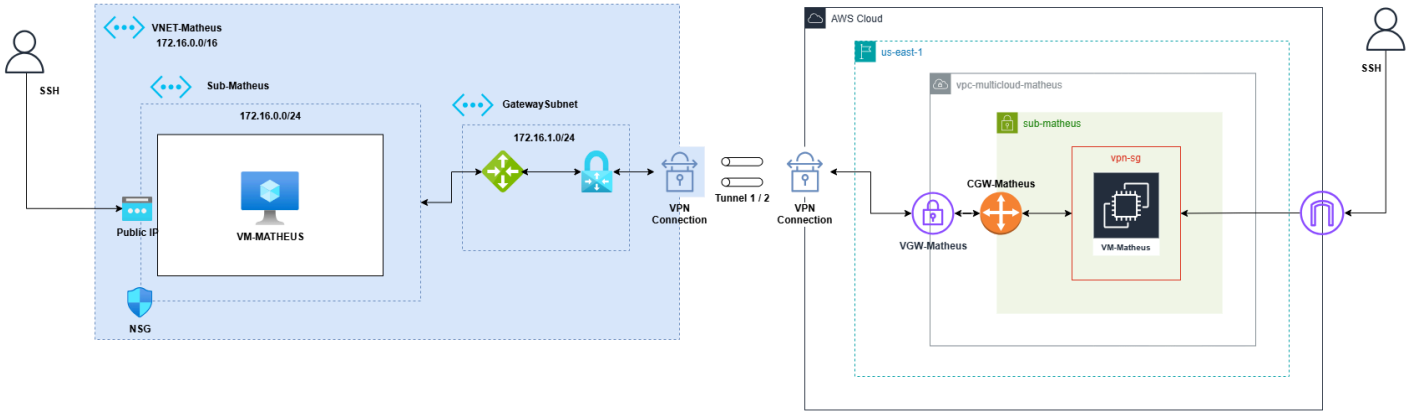
Matheus Souza Almeida - Documentação - Projeto Multi Cloud

Tabela da documentação

AWS		
VPC		
VPC	vpc-multicloud-matheus	
	Intervalo de IP´s: 10.0.0.0/16	
Subnet	sub-multi-matheus	
	Intervalo de IP´s: 10.0.0.0/24	
Internet Gateway	igw-multicloud-matheus	
Route Table	rtb-multi-matheus	
	0.0.0.0/0	Internet Gateway
	10.0.0.0/16	Local
	172.16.0.0/24	Virtual Private Gateway
Customer Gateway	cgw-azure-matheus	IP Azure: 4.236.131.106
Virtual Private Gateway	vgw-multicloud-matheus	
Conexão Site-to-site VPN	vpn-azure-matheus	
	Túnel 1	IP de Saída: 3.220.179.138
	Túnel 2	IP de Saída: 54.86.29.167
EC2		
Instância t2.micro	VM-MATHEUS-AWS	
Sistema Operacional	Ubuntu	
IP Público	3.92.68.56	
IP Privado	10.0.1.16	
Security Group	VPN-sg	
	ICMPv4	172.16.0.0/16
	SSH	0.0.0.0/0

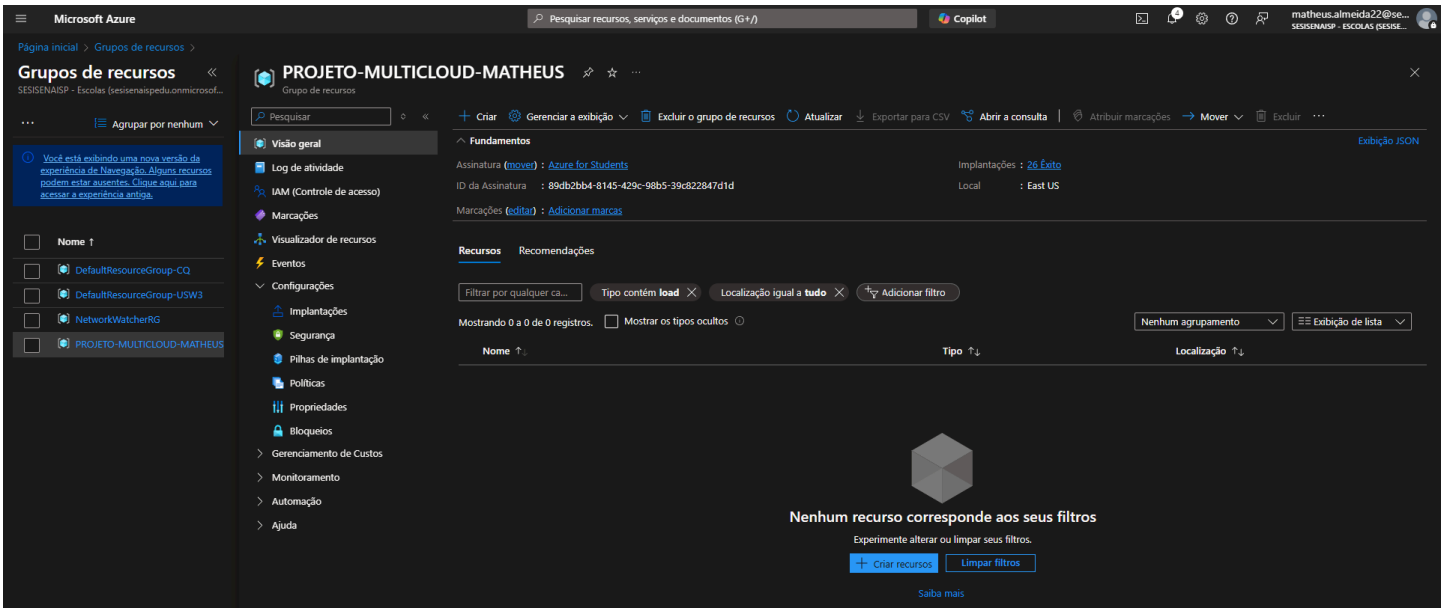
Azure		
Grupo de recursos	PROJETO-MULTICLOUD-MATHEUS	
VNET	vnet-multicloud-matheus	
Subnets	subnet-multi-matheus	172.16.0.0/24
	GatewaySubnet	172.16.1.0/27
Virtual Network Gateway	vng-multicloud-matheus	IP Publico: 4.236.131.106
Local Network Gateway	LGW-AZURE-MATHEUS	IP AWS: 3.220.179.138
	LGW2-AZURE-MATHEUS	IP AWS: 54.86.29.167
Conexão Tunnel 1	Conexao1-aws-matheus	
Conexão Tunnel 2	Conexao2-aws-matheus	
Máquina Virtual	VM-MATHEUS	
Sistema Operacional	Ubuntu	
IP Público	172.190.34.152	
IP Privado	172.16.0.4	
Network Security Group	VM-MATHEUS-nsg	
	SSH	0.0.0.0/0
	PERMITIR-PING	10.0.0.0/16

Topologia da VPN Multi Cloud

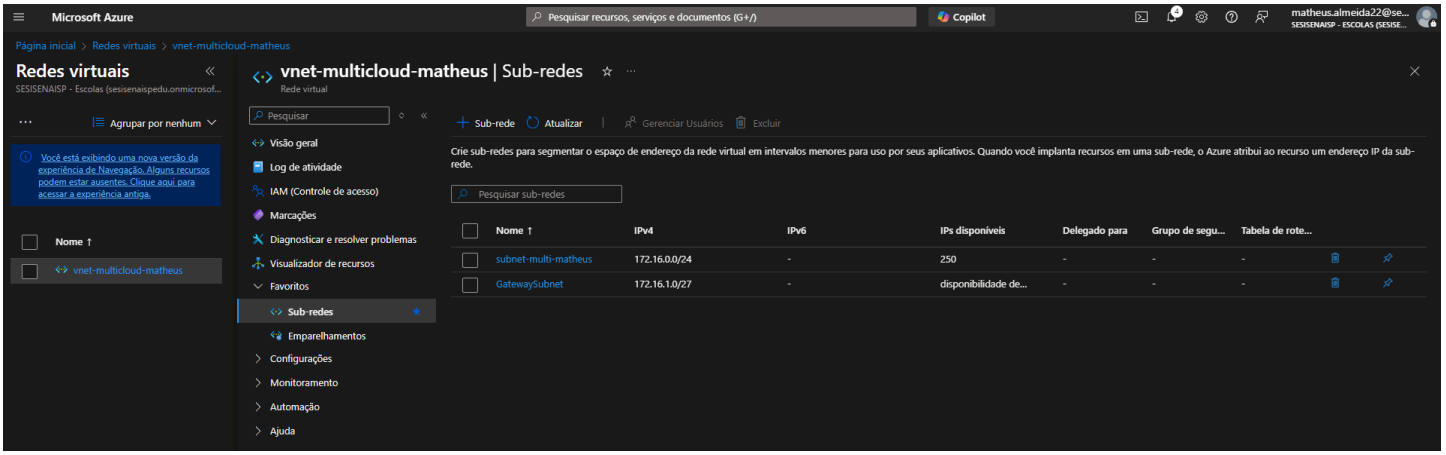


Configurações iniciais executadas na Azure

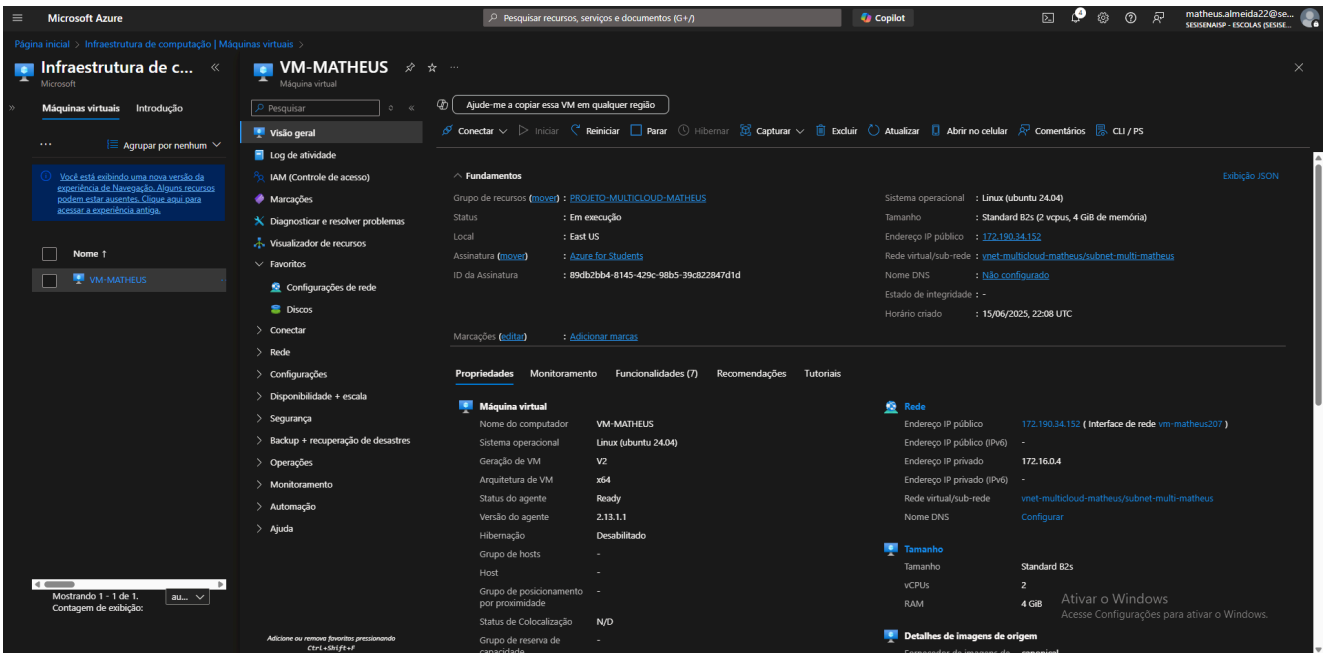
1. Criação do grupo de recursos



2. Criação da Virtual Network com subnet privadas

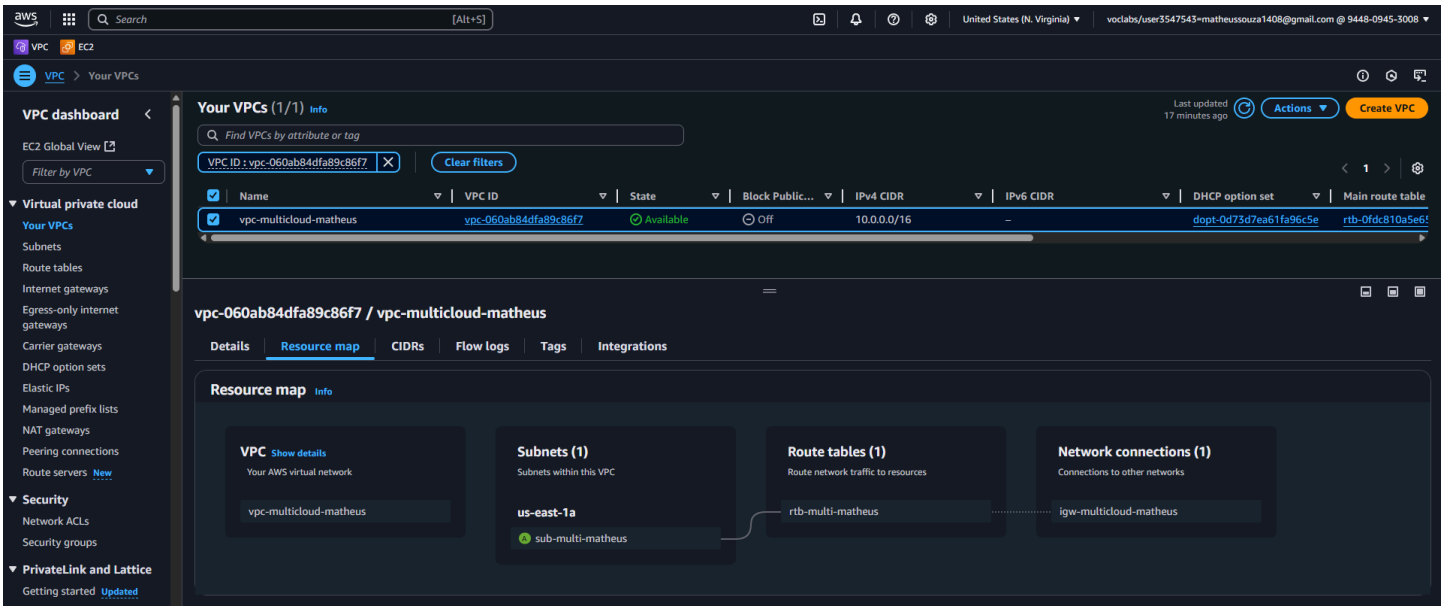


3. Deploy da VM com SO Ubuntu

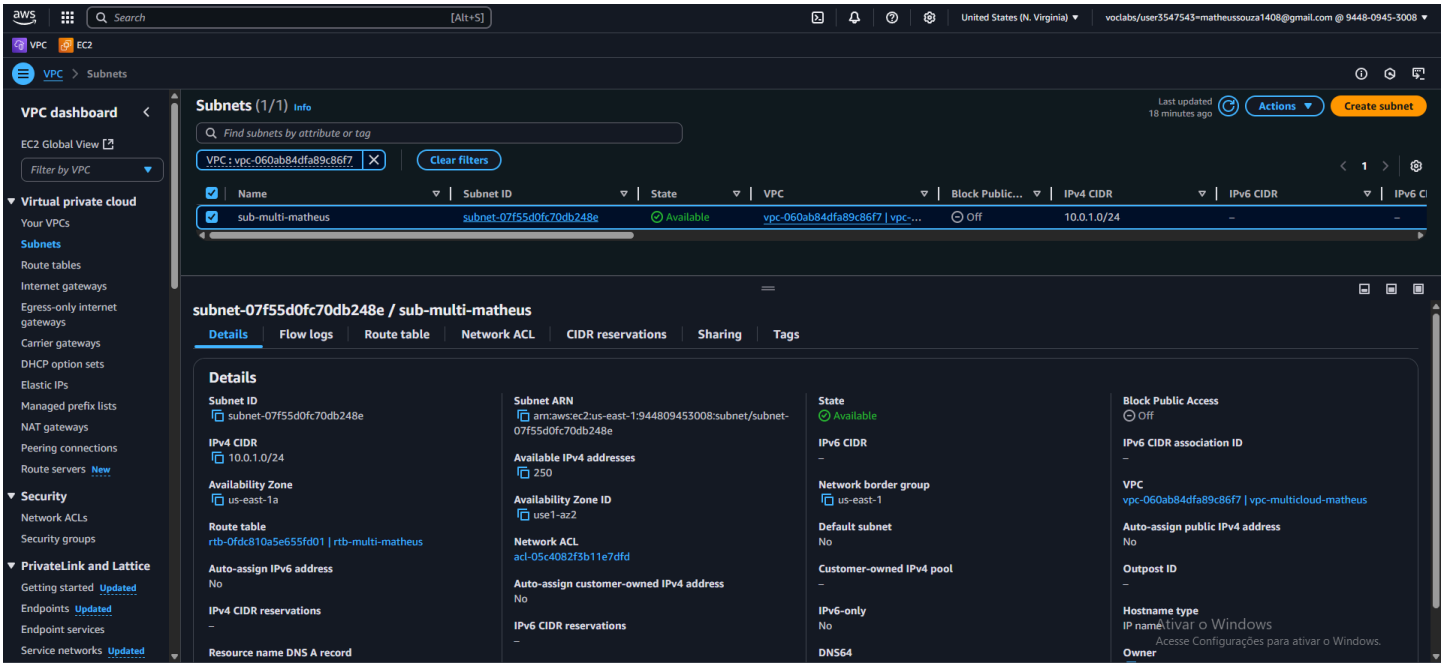


Configurações iniciais na AWS

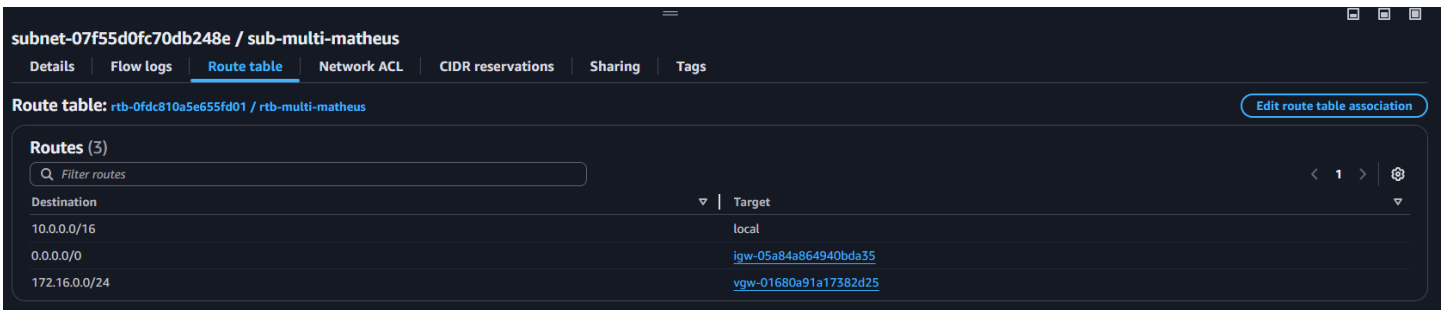
1. Criação da VPC

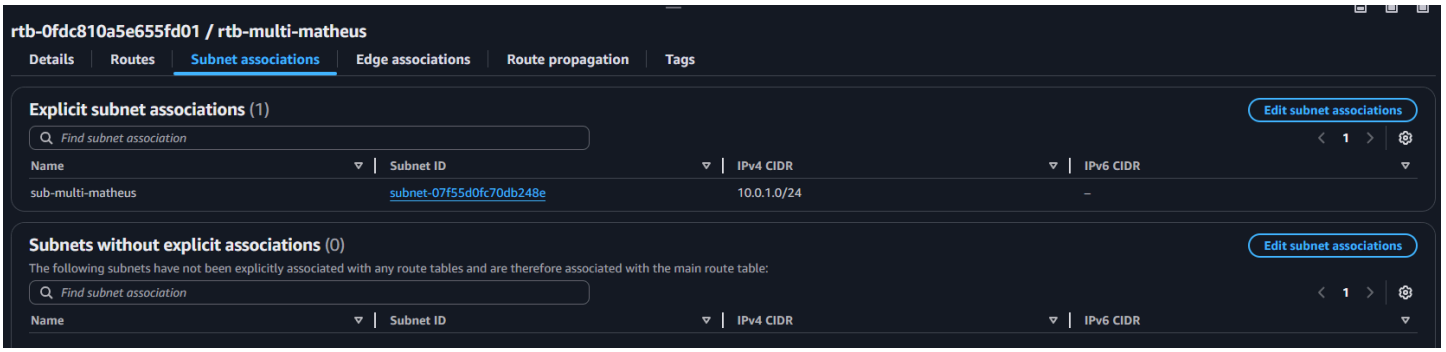


2. Criação da Subnet

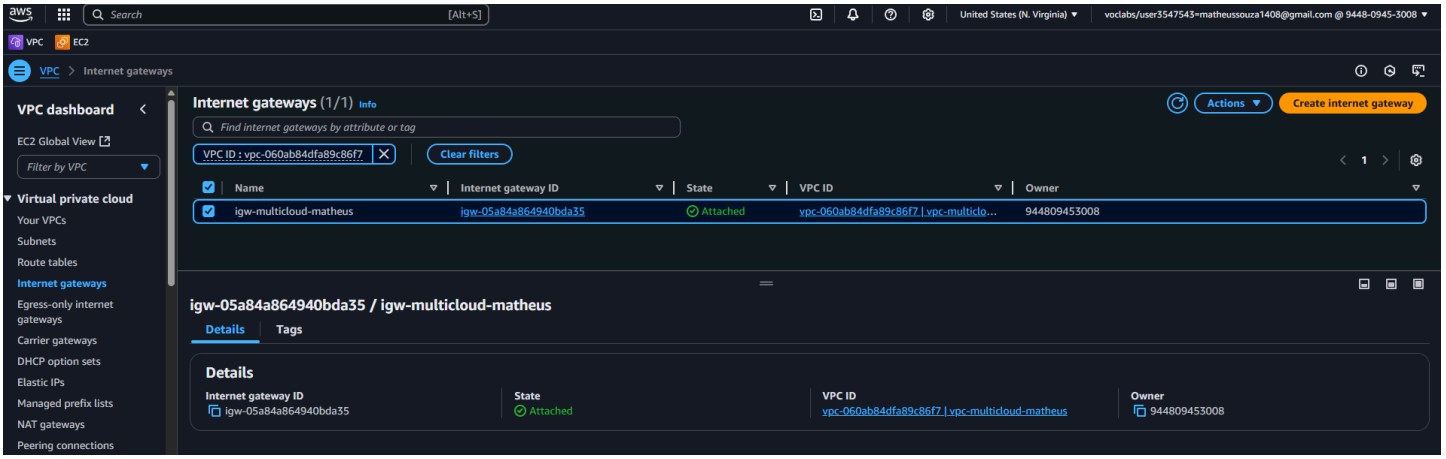


3. Criação da Route Table e associação da subnet

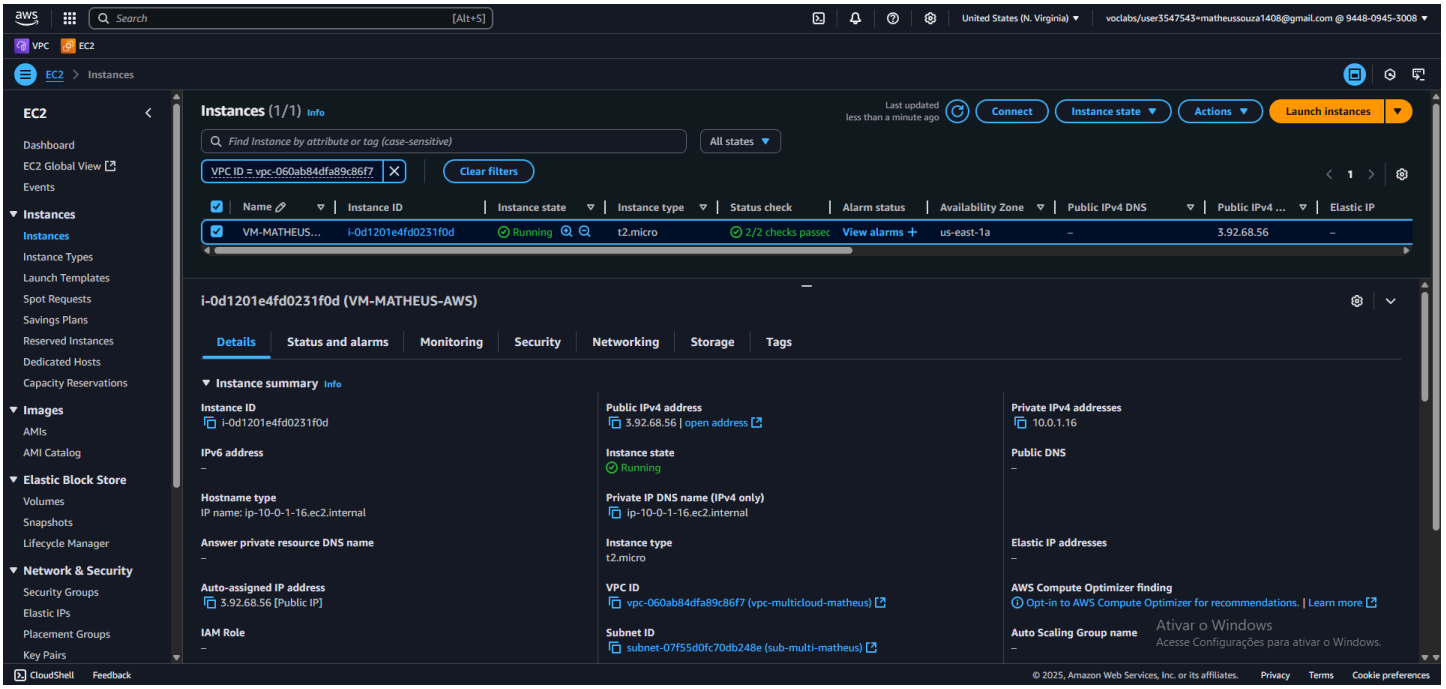




4. Implementação do Gateway de Internet

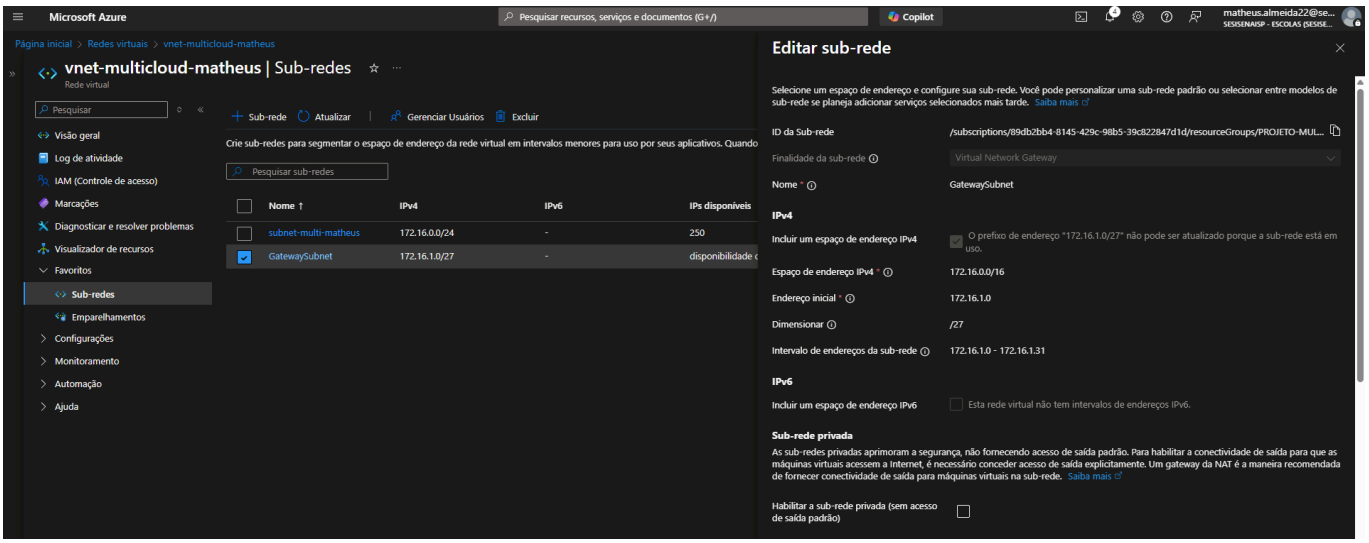


5. Deploy da VM

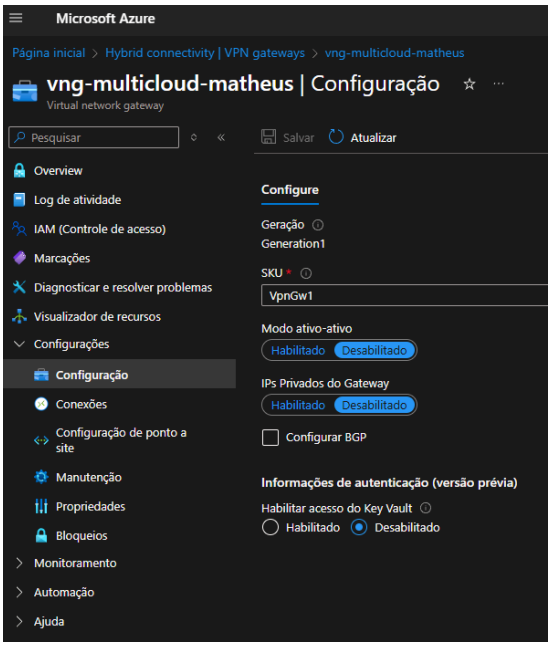


Configurações para VPN na Azure

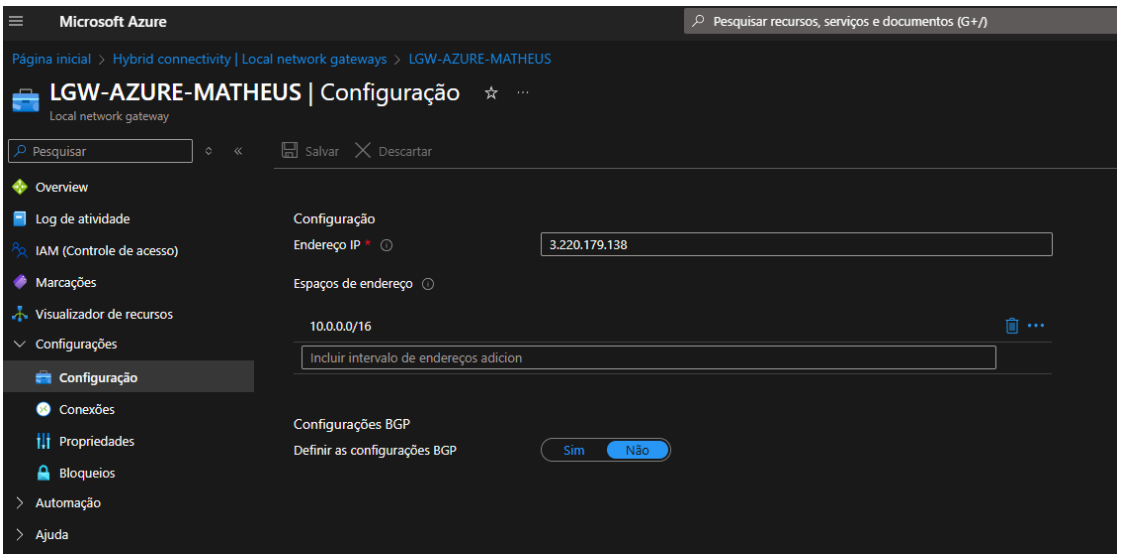
1. Criação a subnet específica para o Gateway privado



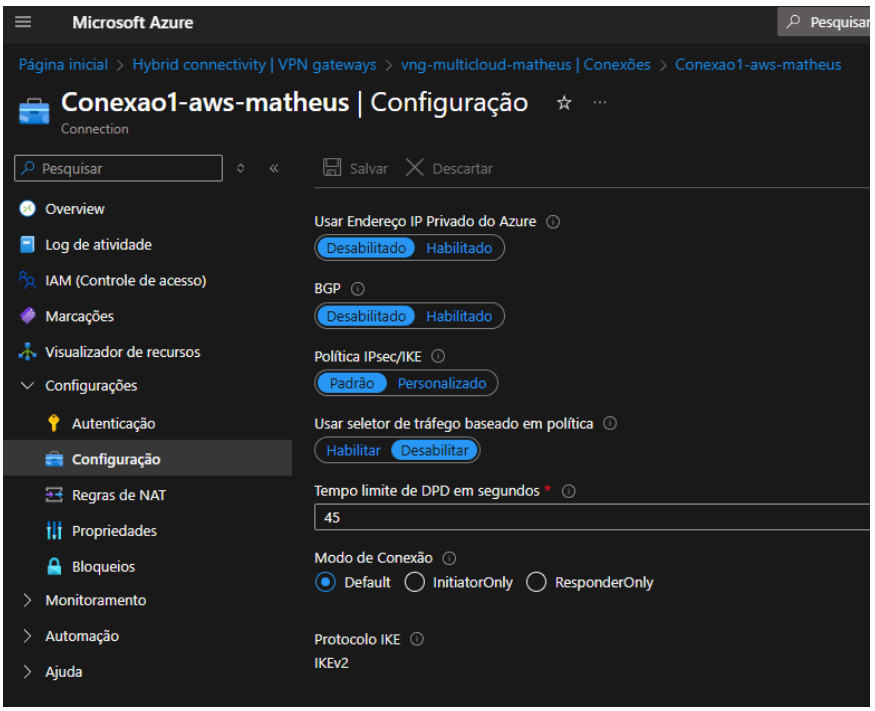
2. Criação do Virtual Network Gateway



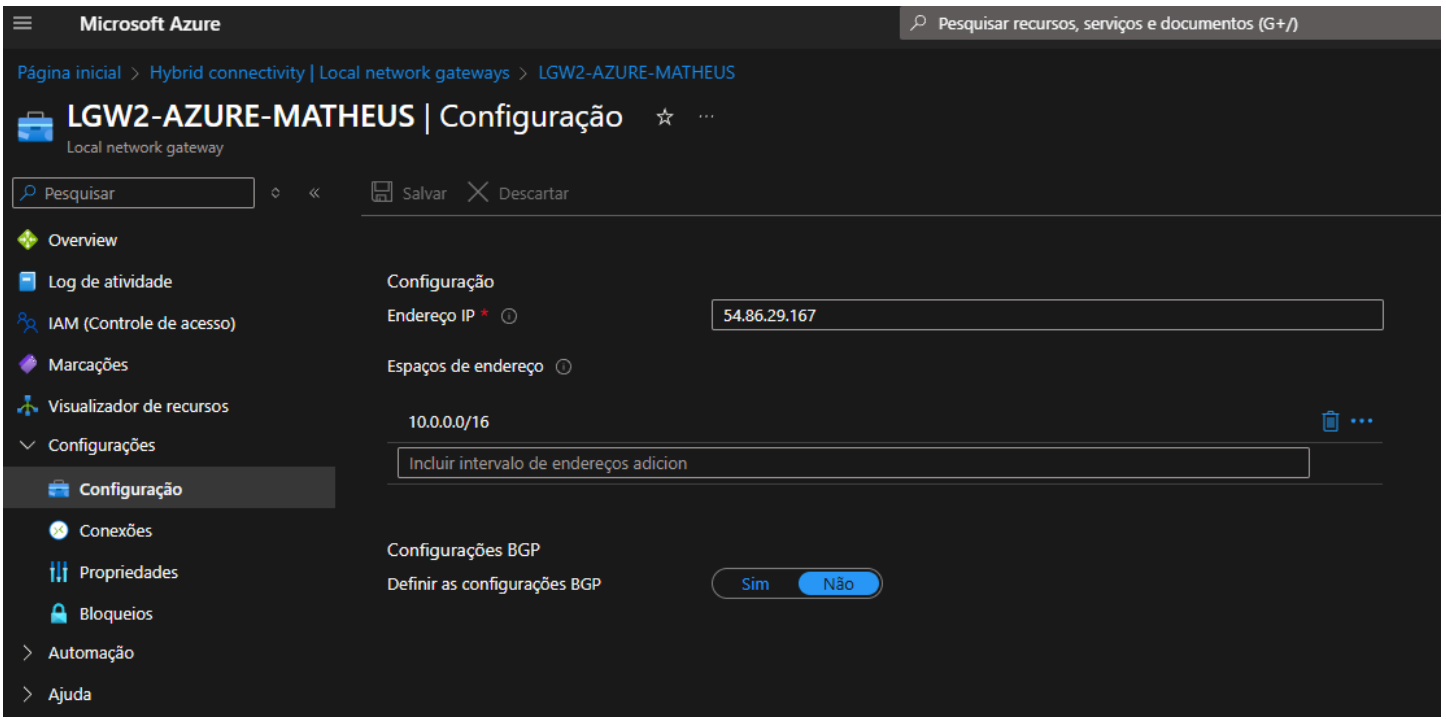
3. Criação do Local Network Gateway com o IP do Tunnel 1 do VGW da AWS



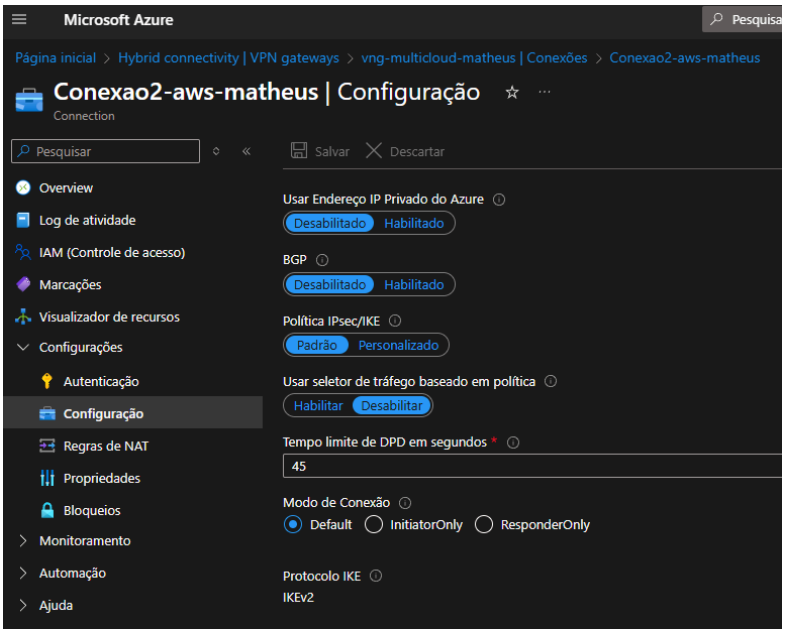
4. Conectar o Tunnel 1 da AWS com o Local Network Gateway da AWS



5. Criação do segundo Local Network Gateway com o IP do segundo túnel do VGW da AWS

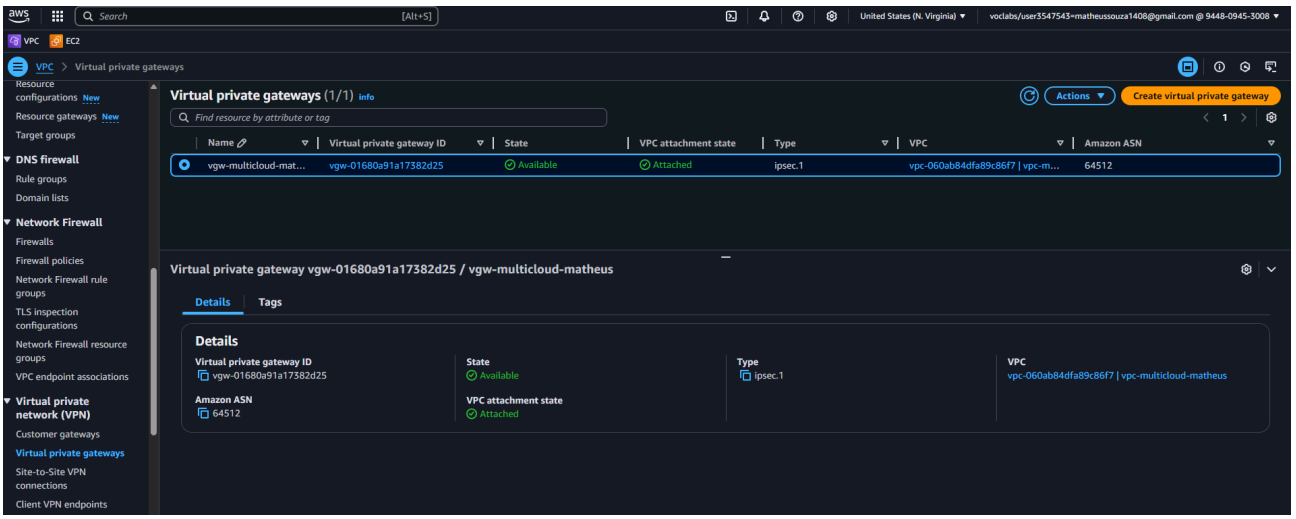


6. Conectar o Tunnel 2 da AWS com o segundo Local Network Gateway da AWS

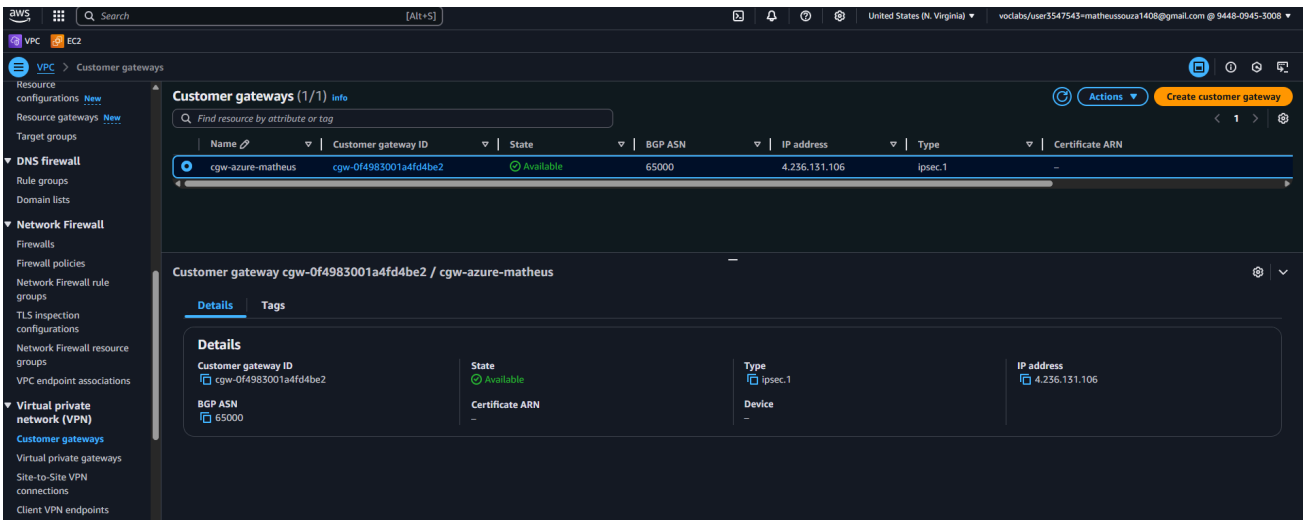


Configurações para VPN na AWS

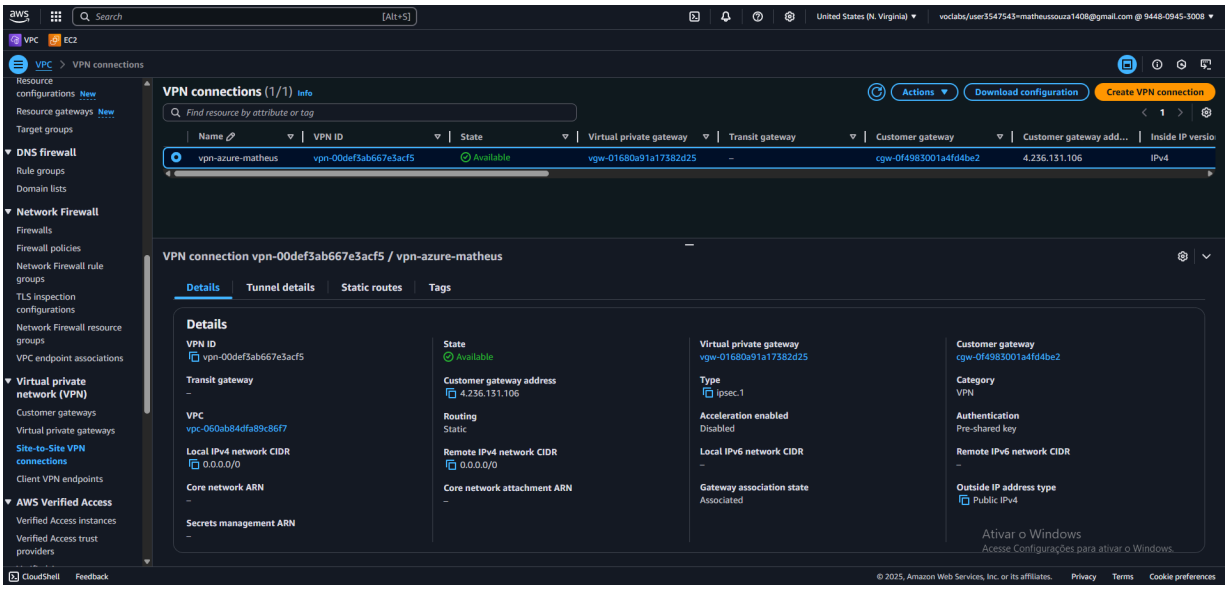
1. Criação do Virtual Private Gateway e anexar a VPC



2. Criação do Customer Gateway com o IP público do Virtual network gateway da Azure

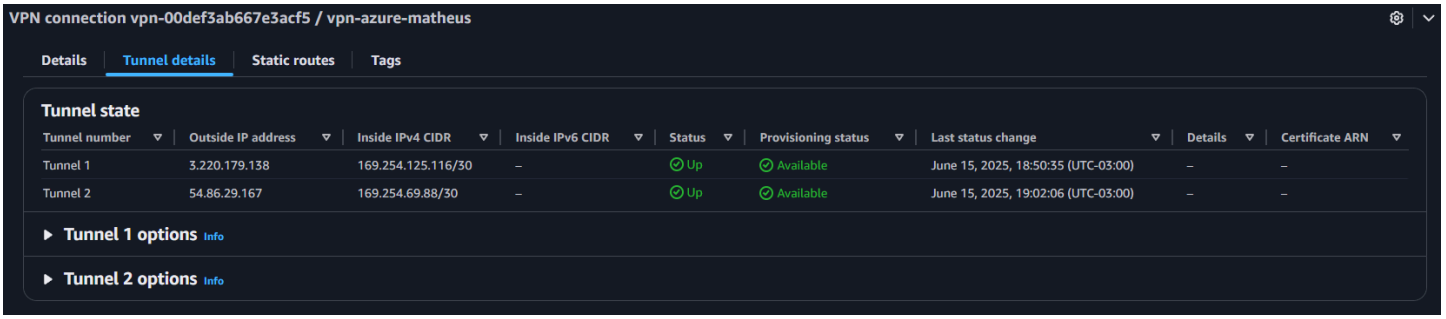


3. Criação da conexão site to site VPN para a Azure

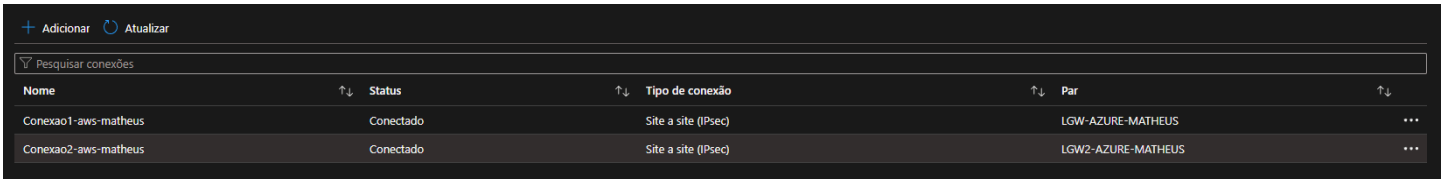


Testes da VPN

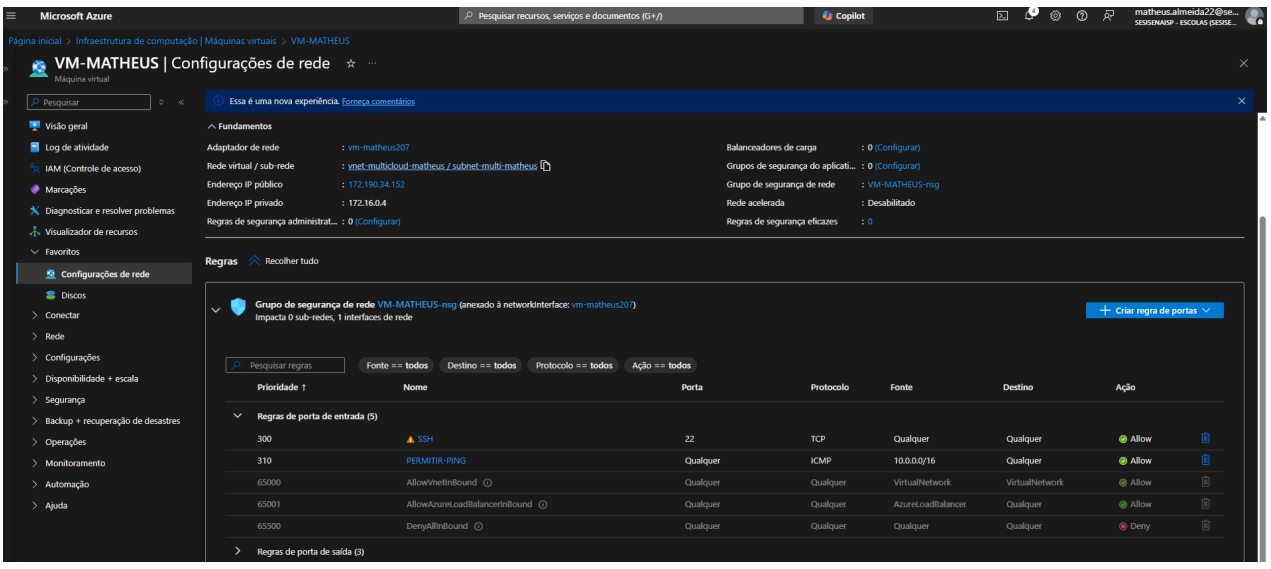
1. Conexões UP na AWS



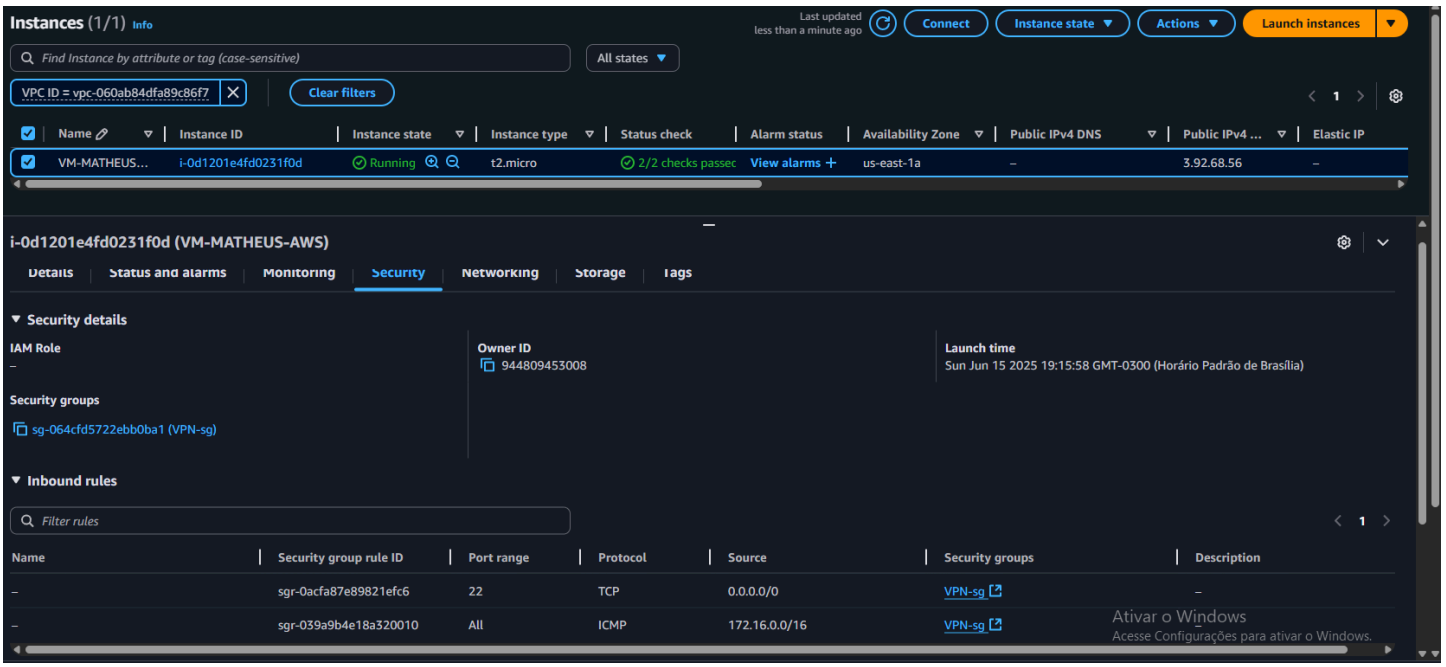
2. Conexões CONECTADO na Azure



3. Configurações do NSG da VM Azure permitindo SSH e ICMPv4

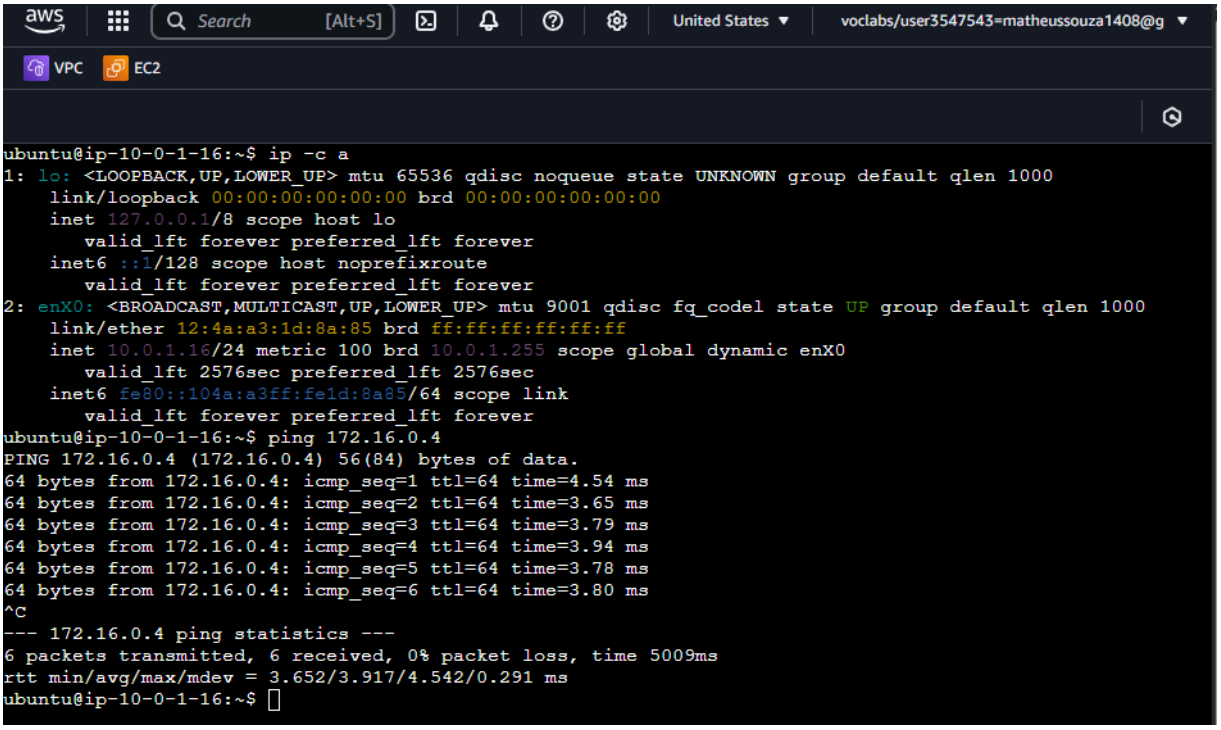


4. Configuração do Security Group da Instância EC2 permitindo SSH e ICMPv4



5. Teste de ping

Instância AWS => VM Azure



VM Azure => Instância AWS

```
senai@VM-MATHEUS:~$ ip -c a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host noprefixroute
       valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc mq state UP group default qlen 1000
    link/ether 7c:1e:52:47:fe:84 brd ff:ff:ff:ff:ff:ff
    inet 172.16.0.4/24 metric 100 brd 172.16.0.255 scope global eth0
       valid_lft forever preferred_lft forever
    inet6 fe80::7e1e:52ff:fe47:fe84/64 scope link
       valid_lft forever preferred_lft forever
senai@VM-MATHEUS:~$ ping 10.0.1.16
PING 10.0.1.16 (10.0.1.16) 56(84) bytes of data.
64 bytes from 10.0.1.16: icmp_seq=1 ttl=64 time=3.87 ms
64 bytes from 10.0.1.16: icmp_seq=2 ttl=64 time=4.39 ms
64 bytes from 10.0.1.16: icmp_seq=3 ttl=64 time=43.4 ms
64 bytes from 10.0.1.16: icmp_seq=4 ttl=64 time=4.25 ms
64 bytes from 10.0.1.16: icmp_seq=5 ttl=64 time=4.55 ms
64 bytes from 10.0.1.16: icmp_seq=6 ttl=64 time=4.05 ms
64 bytes from 10.0.1.16: icmp_seq=7 ttl=64 time=3.98 ms
^C
--- 10.0.1.16 ping statistics ---
7 packets transmitted, 7 received, 0% packet loss, time 6009ms
rtt min/avg/max/mdev = 3.869/9.777/43.352/13.708 ms
senai@VM-MATHEUS:~$
```

6. Teste de ssh

Instância AWS => VM Azure