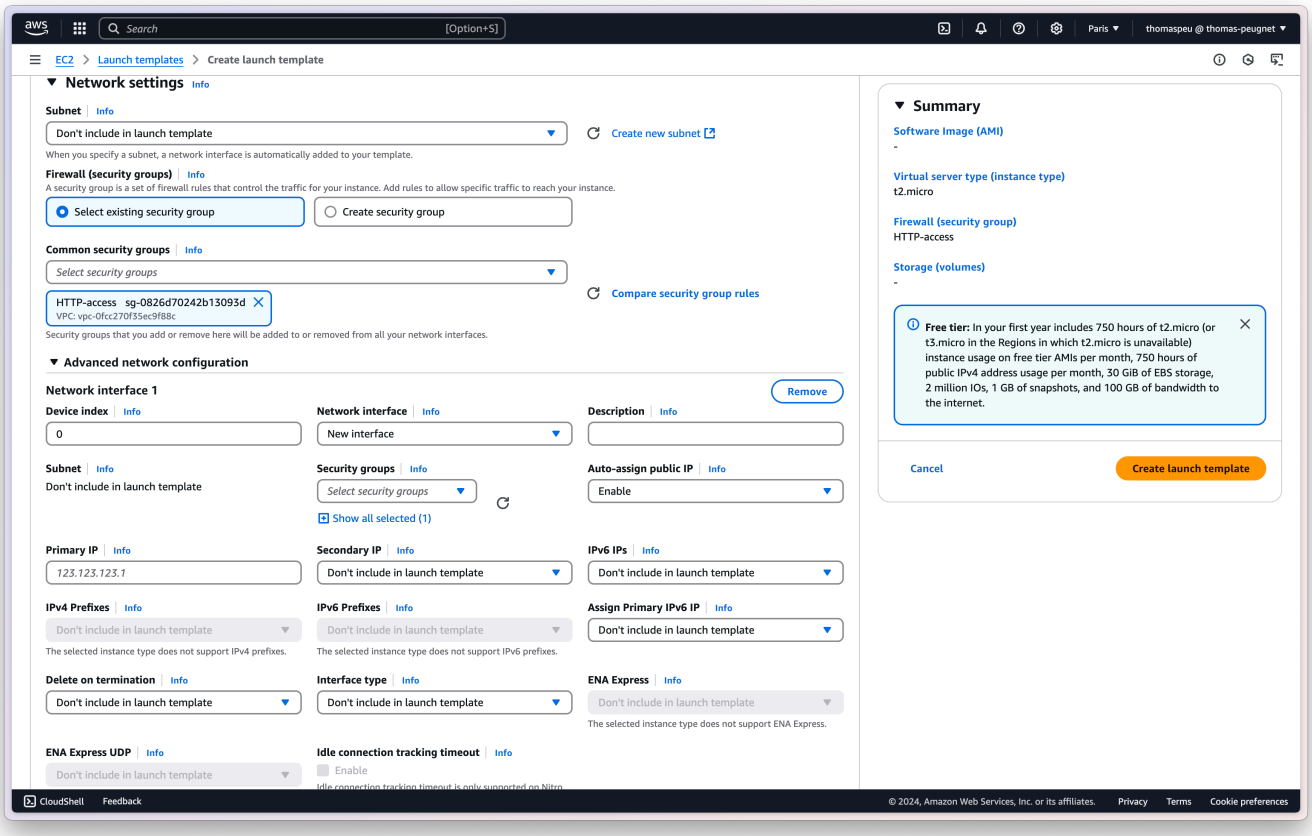


Nous créons un Security Group `HTTP-access`.



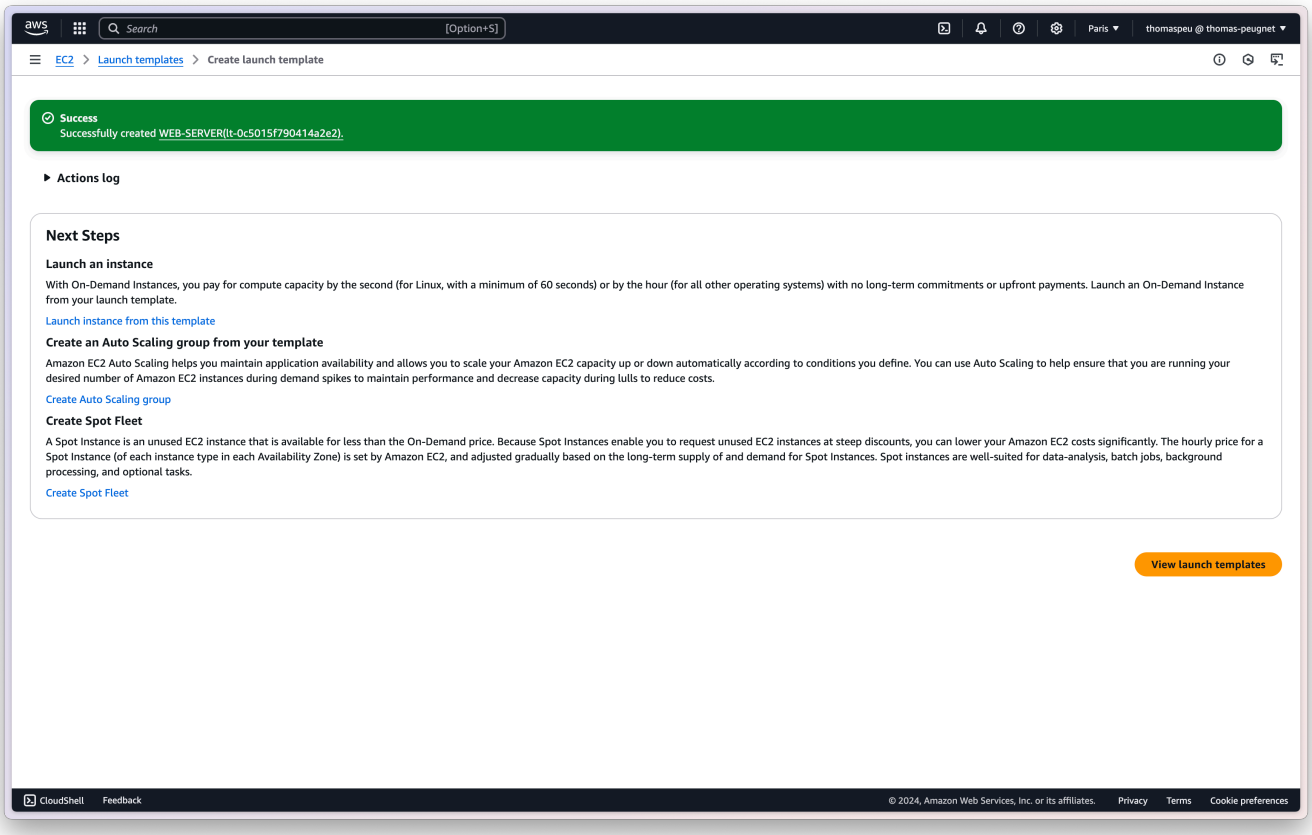


Nous créons un template d'instance `WEB-SERVER`.

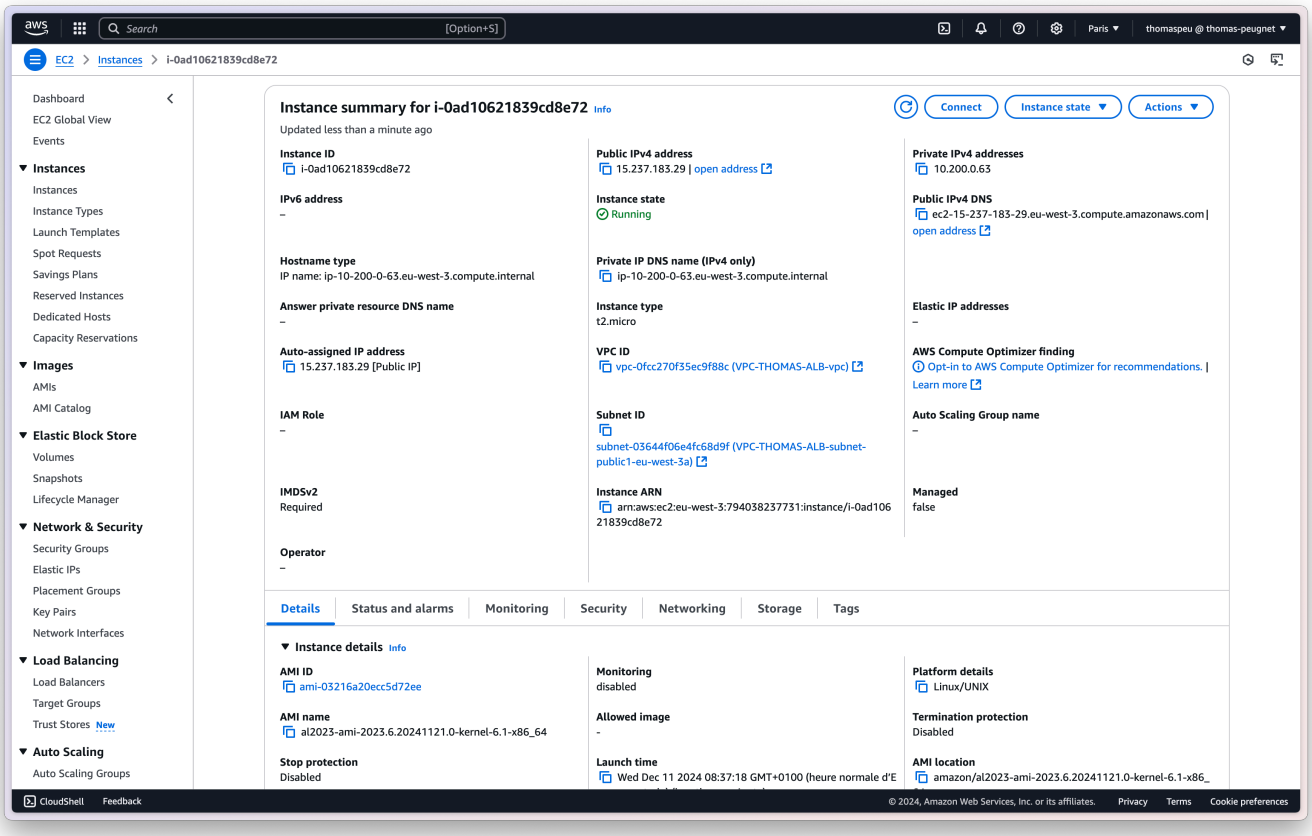


Nous ajoutons le code suivant dans User Data.

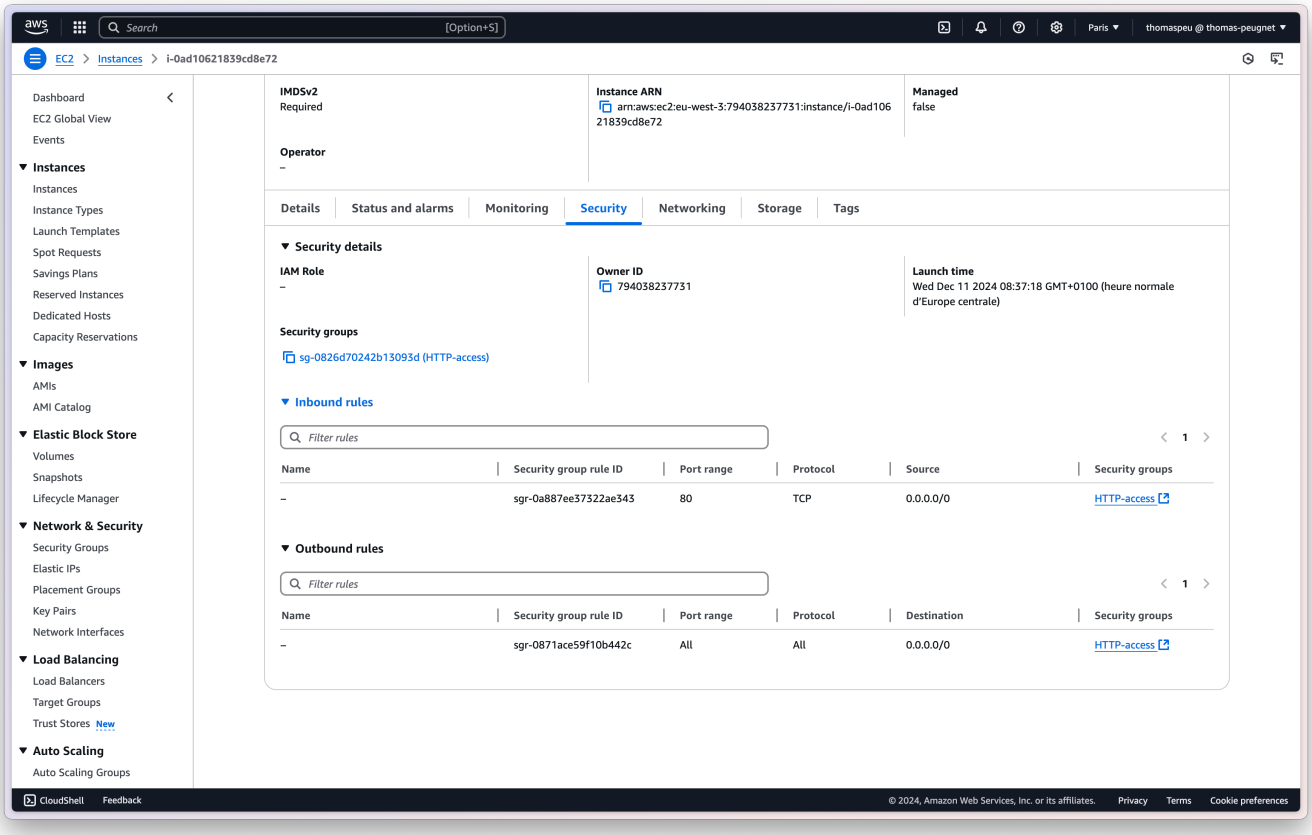
```
#!/bin/bash

# Update the system and install necessary packages
yum update -y
yum install -y httpd

# Start the Apache server
systemctl start httpd
systemctl enable httpd

# Fetch the Availability Zone information using IMDSv2
TOKEN=`curl -X PUT "http://169.254.169.254/latest/api/token" -H "X-aws-ec2-metadata-token-ttl-seconds: 21600"`
AZ=`curl -H "X-aws-ec2-metadata-token: $TOKEN" http://169.254.169.254/latest/meta-data/placement/availability-zone`

# Create the index.html file
cat > /var/www/html/index.html <<EOF
<html>
<head>
    <title>Instance Availability Zone</title>
    <style>
        body {
            background-color: #6495ED; /* Cornflower Blue - a darker shade */
            color: white;
            font-size: 36px; /* Significantly larger text */
            display: flex;
            justify-content: center;
            align-items: center;
            height: 100vh;
            margin: 0;
            font-family: Arial, sans-serif;
        }
    </style>
</head>
<body>
    <div>This instance is located in Availability Zone: $AZ</div>
</body>
</html>
EOF

# Ensure the httpd service is correctly set up to start on boot
chkconfig httpd on
```



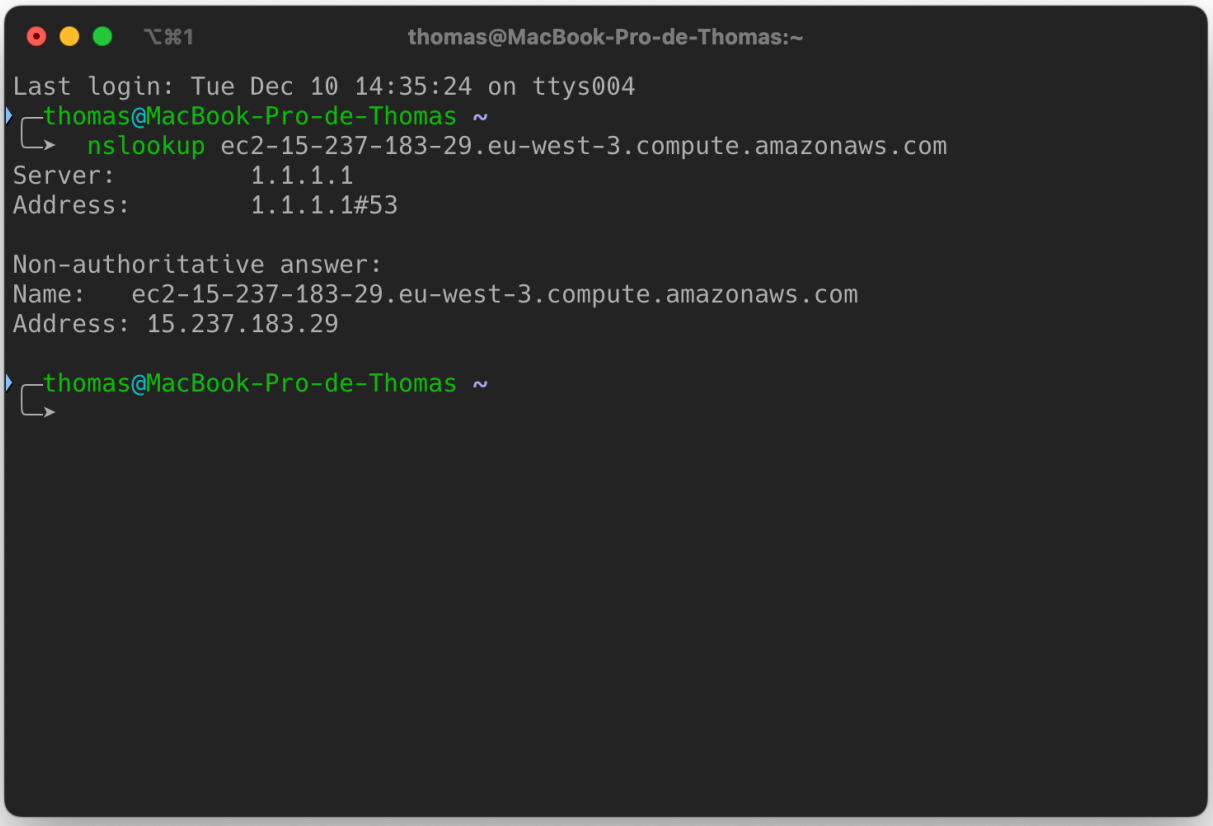
Nous créons une instance à partir de ce template.



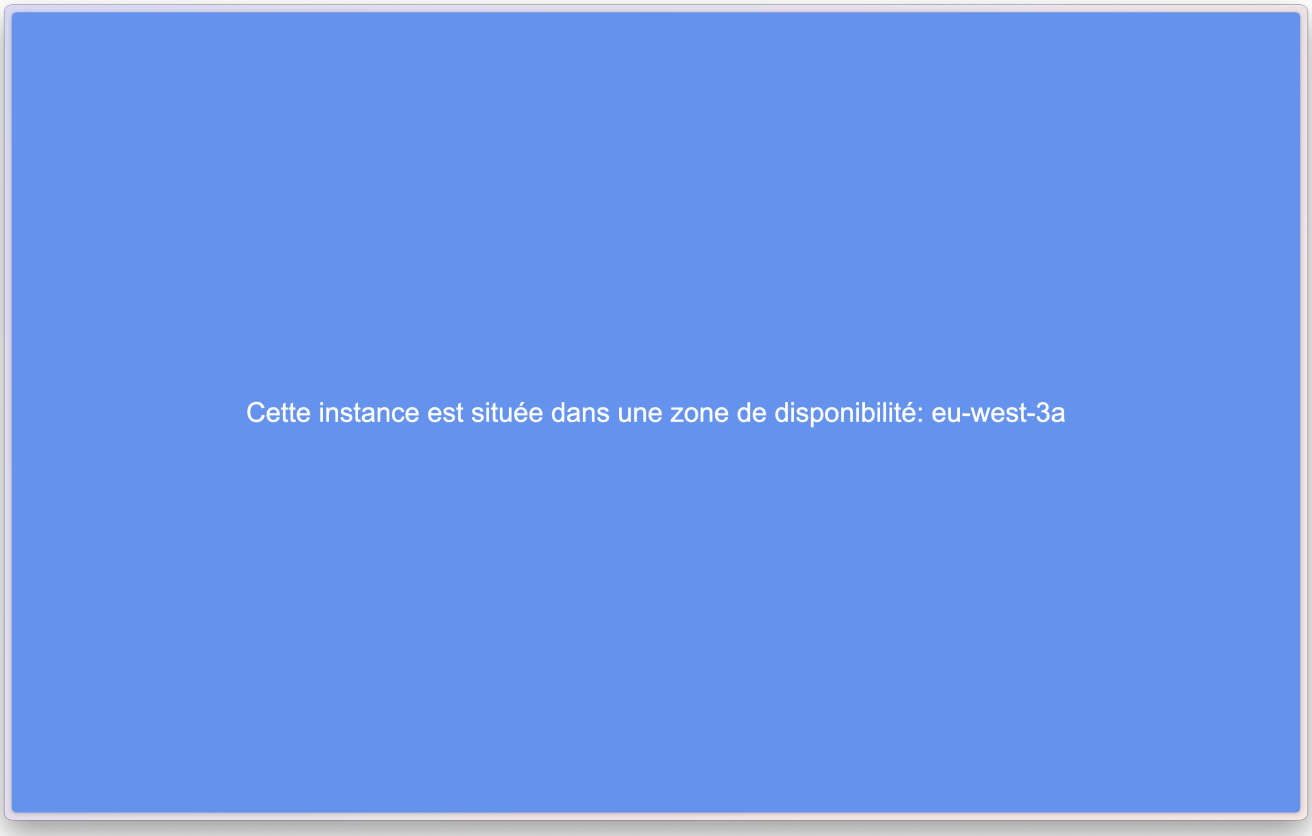
Les règles sont correctes.



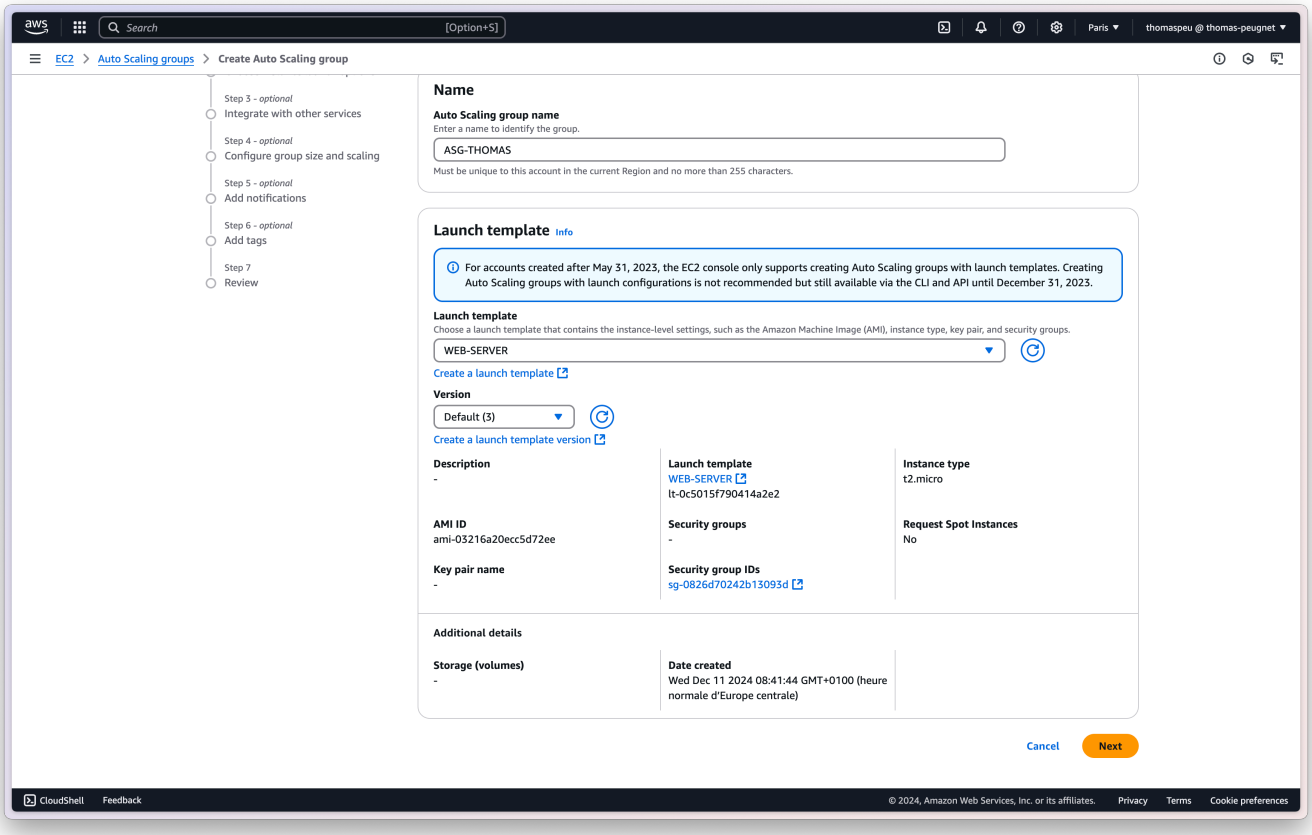
Le `nslookup` donne bien le résultat suivant.

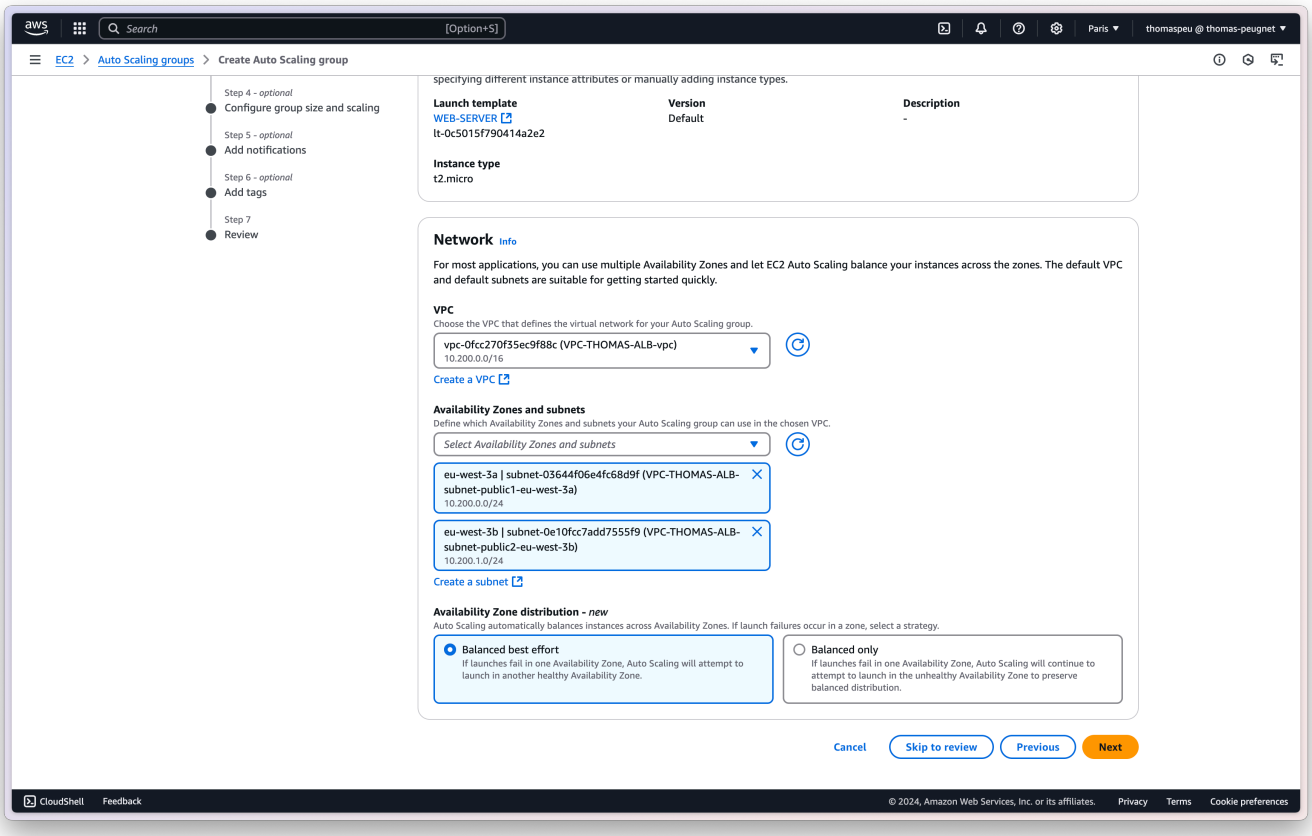


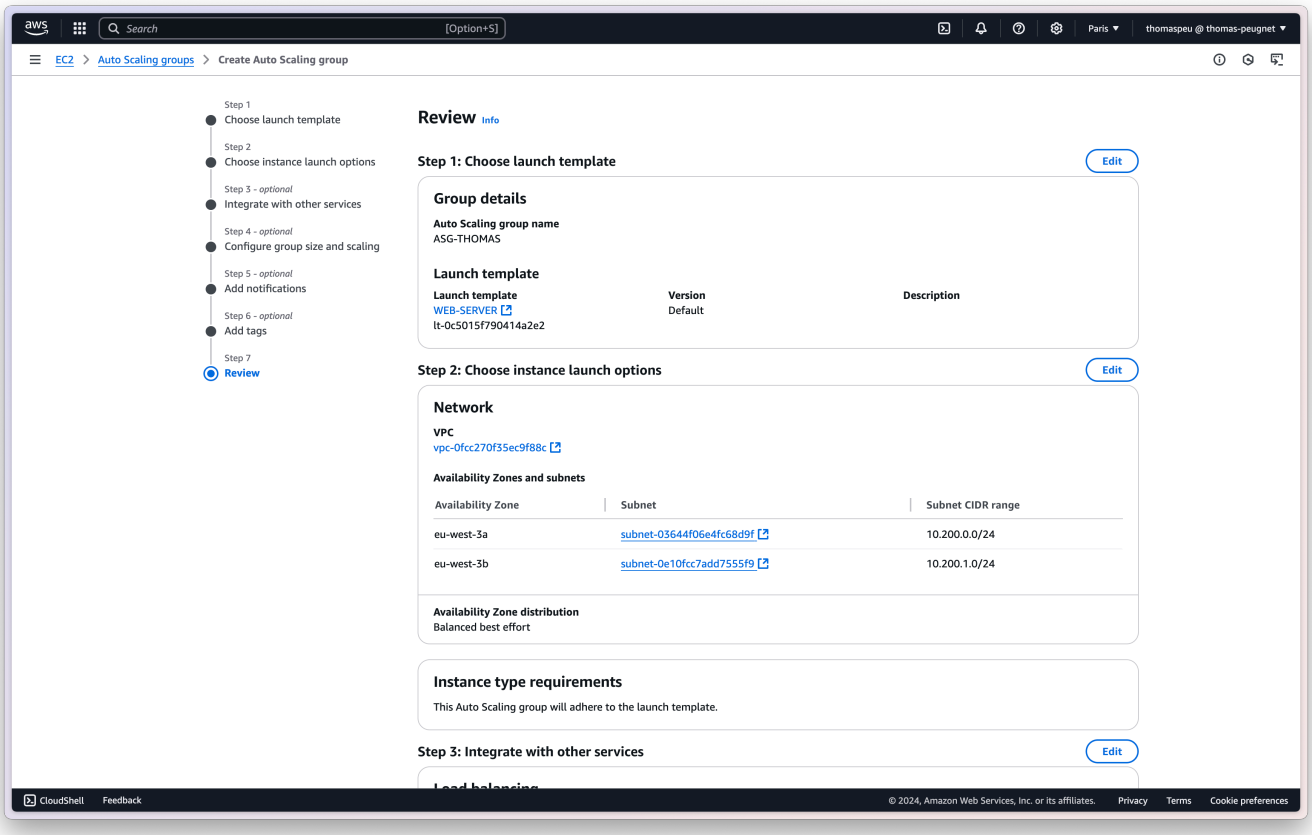
Nous avons bien un accès web à notre instance.

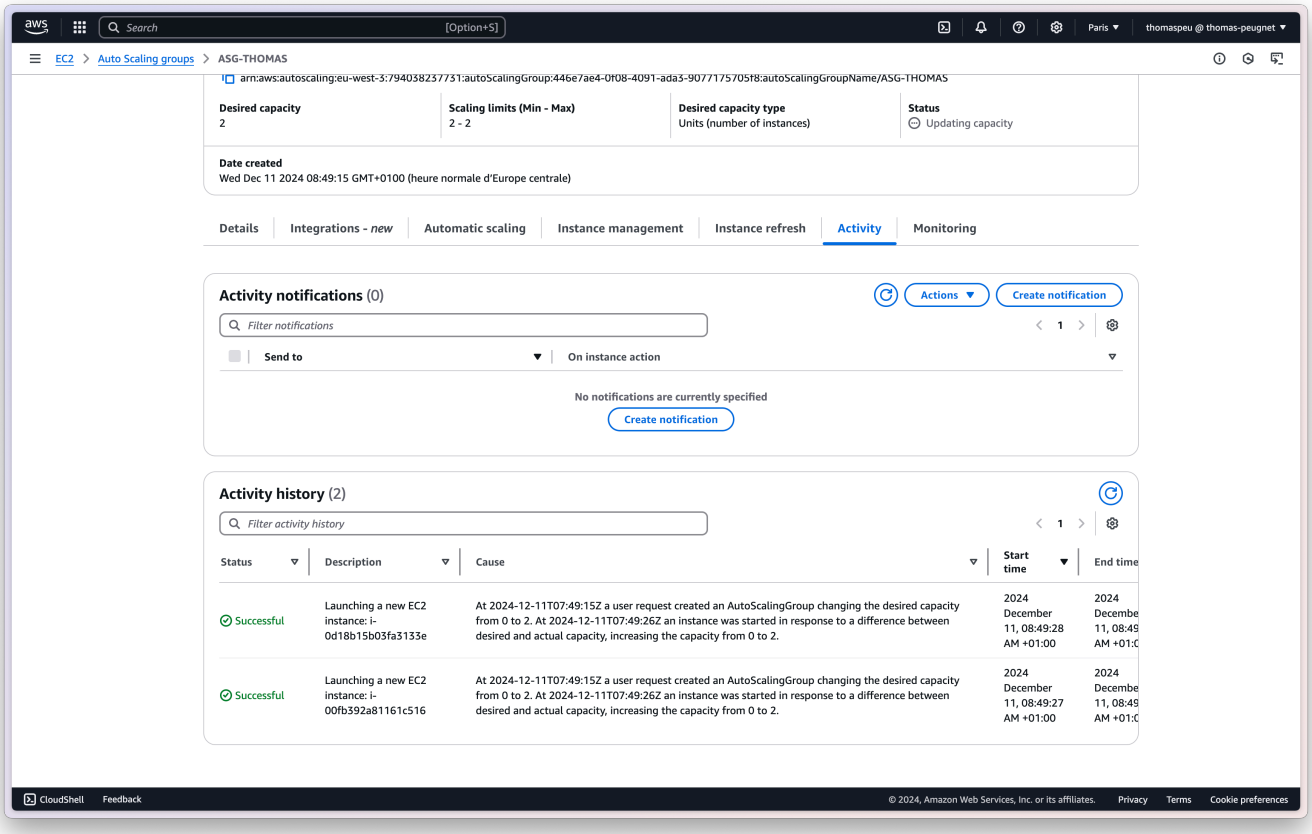


Nous créons un nouveau Auto Scaling Group.

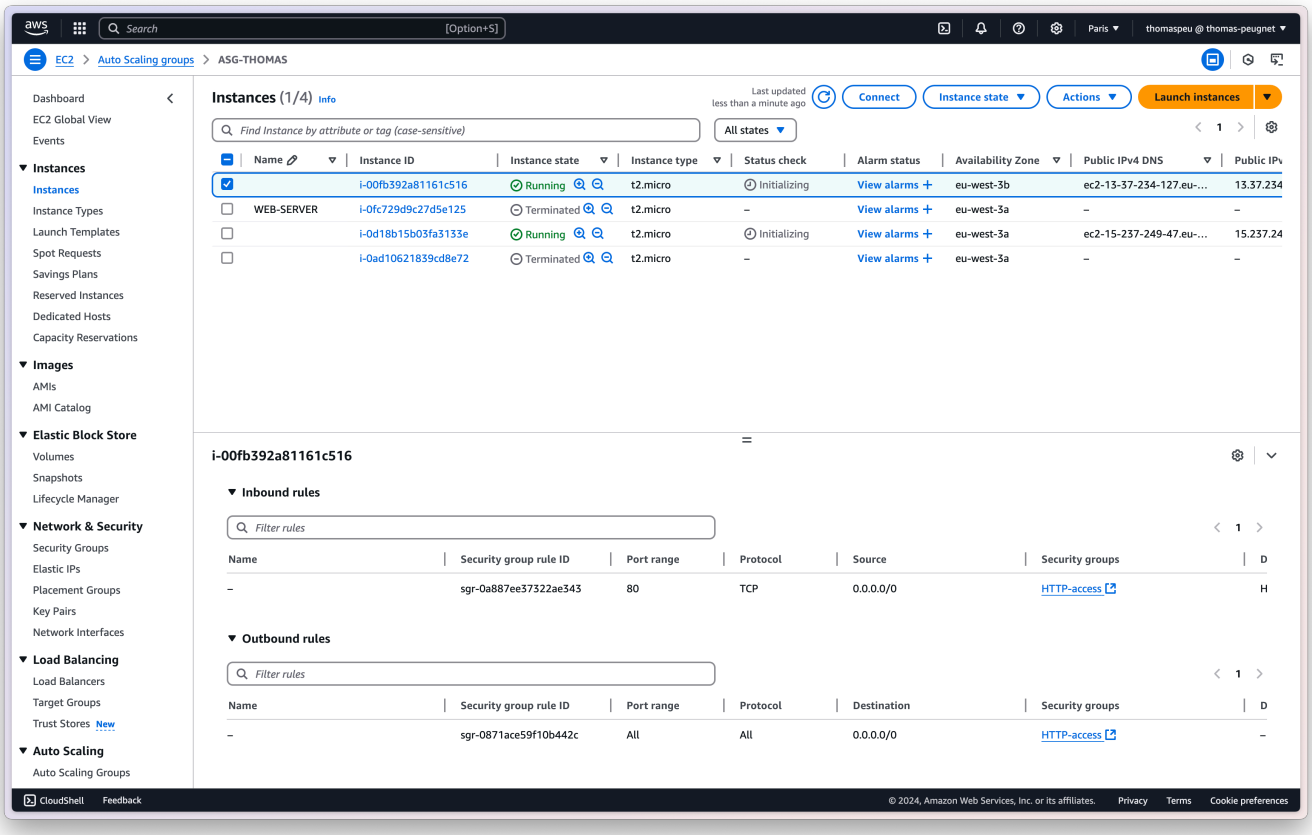




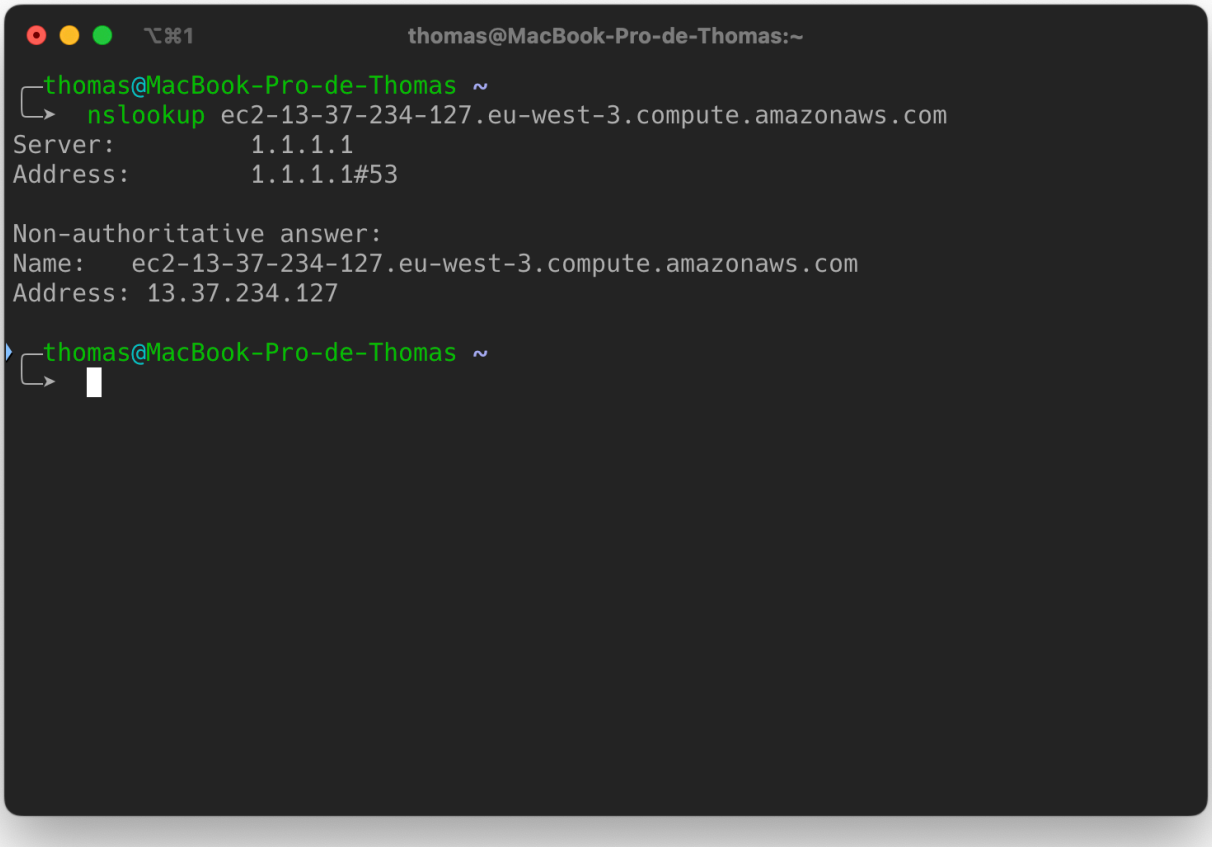


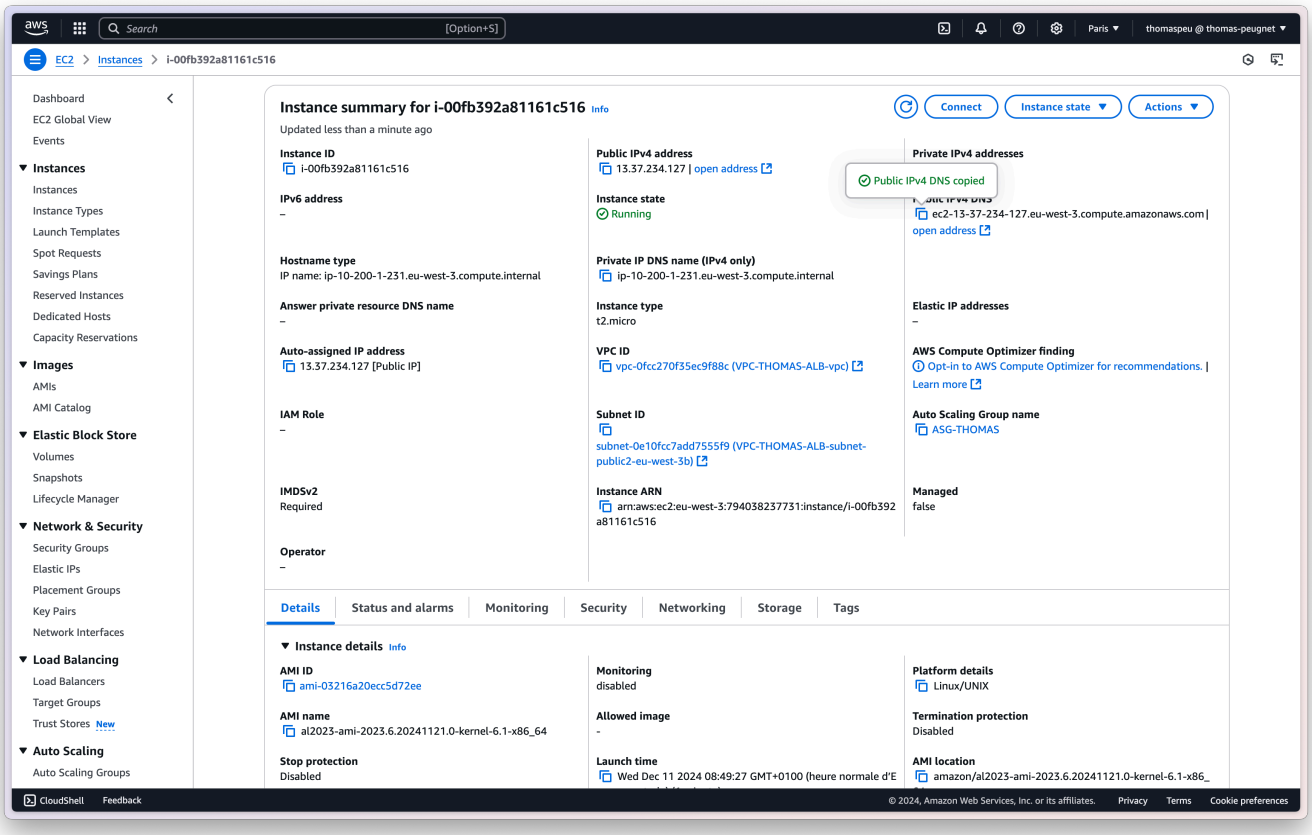


Nous constatons que nos instances se sont bien lancées.

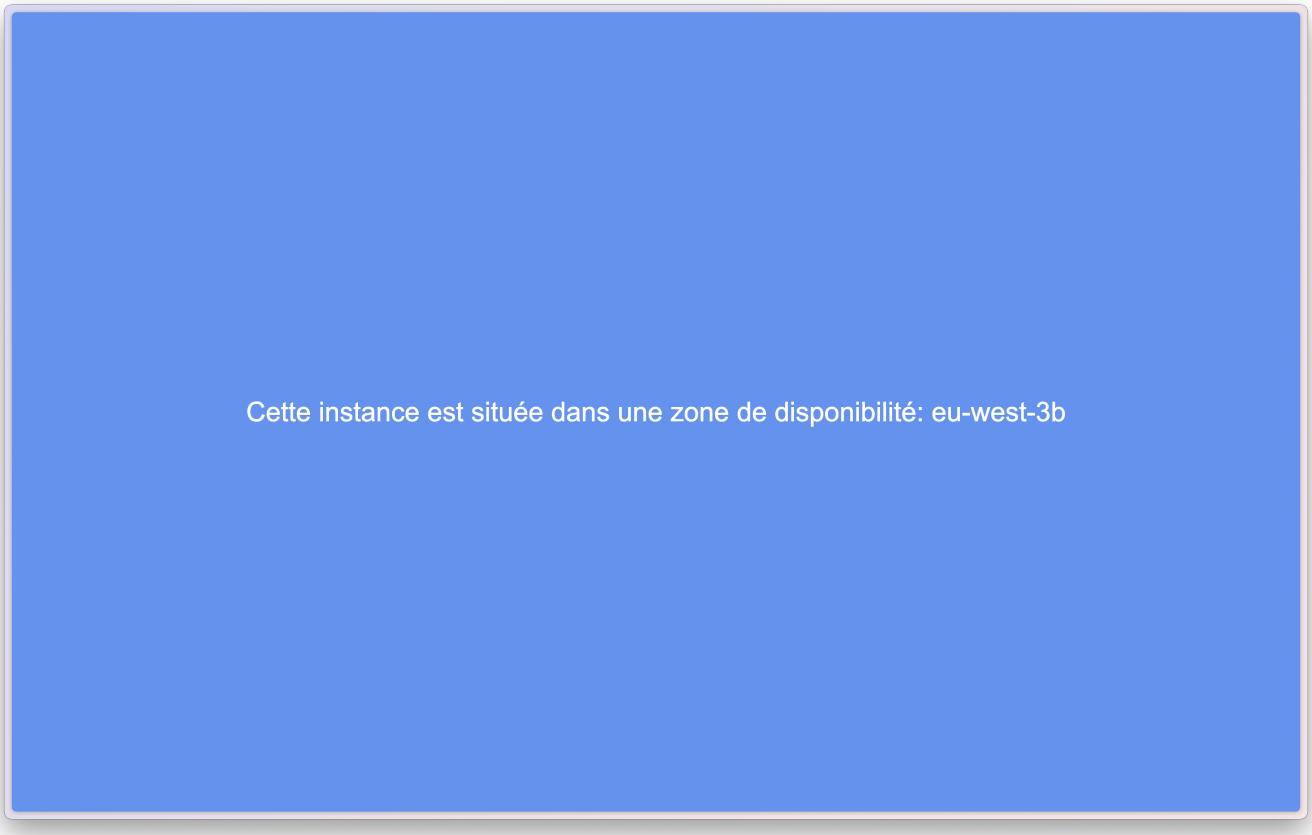


Le `nslookup` est concluant.

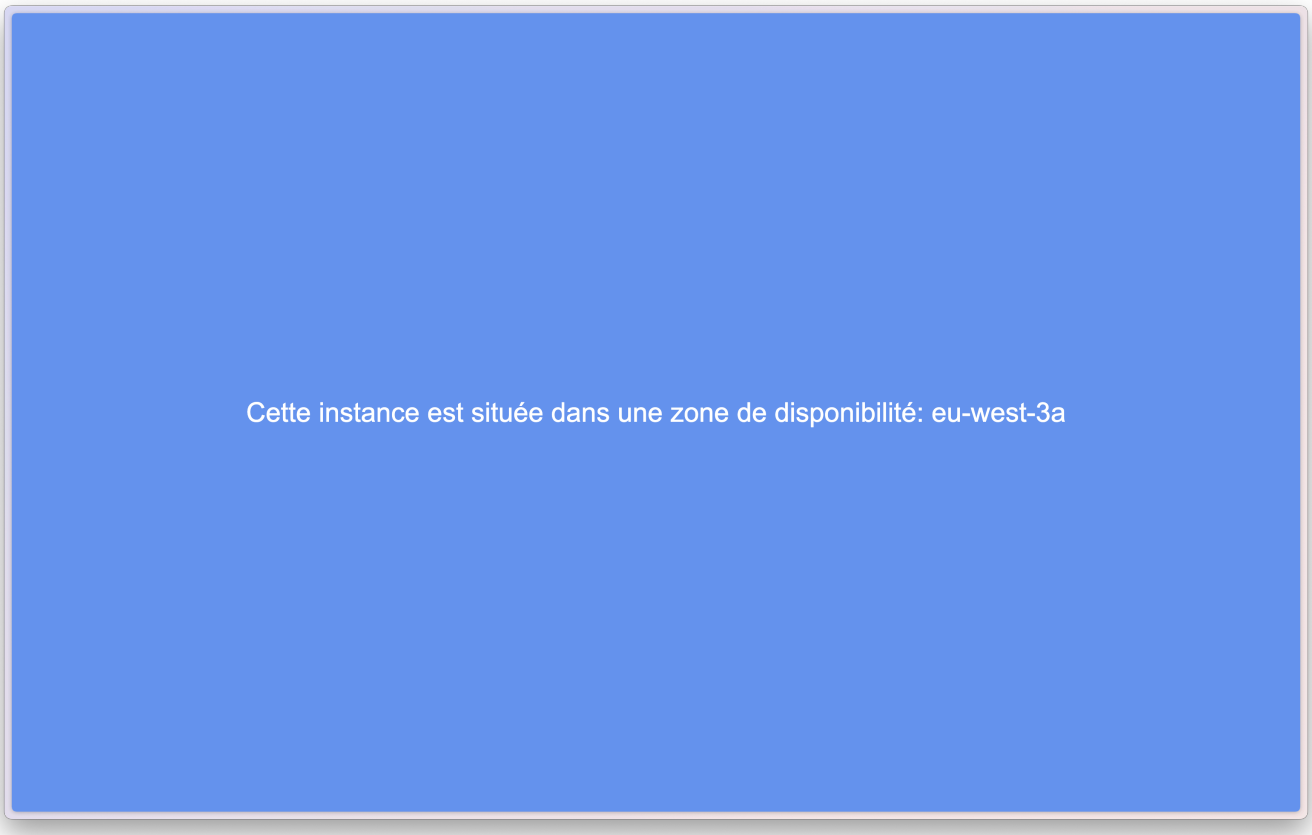




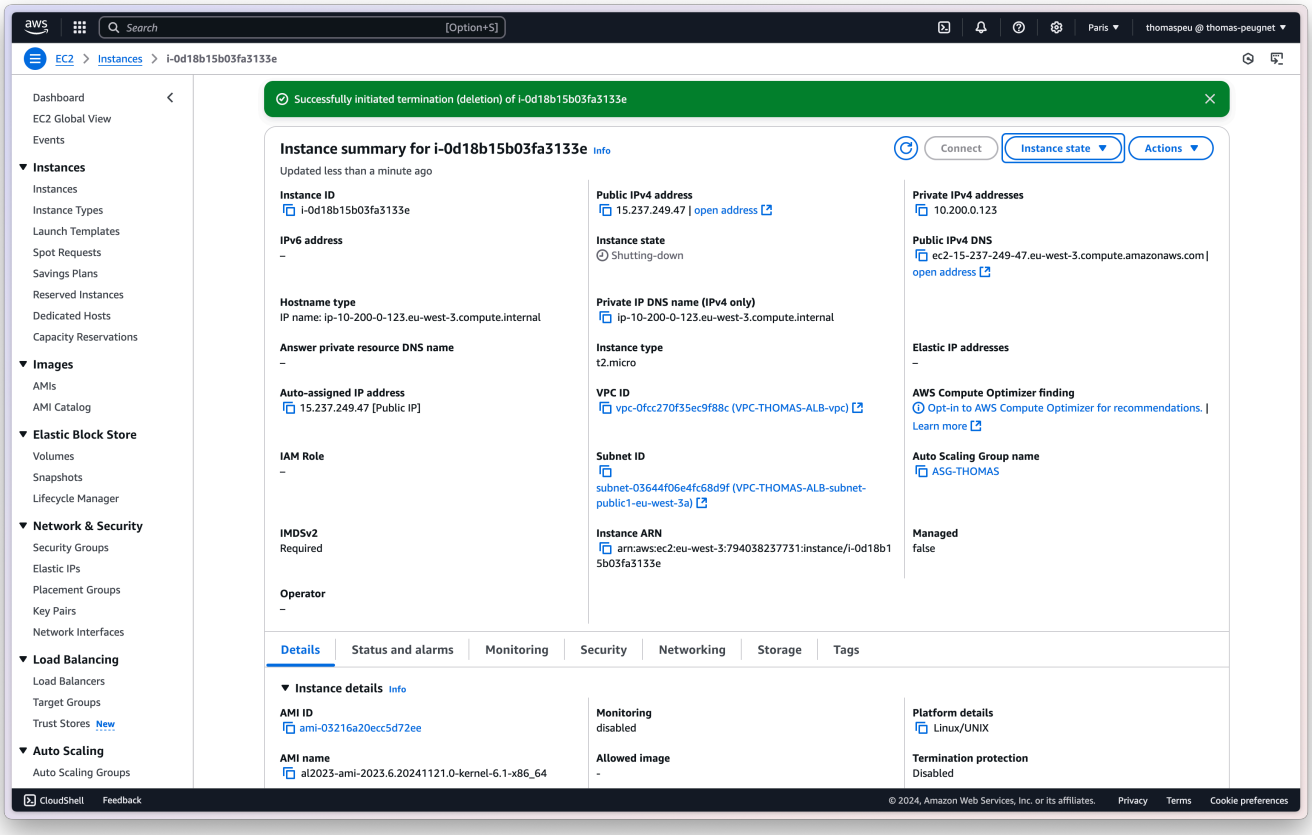
L'accès web est concuant également.



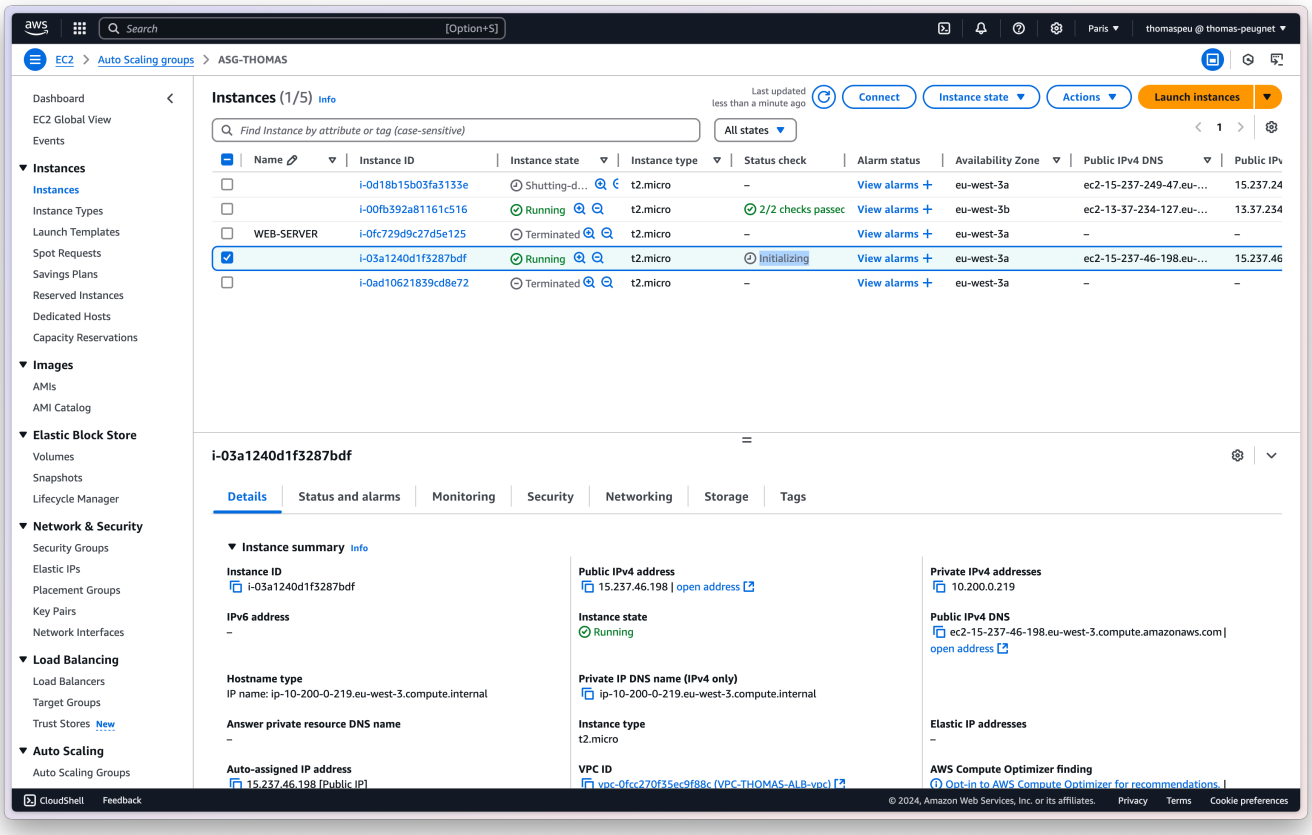
Idem pour l'accès web et le `nslookup` de la seconde instance.



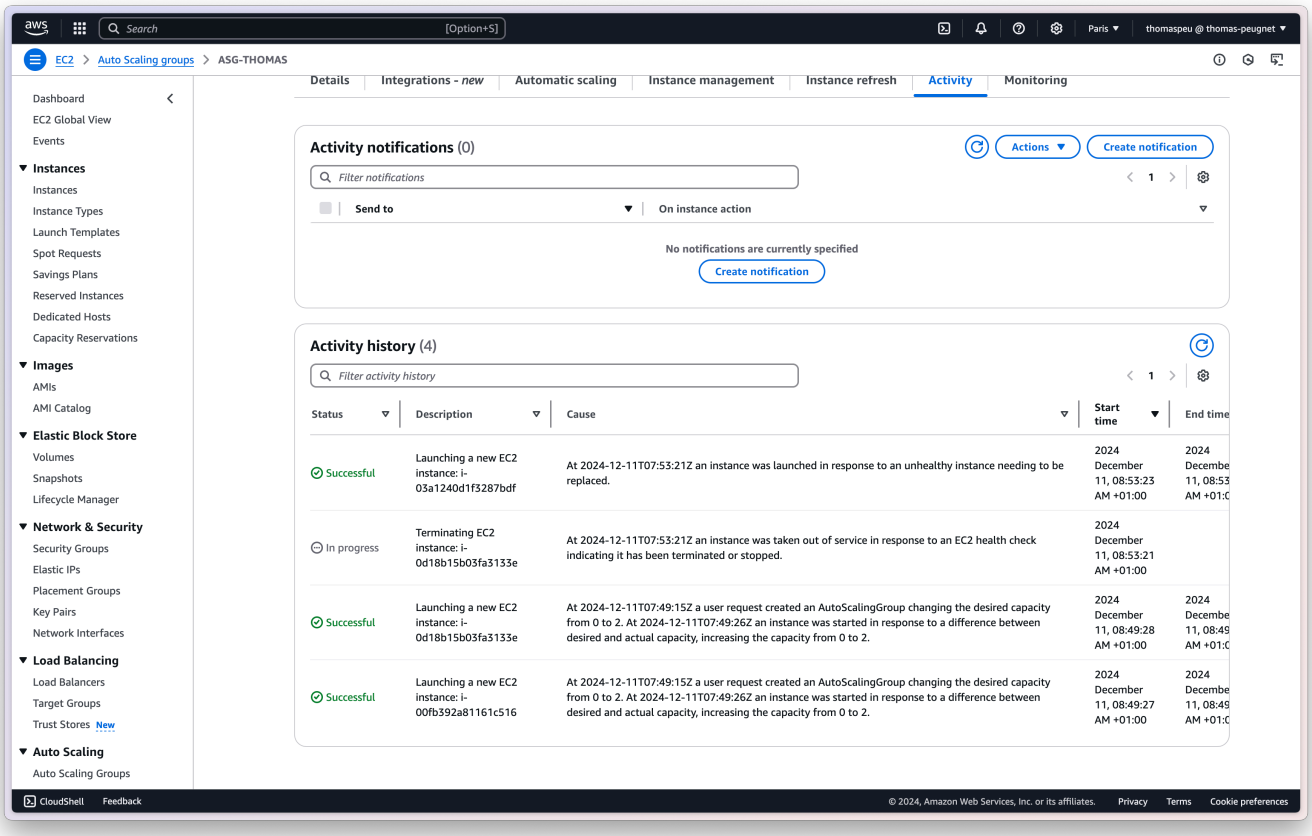
Nous supprimons l'instance.



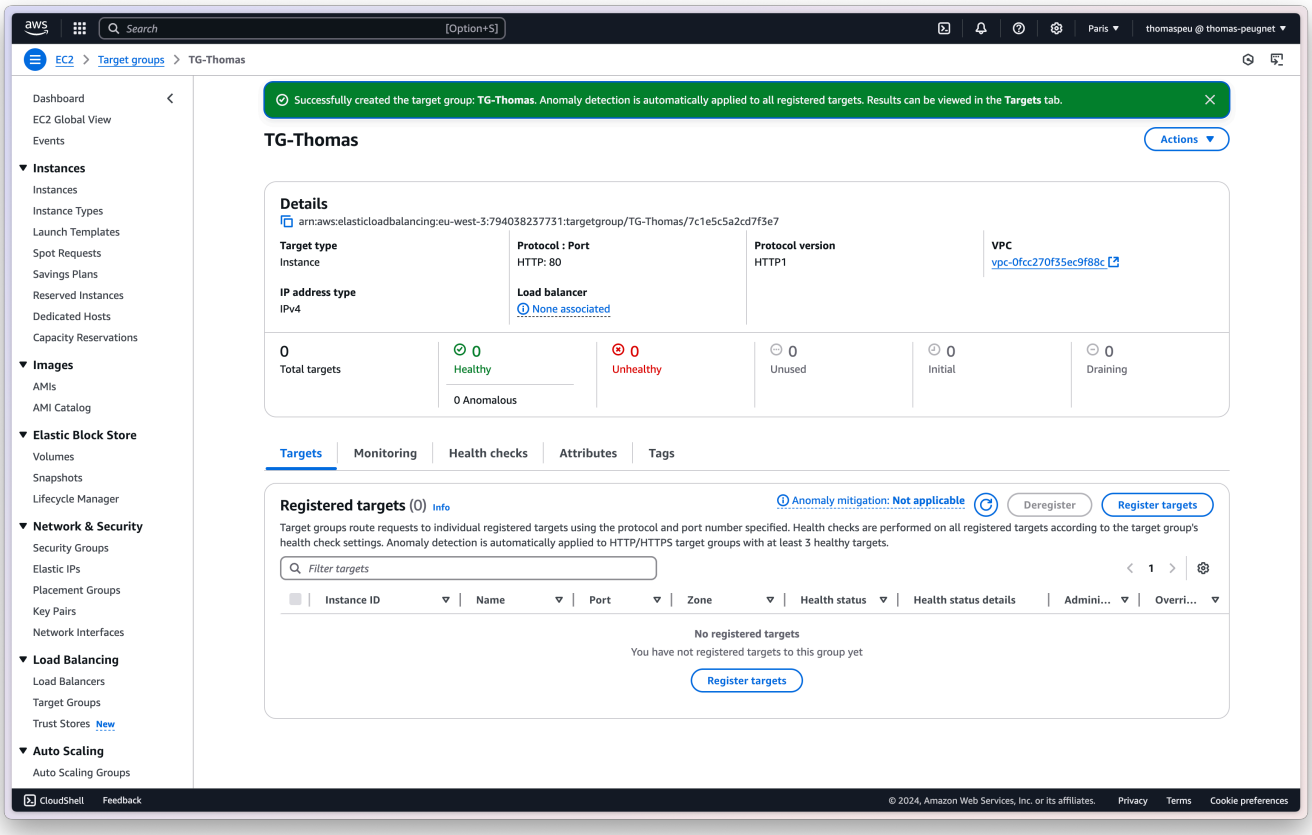
Nous constatons que l'auto scaling group la relance bien.



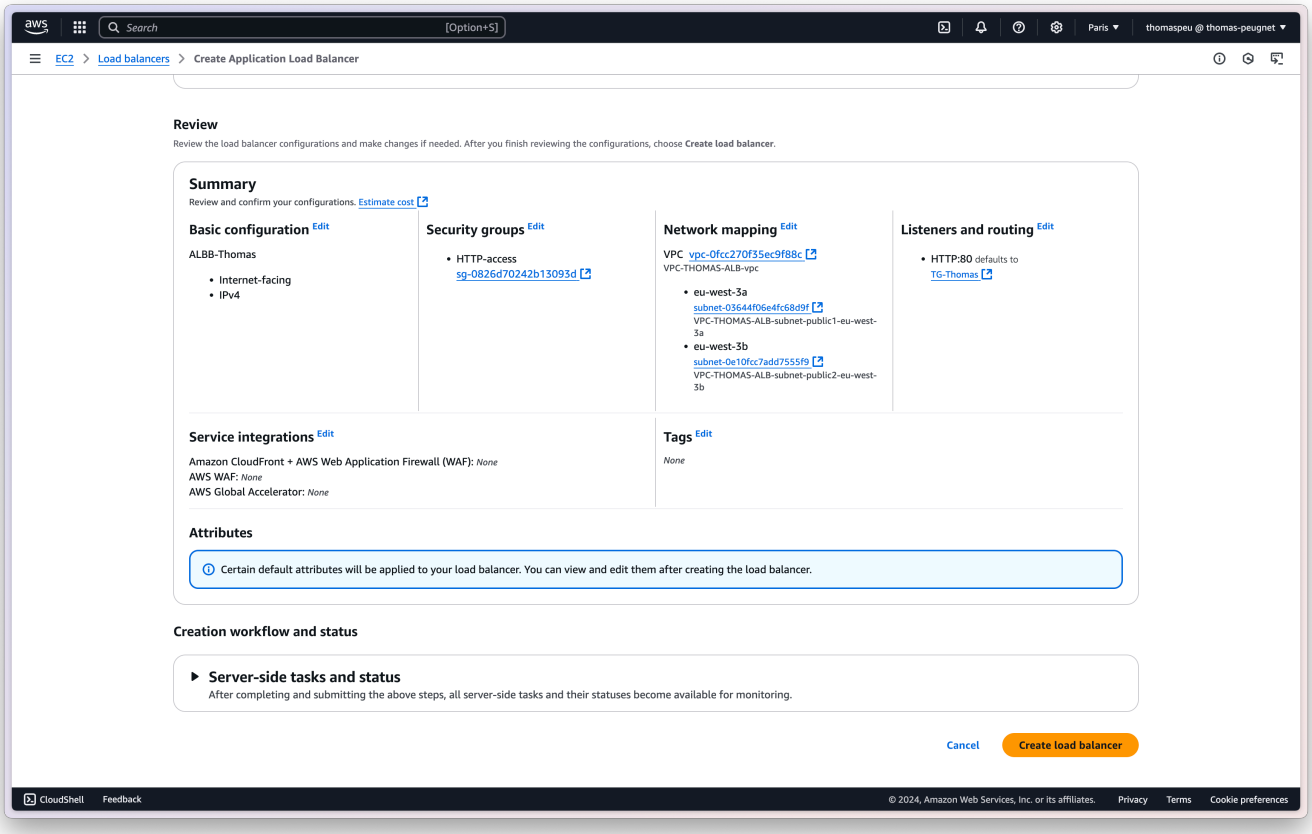
Ce processus est raccord avec les informations dans l'historique d'activité.

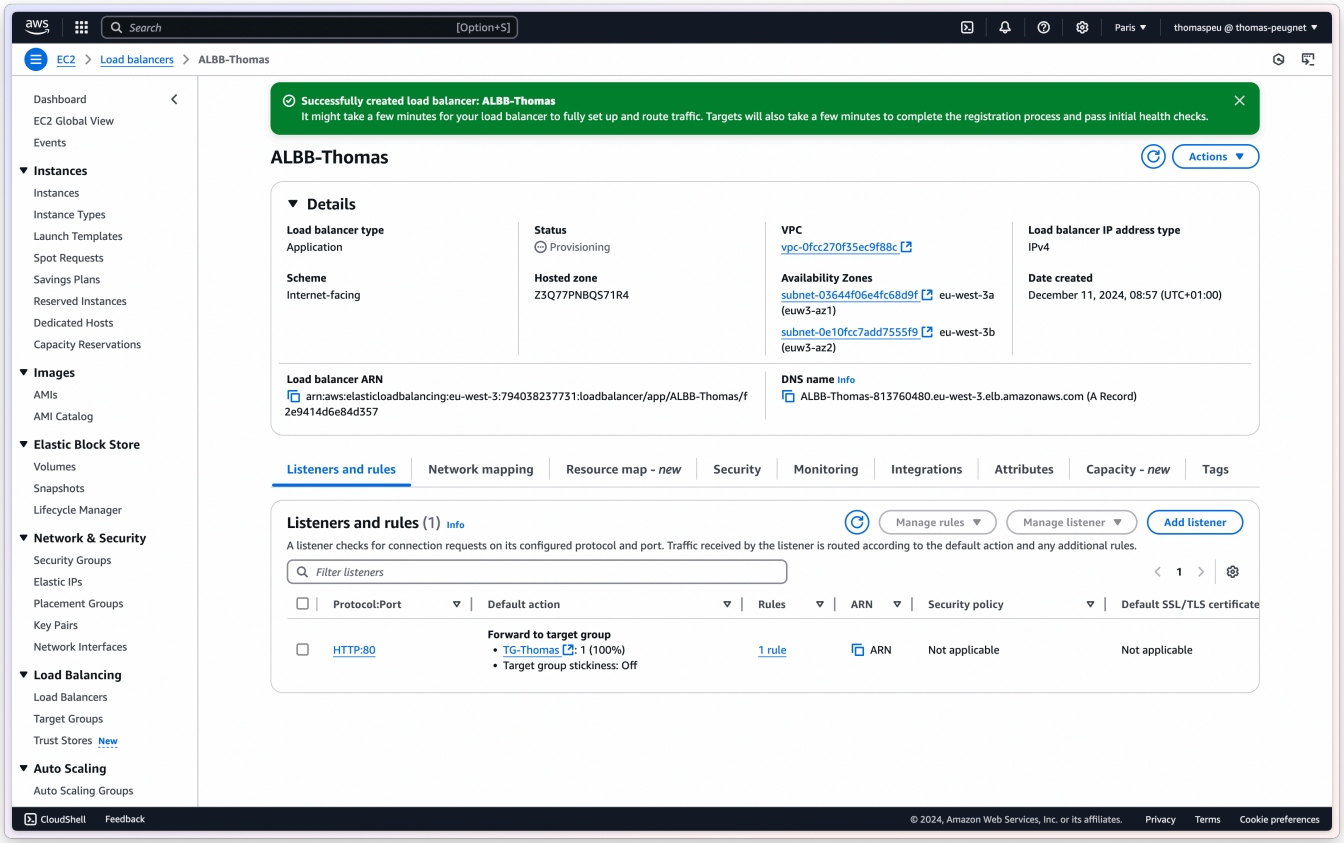


Nous créons un Target Group `TG-Thomas`.

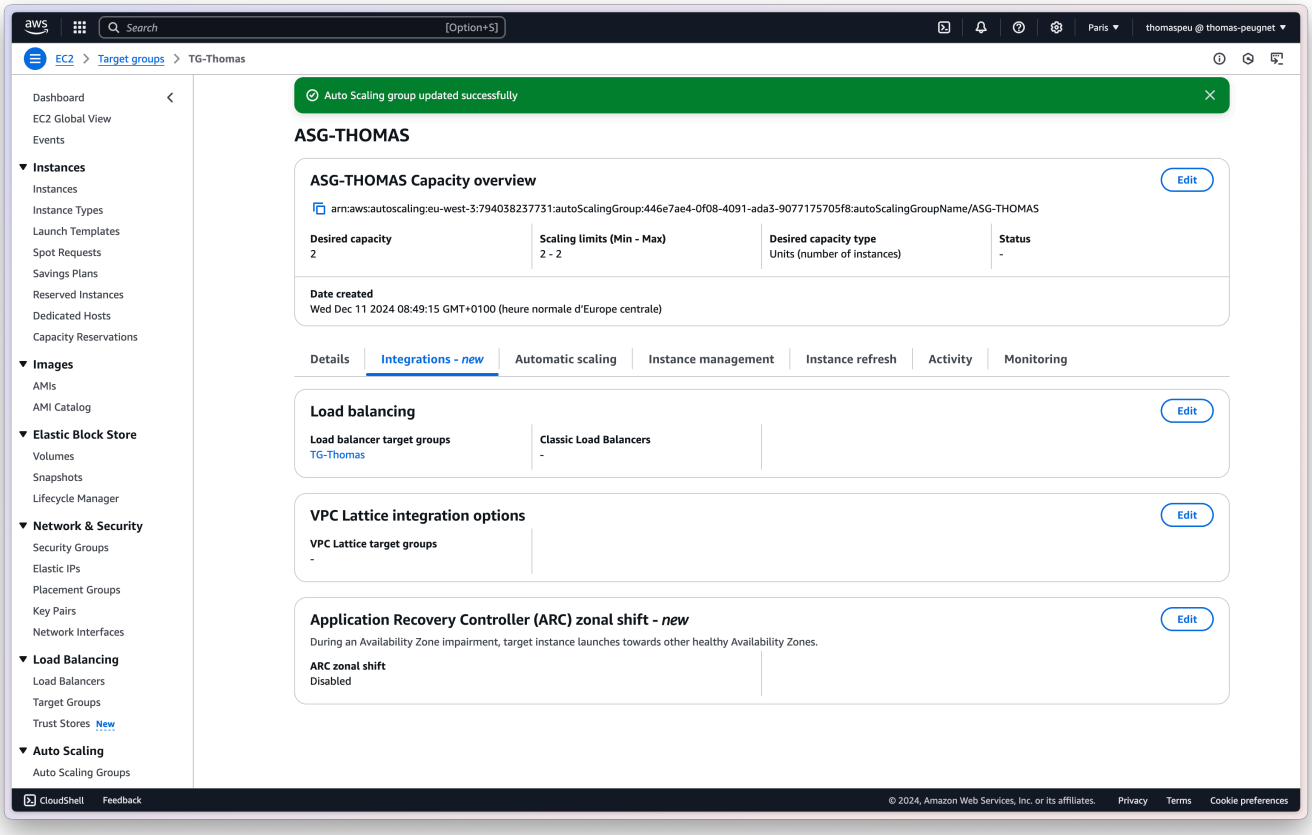


Nous créons un LoadBalancer `ALBB-Thomas`.

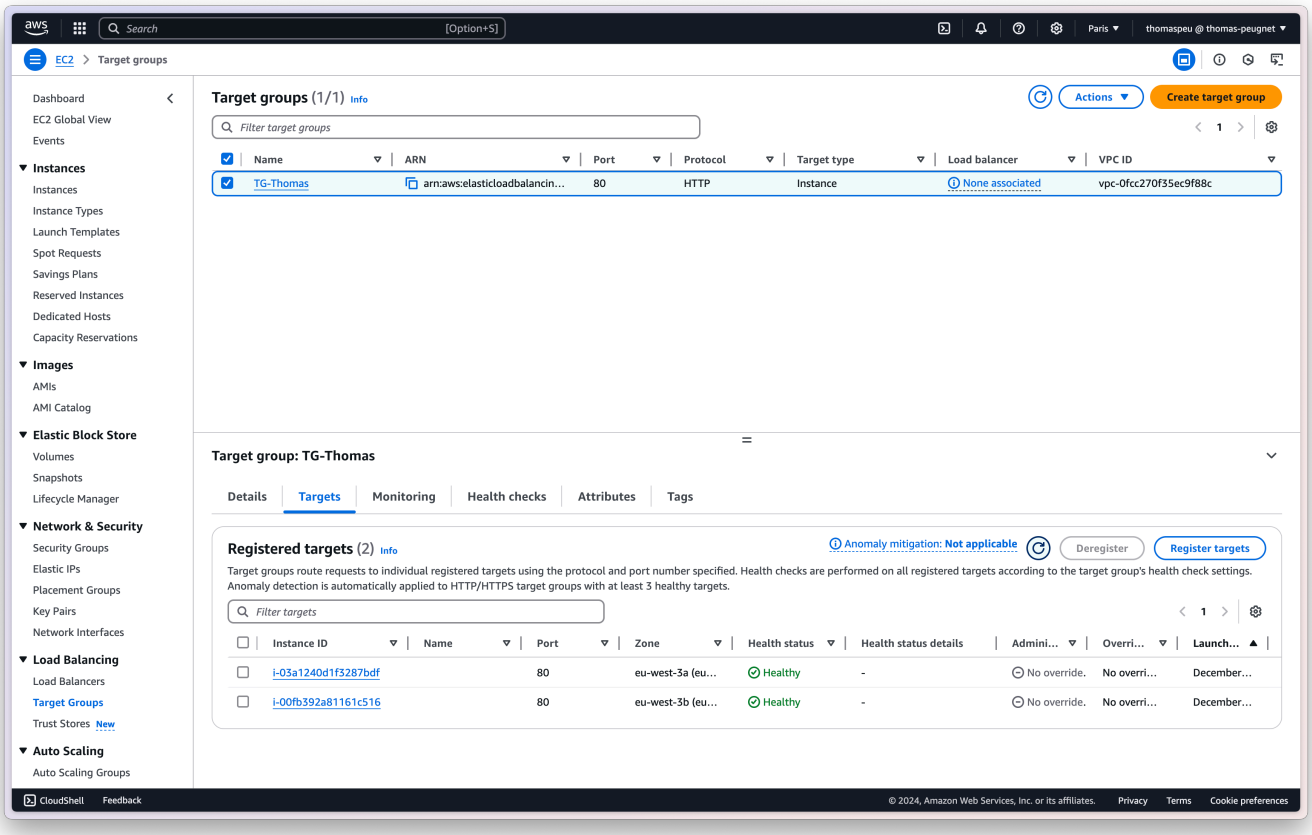




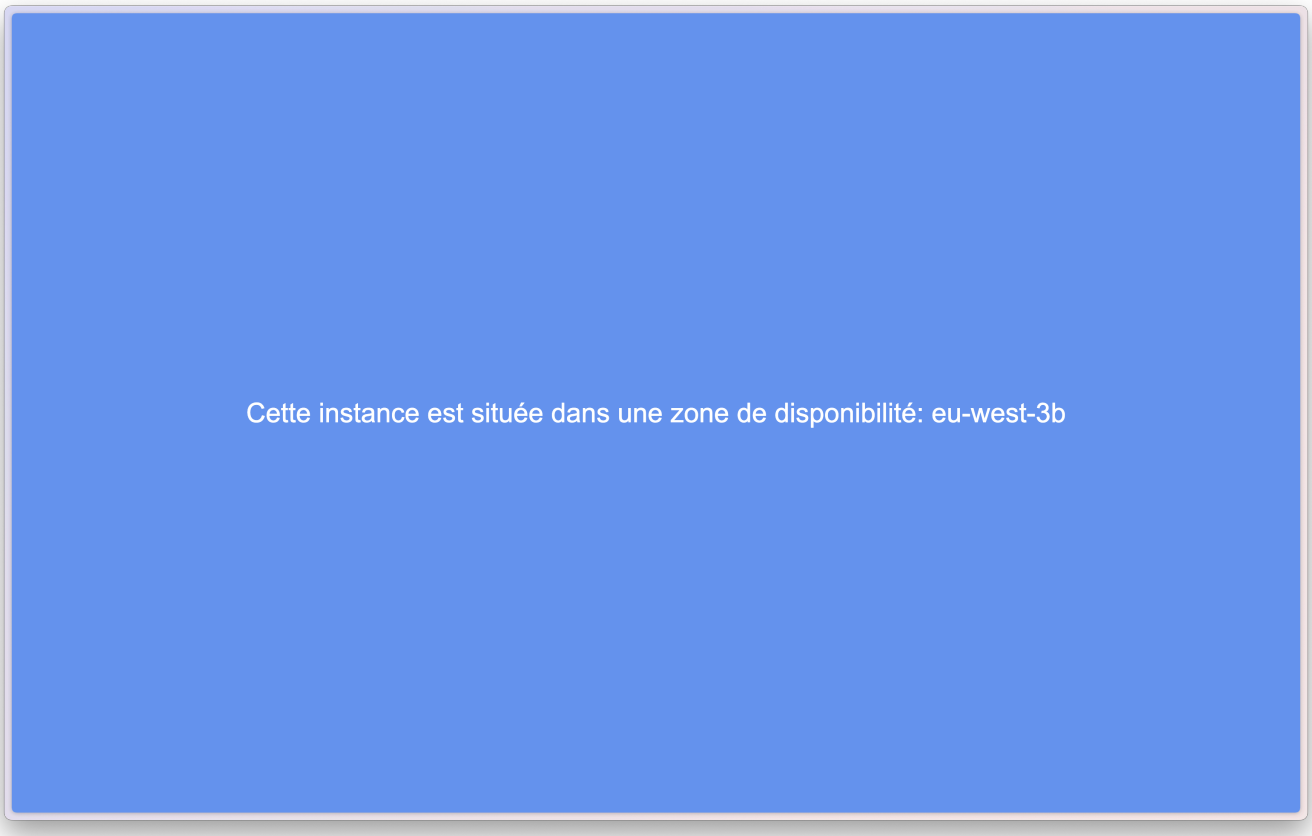
Nous assignons à notre Load Balancer notre Target Group.

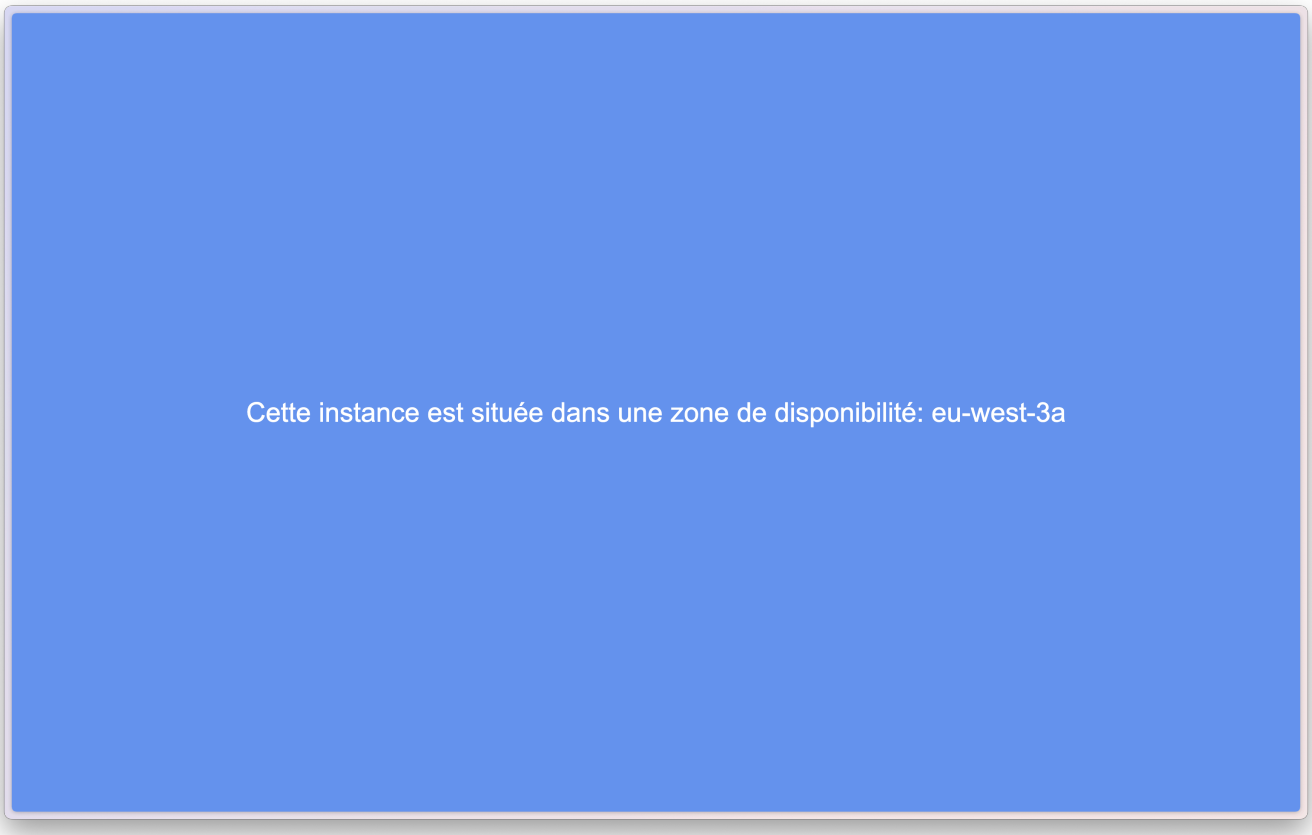


Nous pouvons voir nos targets enregistrées après quelques instants.

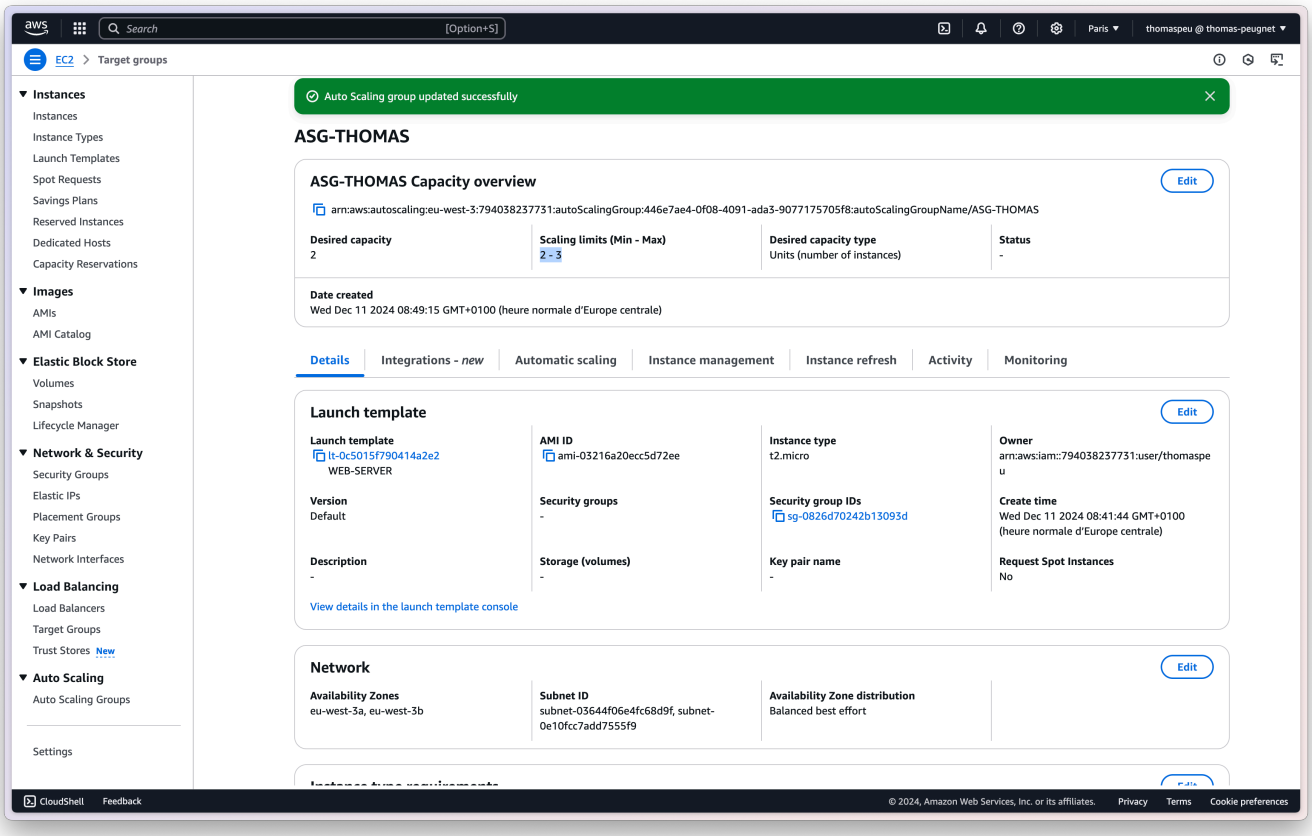


Nous pouvons constater un changement de zone à chaque rafraîchissement.

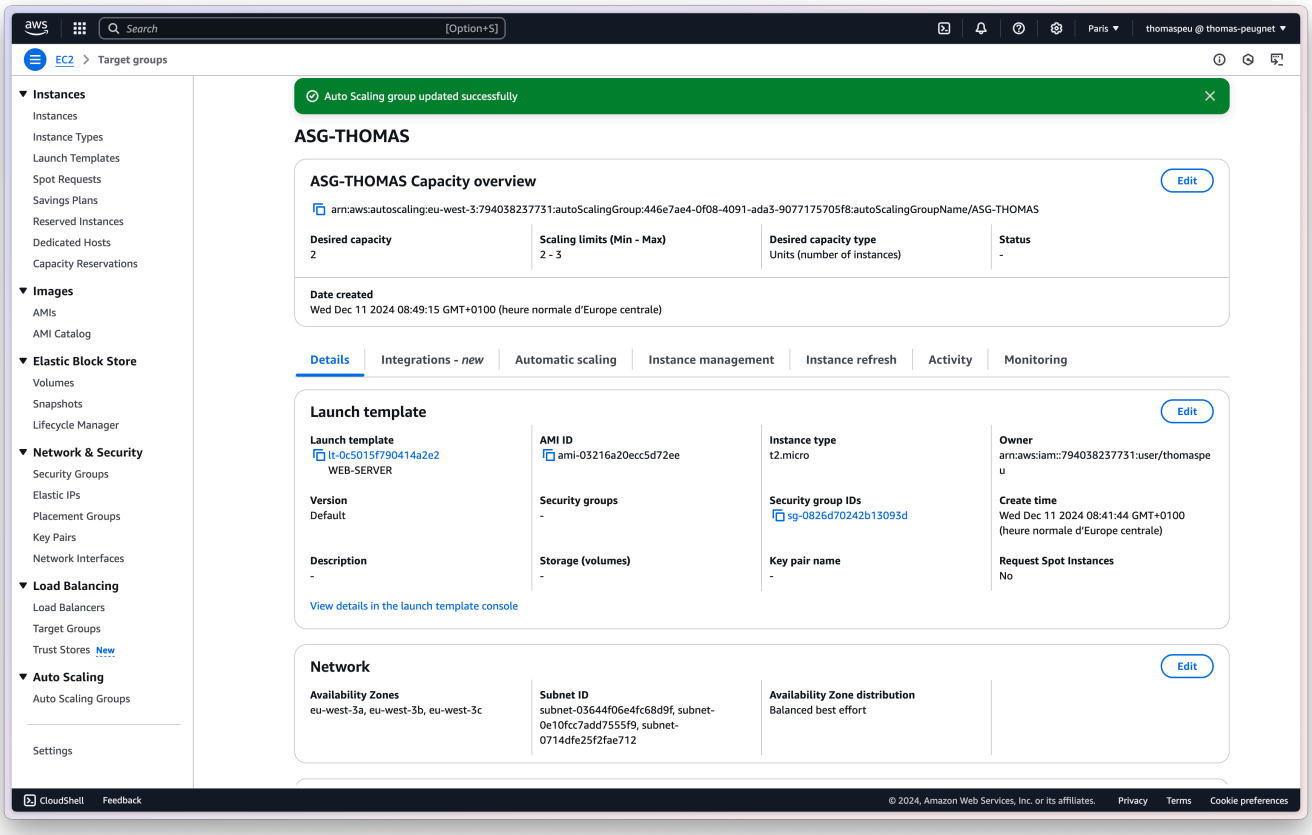




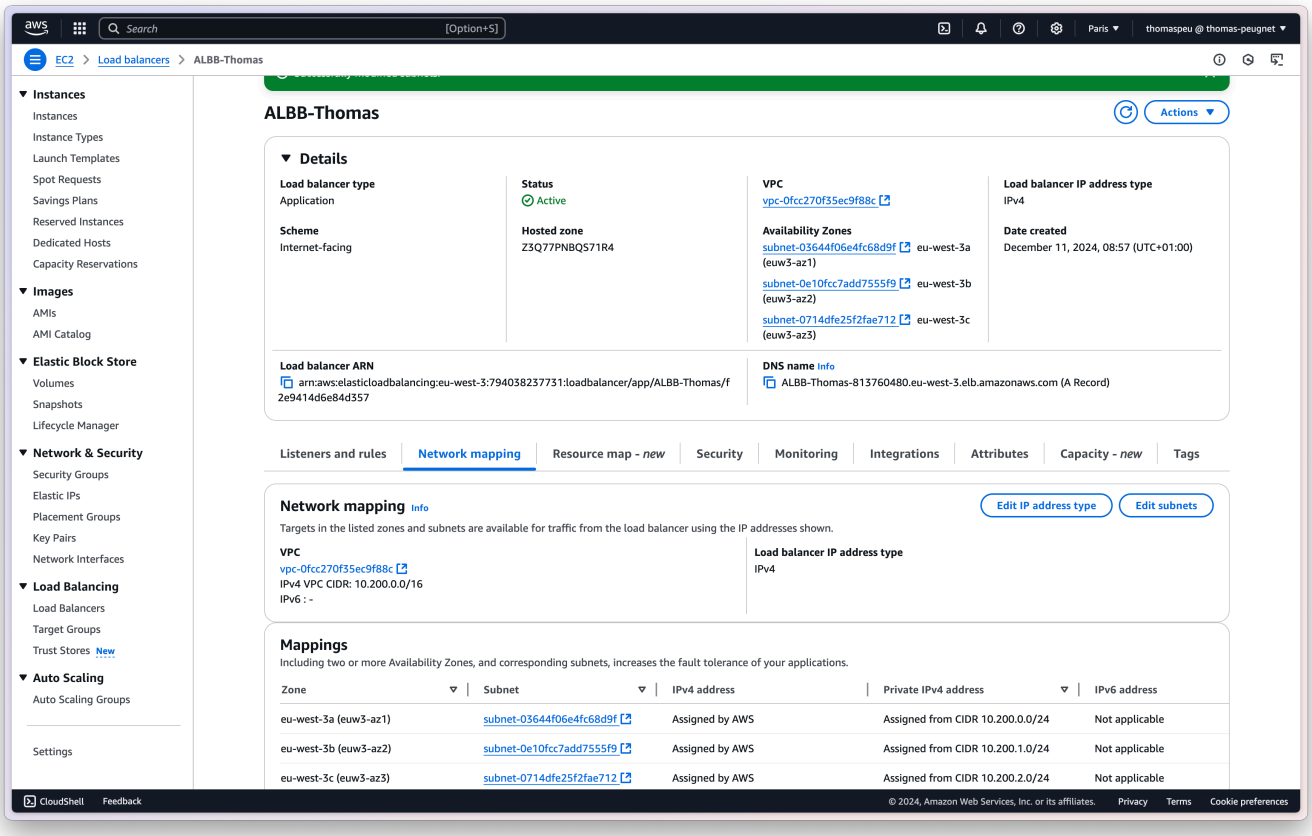
Nous mettons à jour notre Scaling Limit.



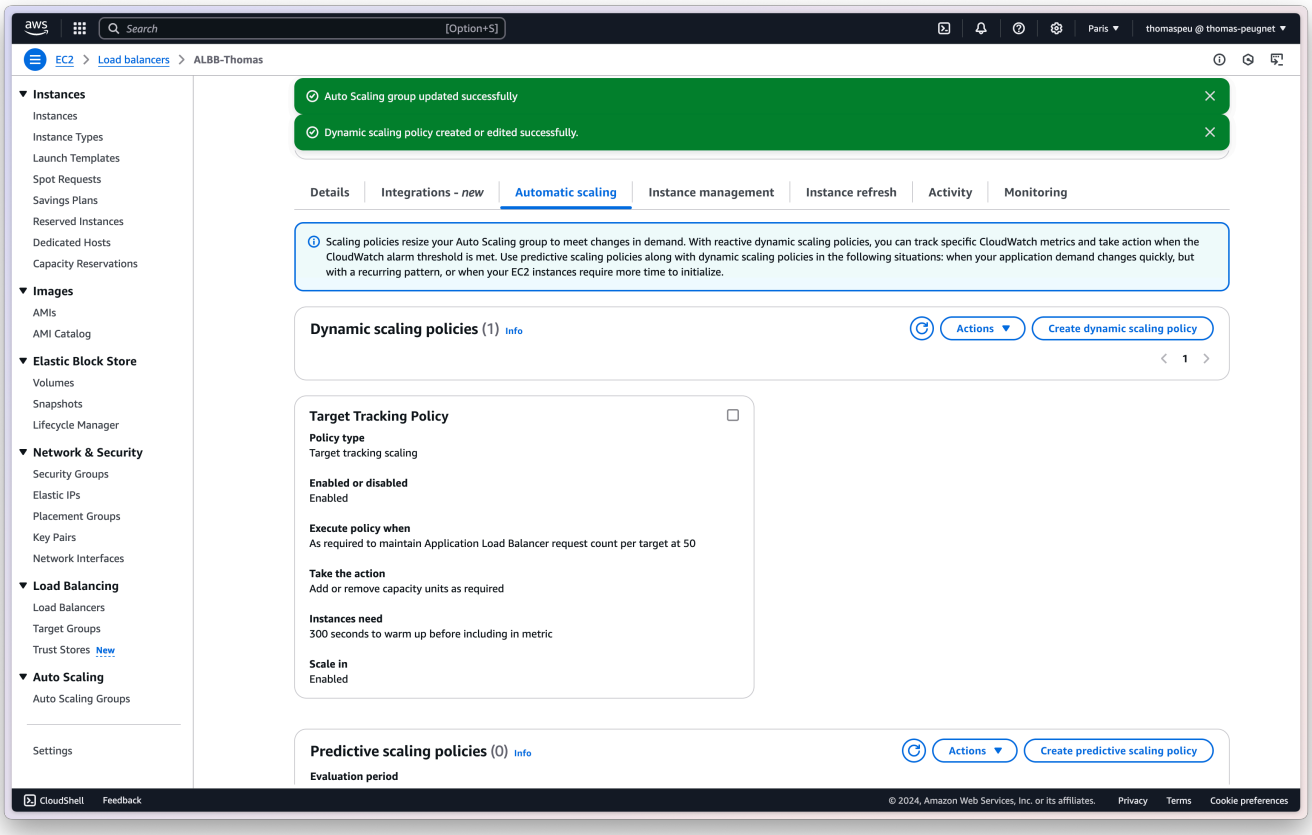
Nous ajoutons notre Subnet à notre ASG.



Nous ajoutons notre subnet à notre ALB.



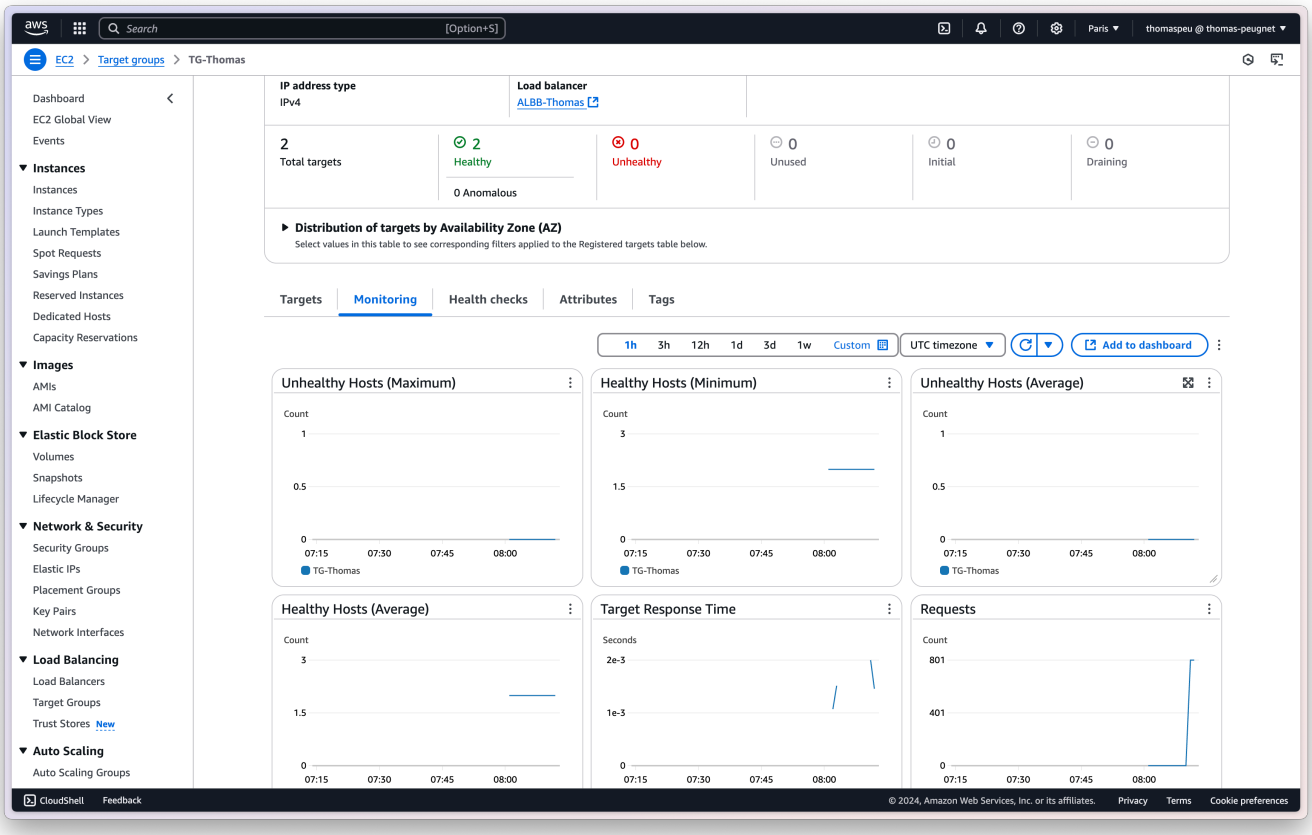
Nous créons notre Automatic Scaling Policy.



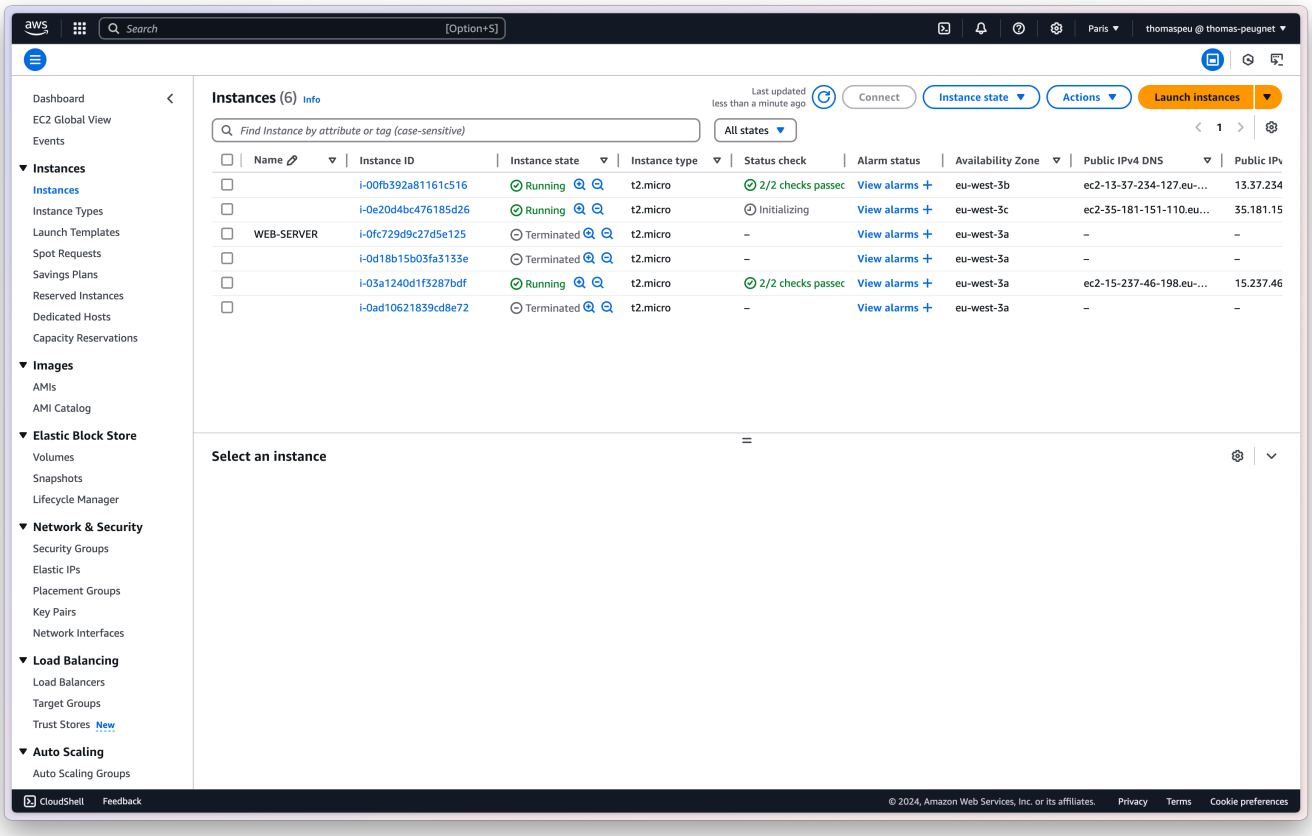
Nous préparons une boucle shell pour intérroger notre ALB.

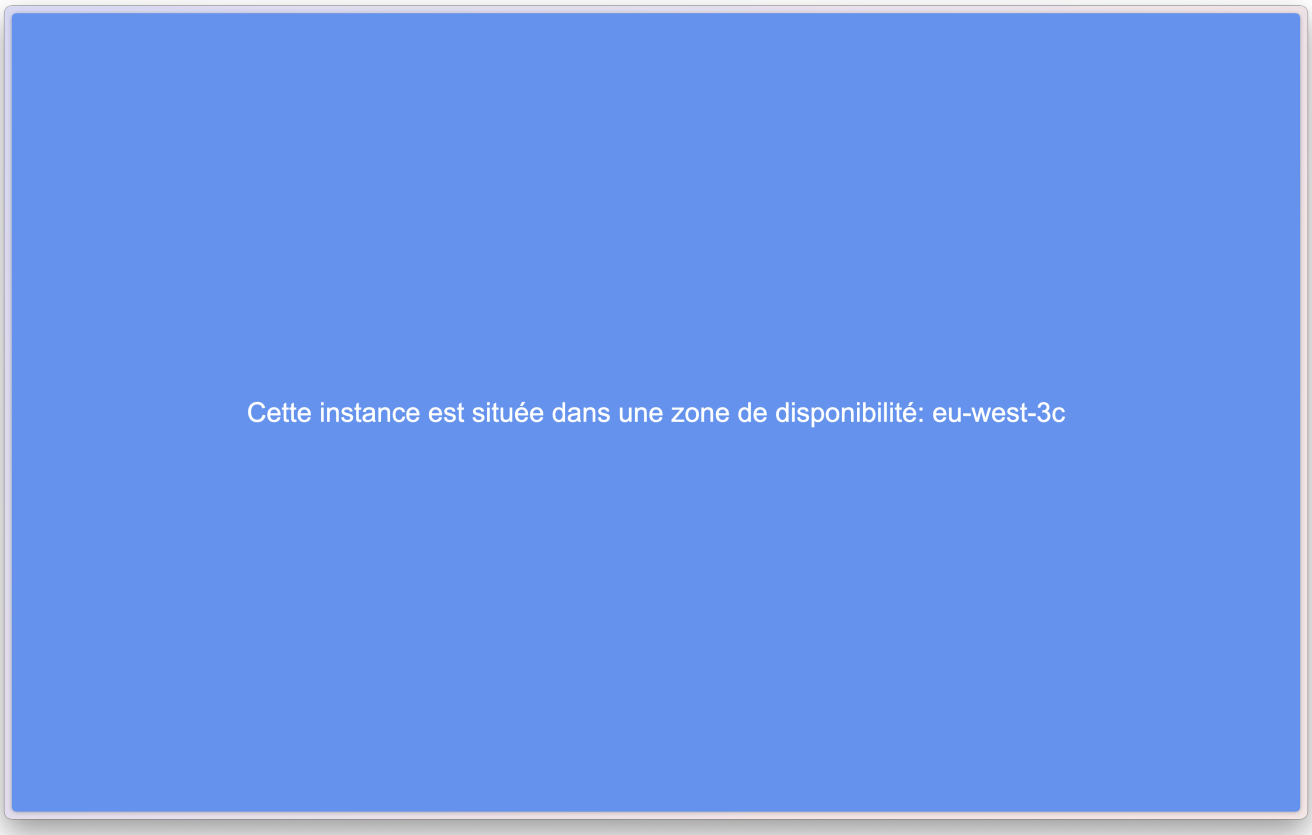
```
for i in {1..200}; do curl ALBB-Thomas-813760480.eu-west-3.elb.amazonaws.com & done;
wait
```

Nous constatons un pic de requêtes.

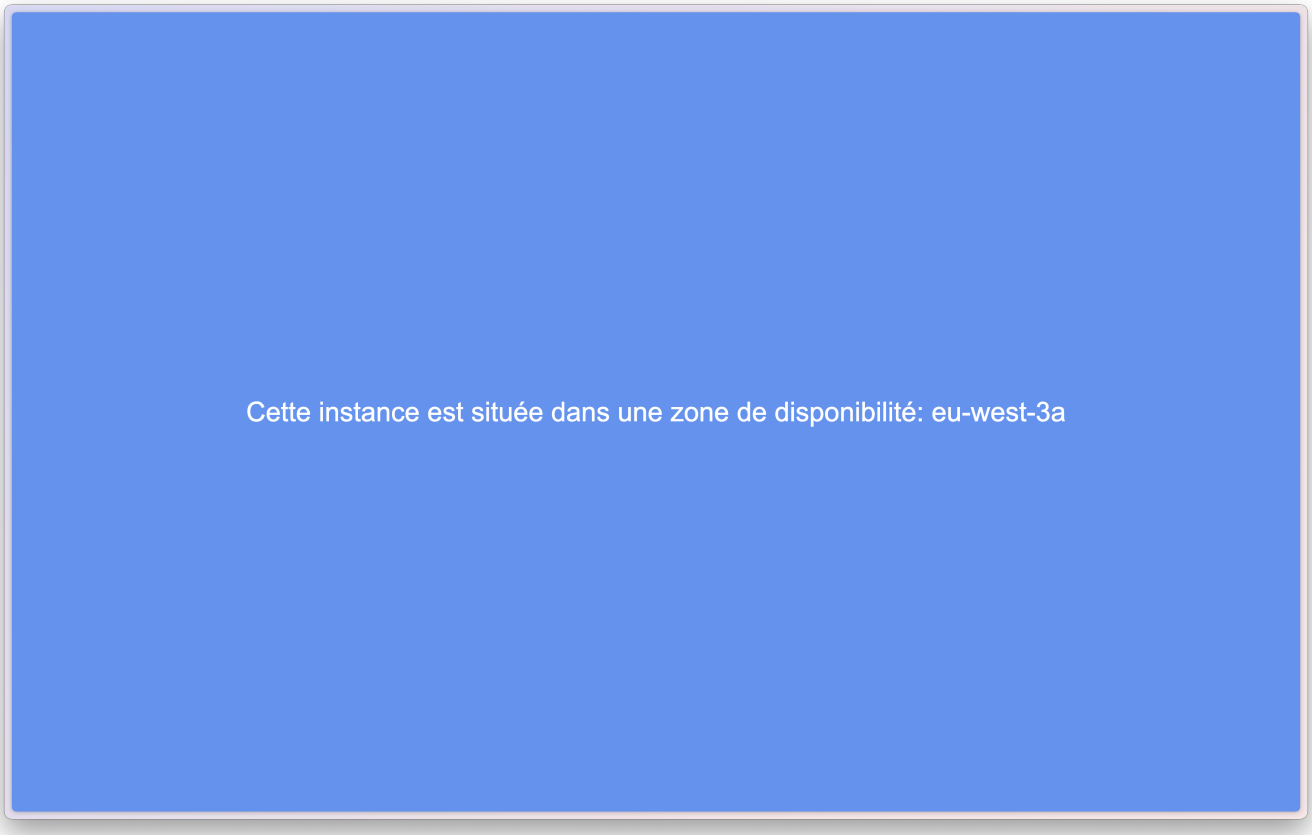


Nous constatons en effet l'arrivée sur la zone numéro 3 après lancement de la 3e instance.

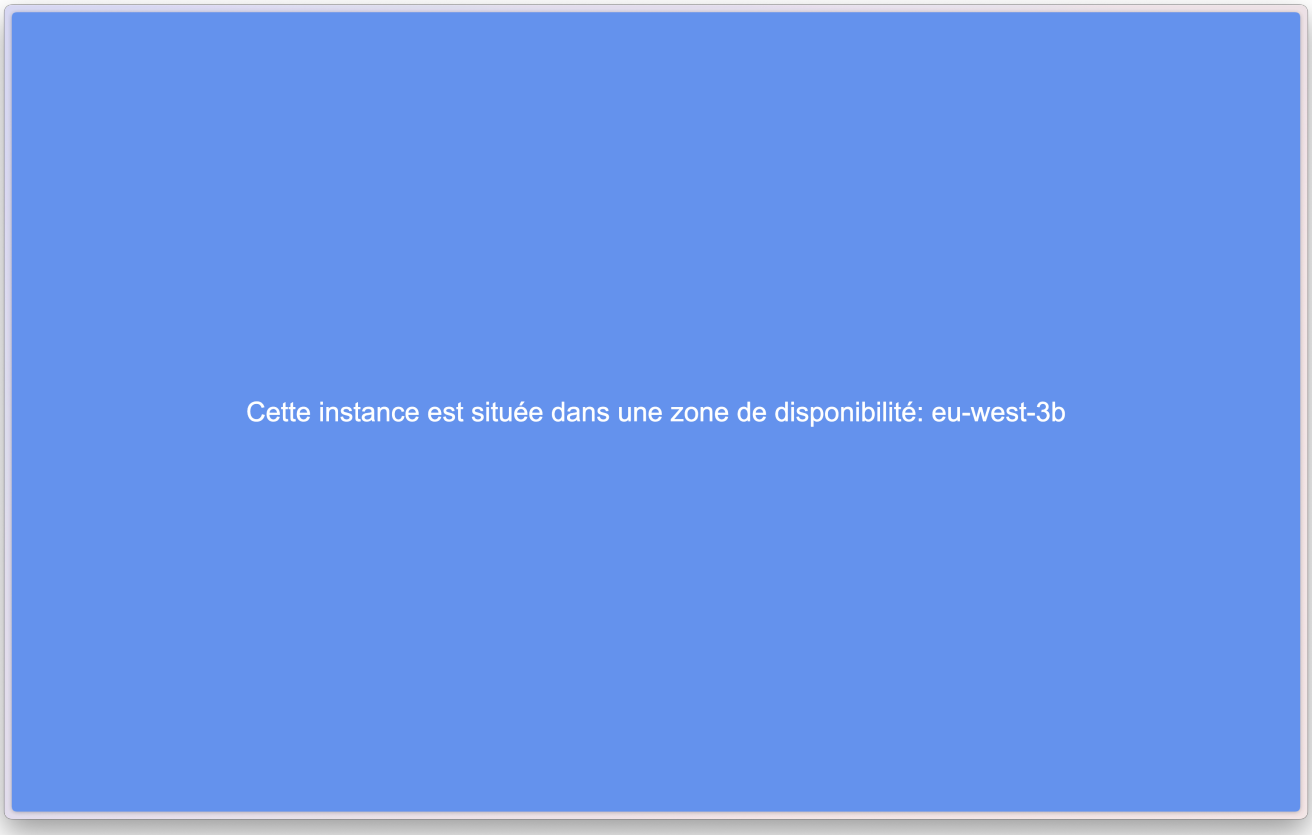




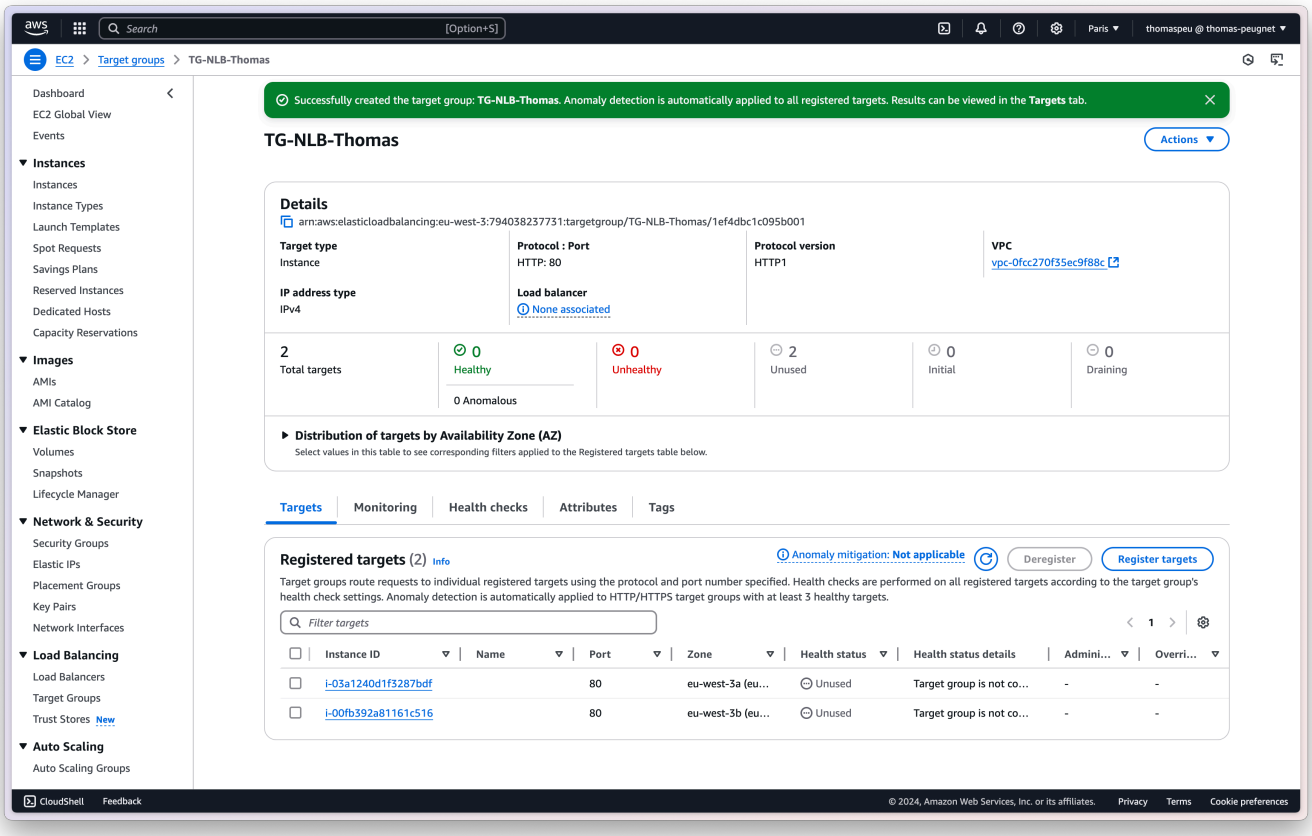
Nous nous rendons à l'adresse de l'instance numéro 1.



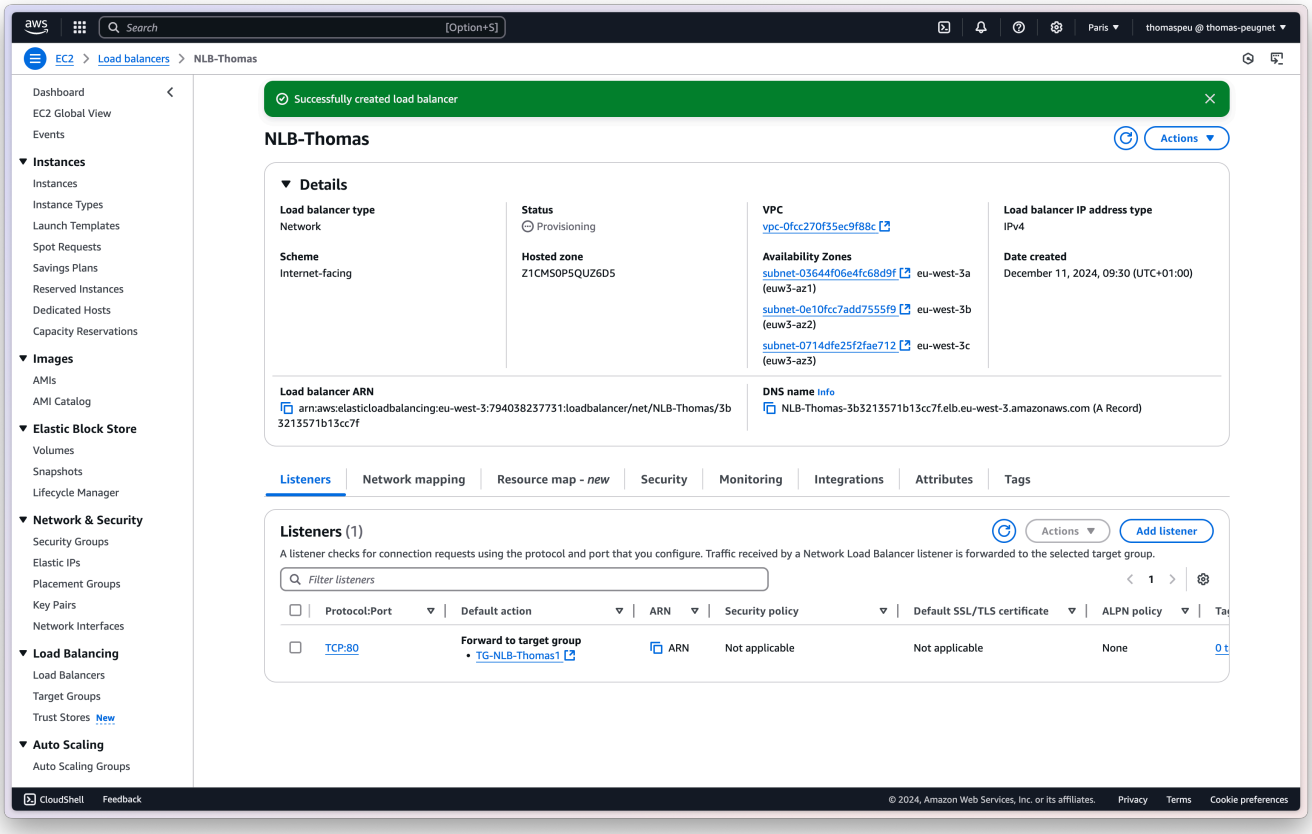
Nous nous rendons à l'adresse de l'instance numéro 2.



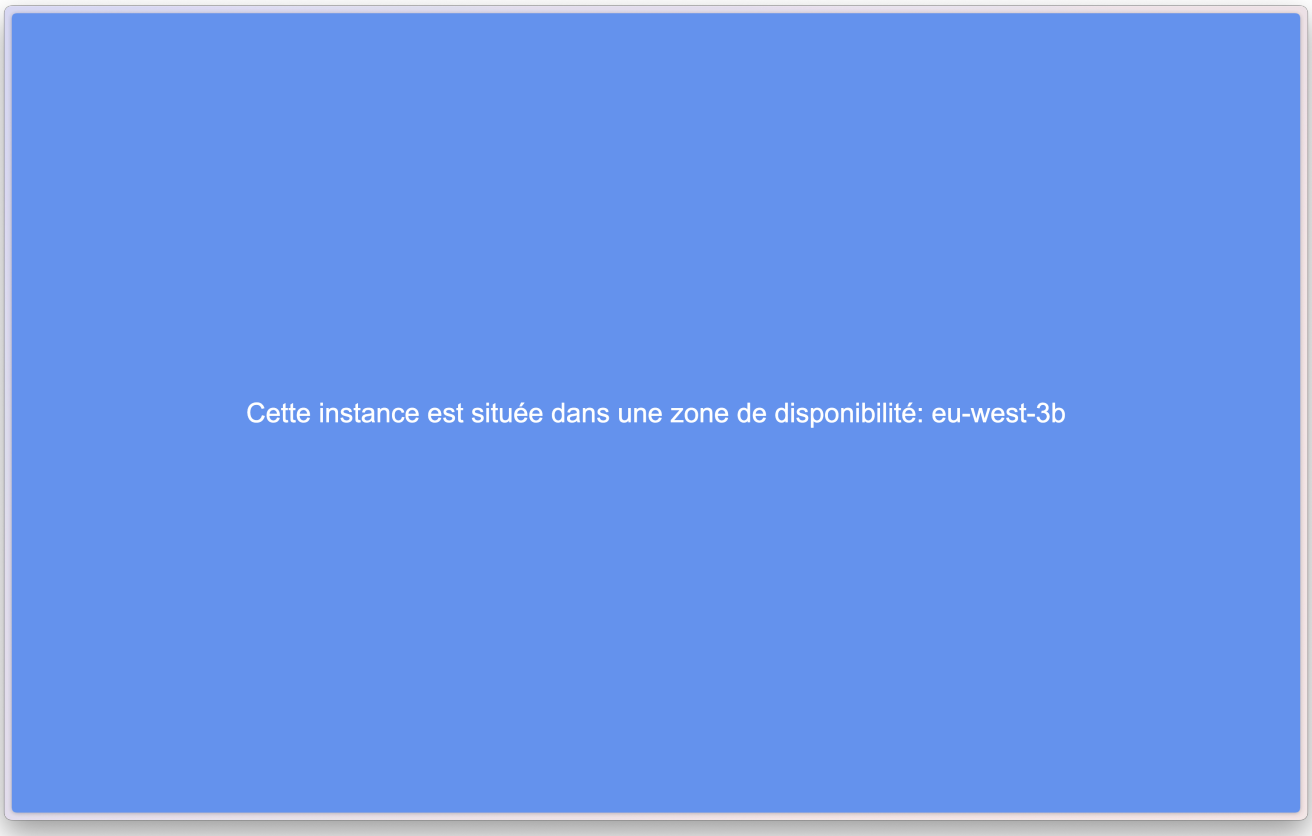
Nous créons un Target Group `TG-NLB-Thomas`.



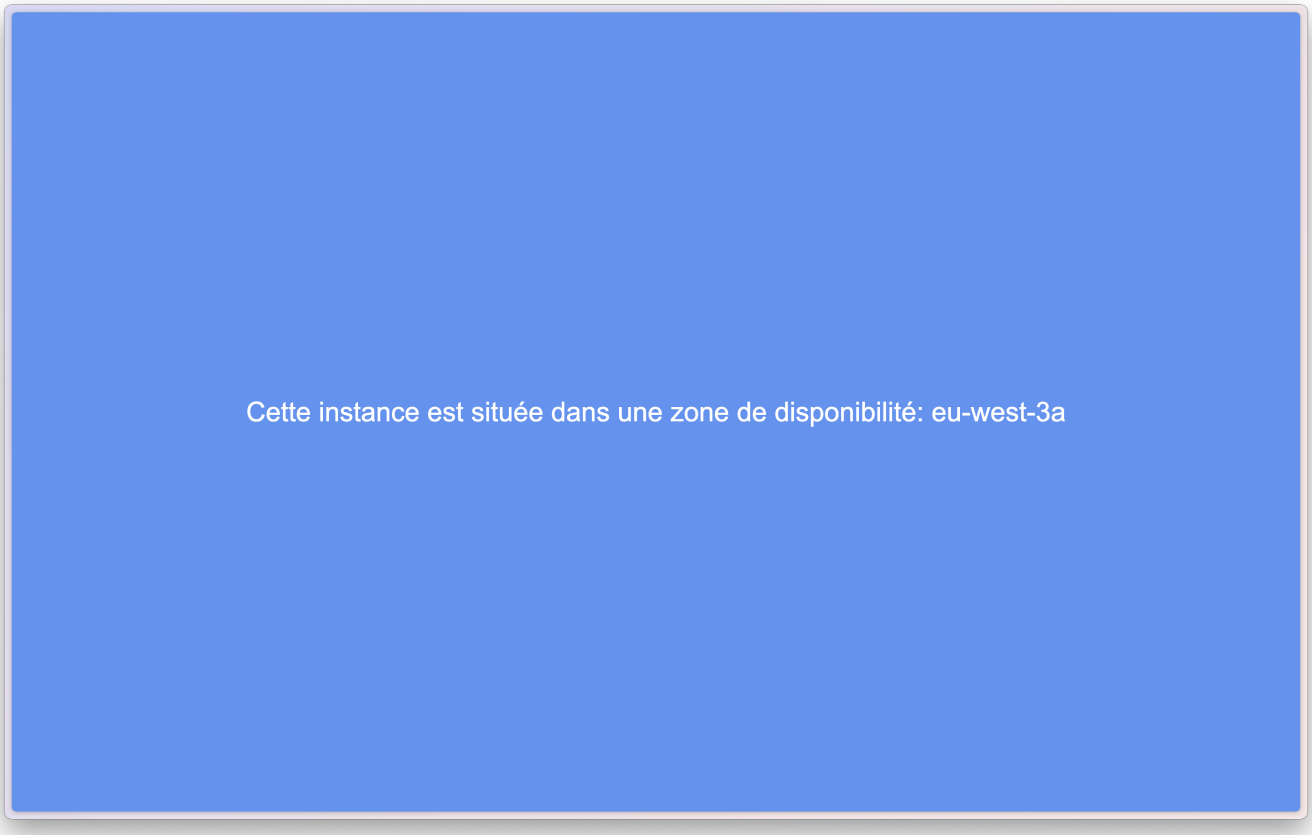
Nous créons notre NLB `NLB-Thomas`.



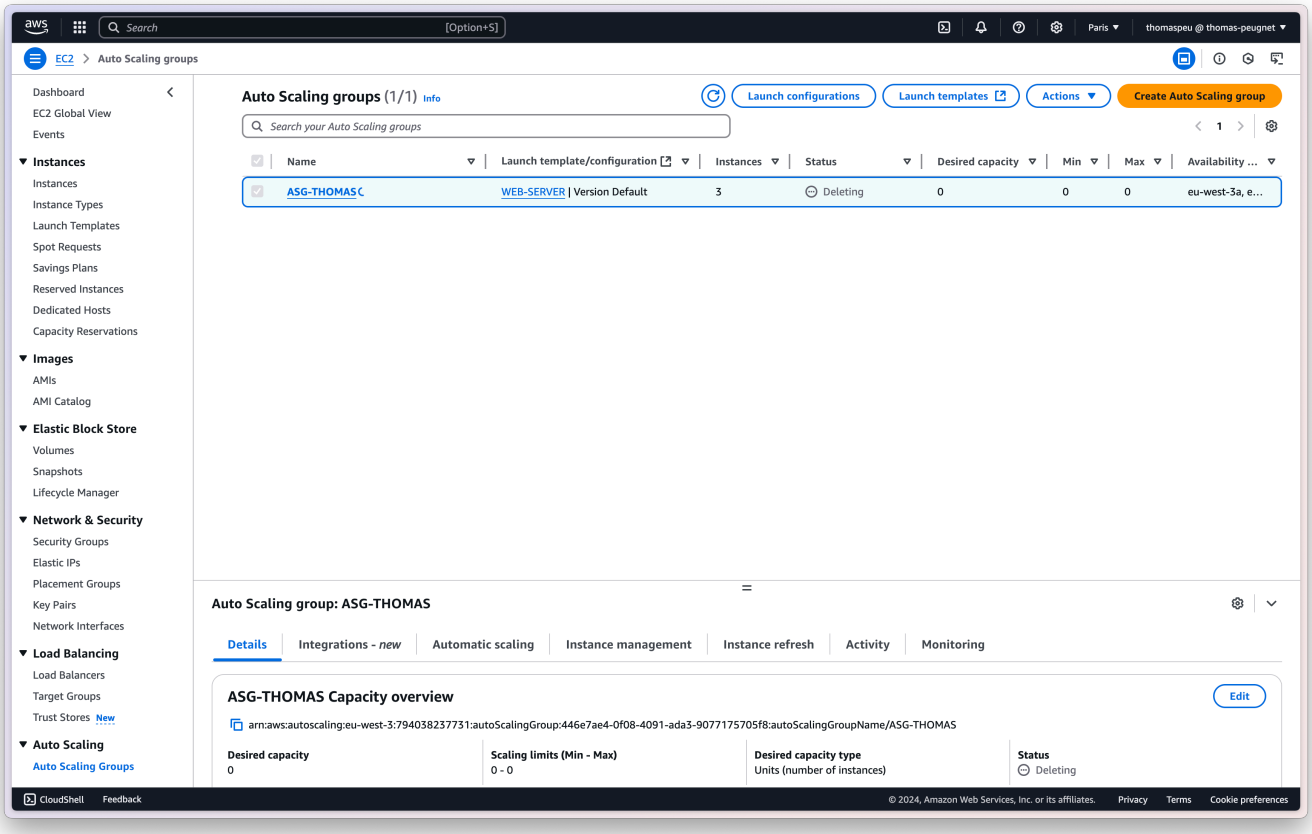
En mettant l'adresse du NLB, on obtient en effet la zone 1.



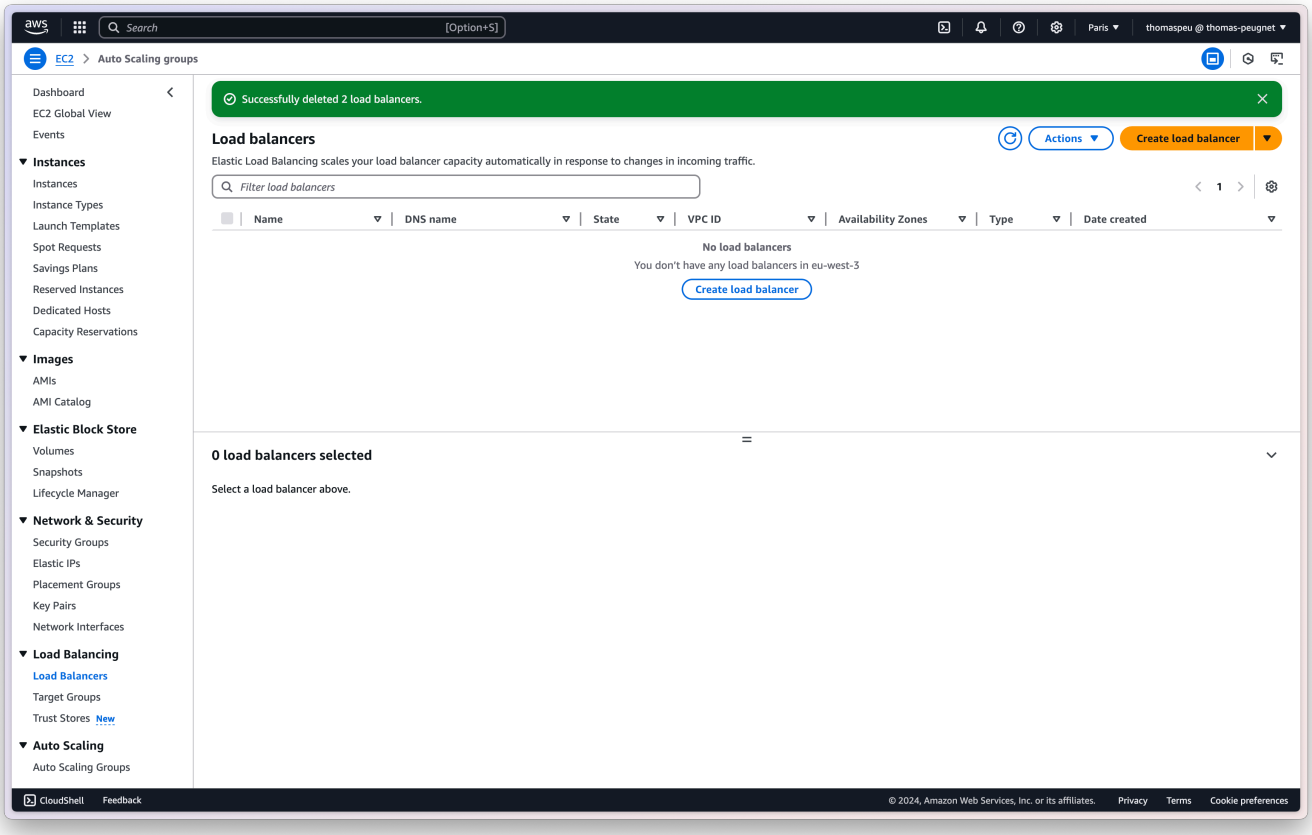
Depuis une fenêtre de navigation privée, après quelques rafraîchissement nous obtenons enfin la zone numéro 2.



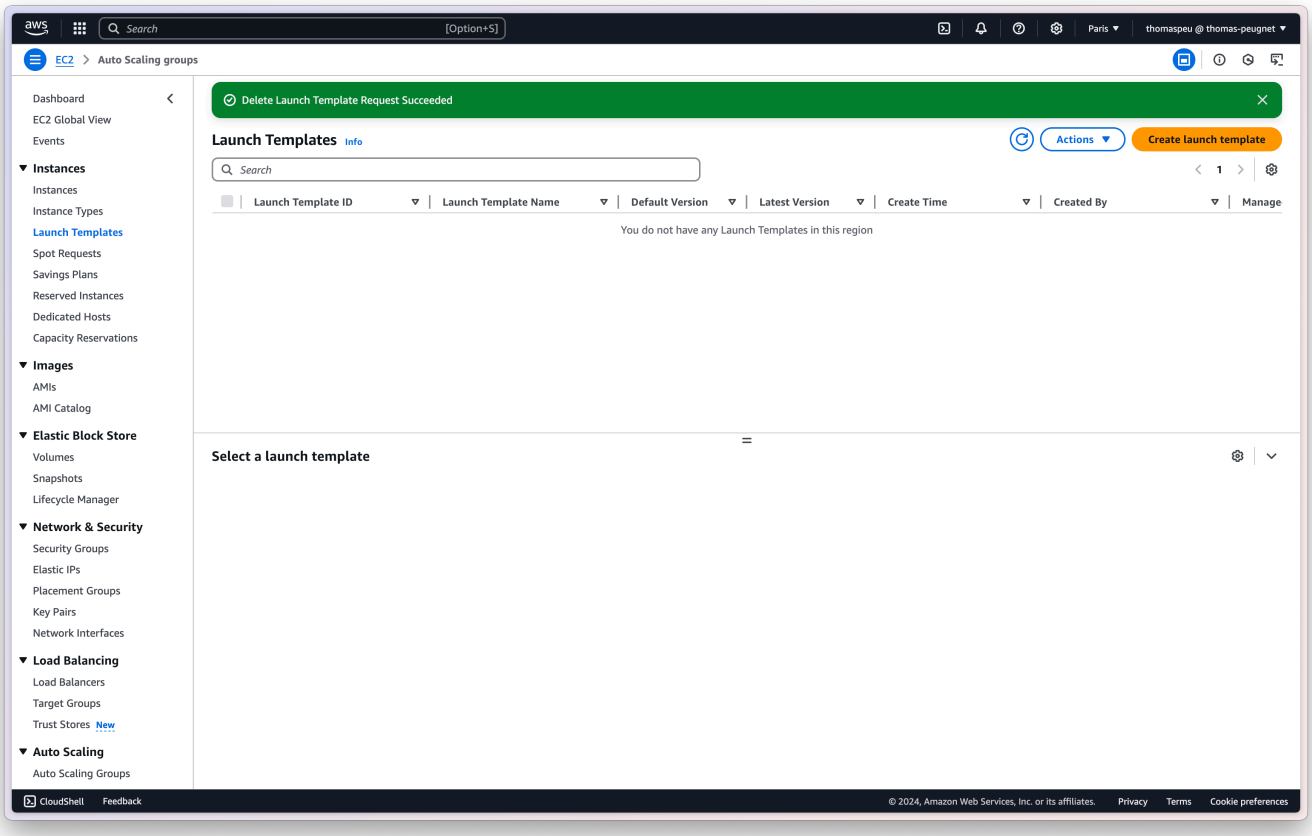
Nous supprimons notre ASG.



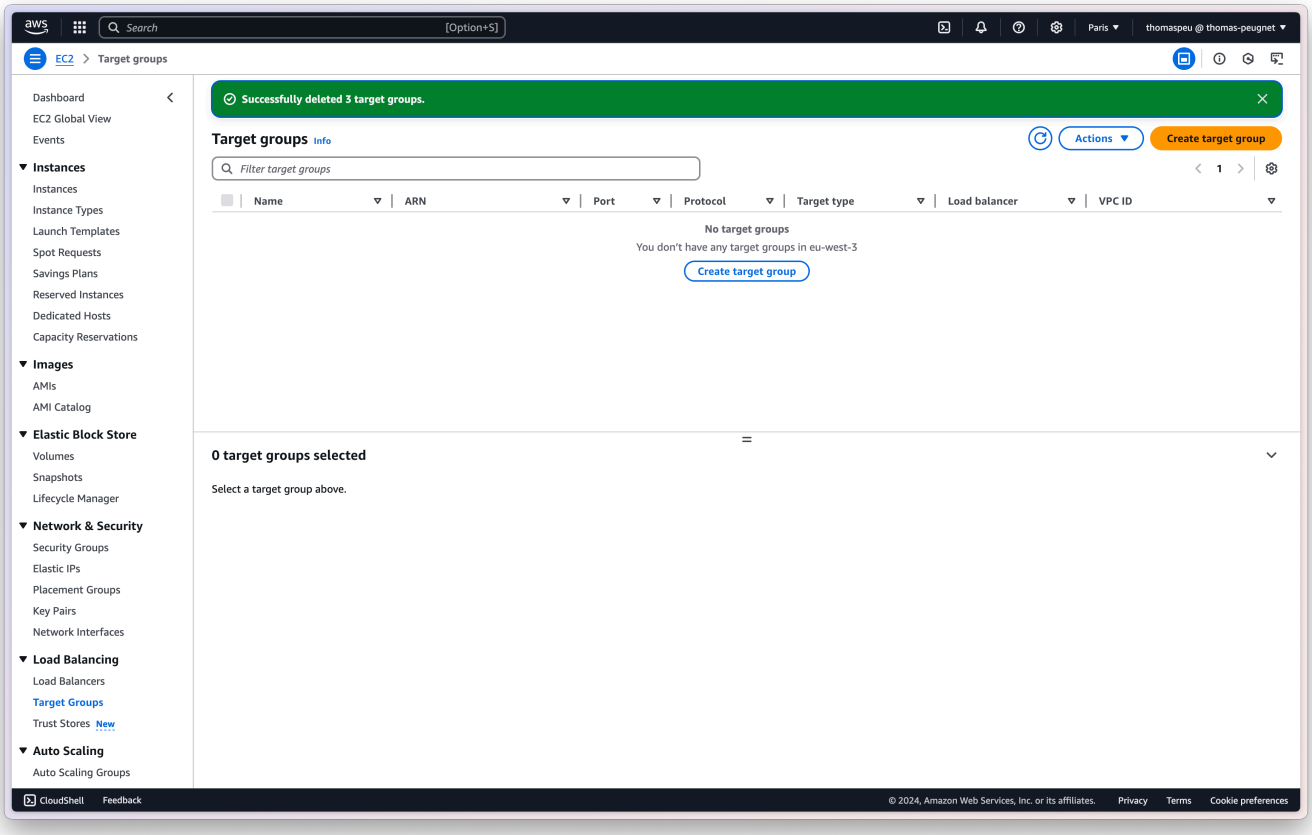
Nous supprimons notre ALB et notre NLB.



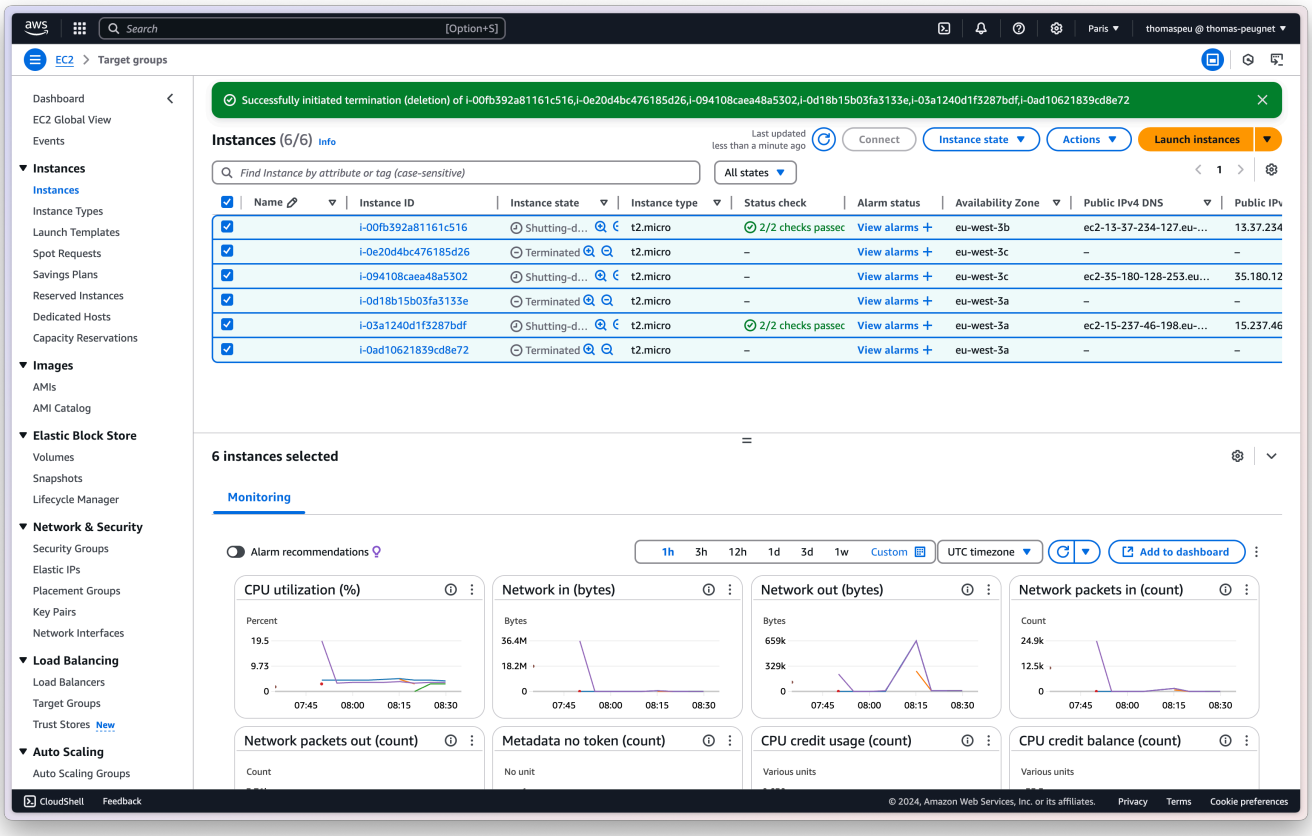
Nous supprimons notre Launch Template.



Nous supprimons nos TG.



Nous terminons nos instances.



Nous supprimons notre VPC.