

Vpc Tasks 03

Design and deploy a scalable network architecture using AWS Transit Gateway to simplify network connectivity between multiple VPCs.

Region Mumbai

The screenshot displays two panels from the AWS Management Console. The top panel shows the 'Transit gateways' page with a success message: 'You successfully created tgw-089e819d0d49eceab / my-tgw-mum.' Below this, a table lists the created transit gateway. The bottom panel shows the 'Route tables' page for 'rtb-011aedca095d8776a / vpc4-rt', displaying details such as Route table ID, VPC, Main status, and Owner ID.

Transit gateways (1) [info](#)

[Find transit gateway by attribute or tag](#) < 1 > [Settings](#)

<input type="checkbox"/>	Name ✎	Transit gateway ID	State
<input type="checkbox"/>	my-tgw-mum	tgw-089e819d0d49eceab	Pending

Select a transit gateway [Settings](#) [✕](#)

Updated routes for rtb-011aedca095d8776a / vpc4-rt successfully [✕](#) [Details](#)

[VPC](#) > [Route tables](#) > rtb-011aedca095d8776a

rtb-011aedca095d8776a / vpc4-rt

[Actions](#)

Details [info](#)

Route table ID <input type="checkbox"/> rtb-011aedca095d8776a	Main <input type="checkbox"/> Yes	Explicit subnet associations -	Edge associations -
VPC vpc-057455144e8dee3d4 my-mum-vpc4	Owner ID <input type="checkbox"/> 183631301772		

[Routes](#) | [Subnet associations](#) | [Edge associations](#) | [Route propagation](#) | [Tags](#)

Routes (4) [Both](#) [Edit routes](#)

[Filter routes](#) < 1 > [Settings](#)

Route tables (1/5) Info

Last updated 1 minute ago

Actions

Create route table

Find resources by attribute or tag

< 1 >

	Name	Route table ID	Explicit subnet associ...	Edge associations	Main	VP
<input type="checkbox"/>	-	rtb-02c00f70f7d827e07	-	-	Yes	vp
<input type="checkbox"/>	vpc2-rt	rtb-03f34720b69c33129	-	-	Yes	vp
<input type="checkbox"/>	vpc1-rt	rtb-03295319b602be3e3	-	-	Yes	vp
<input type="checkbox"/>	vpc3-rt	rtb-0dd91bd28f9670a3e	-	-	Yes	vp
<input checked="" type="checkbox"/>	vpc4-rt	rtb-011aedca095d8776a	-	-	Yes	vp

rtb-011aedca095d8776a / vpc4-rt

Details Routes Subnet associations Edge associations Route propagation Tags

Details

Instances (4) Info

Last updated less than a minute ago

Connect

Instance state

Actions

Launch instances

Find Instance by attribute or tag (case-sensitive)

All states

Instance state = running

Clear filters

< 1 >

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability
<input type="checkbox"/>	my-ec2-mum-3	i-000ca3ff2b6a0b19c	Running	t3.micro	3/3 checks passec	View alarms	ap-south-1
<input type="checkbox"/>	my-ec2-mum4	i-0870bb3b664d4b6a4	Running	t2.micro	2/2 checks passec	View alarms	ap-south-1
<input type="checkbox"/>	my-ec2-mum2	i-0ac2ff625f160f701	Running	t2.micro	2/2 checks passec	View alarms	ap-south-1
<input type="checkbox"/>	my-ec2-mum1	i-0071b776717208067	Running	t2.micro	2/2 checks passec	View alarms	ap-south-1

Select an instance

Internet gateways (5) Info

Actions

Create internet gateway

Search

< 1 >

	Name	Internet gateway ID	State	VPC ID
<input type="checkbox"/>	-	igw-09603ea004f8d6732	Attached	vpc-0634ba2766ad71dae
<input type="checkbox"/>	my-igw-mum1	igw-0d64fd3e0de155ccc	Attached	vpc-0dcf1c1d19ebfa83d my-mum-v...
<input type="checkbox"/>	my-igw-mum2	igw-00e5cc42f4833fbe7	Attached	vpc-08ea43ca81b5b1c5b my-mum-v...
<input type="checkbox"/>	my-igw-mum3	igw-00be08fc050e81819	Attached	vpc-03cae4a02623501b1 my-mum-...
<input type="checkbox"/>	my-igw-mum4	igw-01b2e2301e2e402b3	Attached	vpc-057455144e8dee3d4 my-mum-...

Select an internet gateway above

❗ You can visualize and monitor your Transit Gateway(s) from the [AWS Network Manager](#). Register your Transit Gateway by creating a [global network](#) to get started.

Transit gateway attachments (4) [info](#)



Actions ▾

Create transit gateway attachment

Find transit gateway attachment by attribute or tag

< 1 > ⚙

<input type="checkbox"/>	Name 🔗 ▾	Transit gateway attachment ID ▾	Transit gateway ID ▾	State ▾	Resourc... ▾	Re
<input type="checkbox"/>	tgw-mum-vpc3	tgw-attach-055190e06cb4c0bcd	tgw-089e819d0d49eceab	✔ Available	VPC	vp
<input type="checkbox"/>	tgw-mum-vpc4	tgw-attach-0a4b52b9ff95f8de9	tgw-089e819d0d49eceab	✔ Available	VPC	vp
<input type="checkbox"/>	tgw-mum-vpc2	tgw-attach-0dfe693451dbf6662	tgw-089e819d0d49eceab	✔ Available	VPC	vp
<input type="checkbox"/>	tgw-mum-vpc1	tgw-attach-0f29ffded3069cf82	tgw-089e819d0d49eceab	✔ Available	VPC	vp

Select a transit gateway attachment



Transit gateway route tables (1/1) [info](#)



Actions ▾

Create transit gateway route table

Find transit gateway route table by attribute or tag

< 1 > ⚙

<input checked="" type="checkbox"/>	Name 🔗 ▾	Transit gateway route table ID ▾	Transit gateway ID ▾	State ▾	Default association rout
<input checked="" type="checkbox"/>		tgw-rtb-0fe7a43d41b6beb73	tgw-089e819d0d49eceab	✔ Available	Yes

Transit gateway route tables: tgw-rtb-0fe7a43d41b6beb73



Associations (4) [info](#)



Delete association

Create association

Find association by attribute or tag

< 1 > ⚙

<input type="checkbox"/>	Attachment ID ▾	Resource type ▾	Resource ID ▾	State ▾
<input type="checkbox"/>	tgw-attach-0a4b52b9ff95f8de9	VPC	vpc-057455144e8dee3d4	✔ Associated
<input type="checkbox"/>	tgw-attach-0f29ffded3069cf82	VPC	vpc-0dcf1c1d19ebfa83d	✔ Associated
<input type="checkbox"/>	tgw-attach-055190e06cb4c0bcd	VPC	vpc-03cae4a02623501b1	✔ Associated
<input type="checkbox"/>	tgw-attach-0dfe693451dbf6662	VPC	vpc-08ea43ca81b5b1c5b	✔ Associated

```
root@ip-10-10-2-7:~# ping -c 1 10.10.3.7
64 bytes from 10.10.3.7: icmp_seq=45 ttl=254 time=1.22 ms
64 bytes from 10.10.3.7: icmp_seq=46 ttl=254 time=1.42 ms
64 bytes from 10.10.3.7: icmp_seq=47 ttl=254 time=1.13 ms
64 bytes from 10.10.3.7: icmp_seq=48 ttl=254 time=1.21 ms
64 bytes from 10.10.3.7: icmp_seq=49 ttl=254 time=1.08 ms
64 bytes from 10.10.3.7: icmp_seq=50 ttl=254 time=1.15 ms
64 bytes from 10.10.3.7: icmp_seq=51 ttl=254 time=1.11 ms
64 bytes from 10.10.3.7: icmp_seq=52 ttl=254 time=1.18 ms
64 bytes from 10.10.3.7: icmp_seq=53 ttl=254 time=1.15 ms
64 bytes from 10.10.3.7: icmp_seq=54 ttl=254 time=1.12 ms
64 bytes from 10.10.3.7: icmp_seq=55 ttl=254 time=1.24 ms
64 bytes from 10.10.3.7: icmp_seq=56 ttl=254 time=1.14 ms
64 bytes from 10.10.3.7: icmp_seq=57 ttl=254 time=1.20 ms
64 bytes from 10.10.3.7: icmp_seq=58 ttl=254 time=2.04 ms
64 bytes from 10.10.3.7: icmp_seq=59 ttl=254 time=1.15 ms
64 bytes from 10.10.3.7: icmp_seq=60 ttl=254 time=1.12 ms
64 bytes from 10.10.3.7: icmp_seq=61 ttl=254 time=1.18 ms
64 bytes from 10.10.3.7: icmp_seq=62 ttl=254 time=1.09 ms
64 bytes from 10.10.3.7: icmp_seq=63 ttl=254 time=1.11 ms
64 bytes from 10.10.3.7: icmp_seq=64 ttl=254 time=1.09 ms
64 bytes from 10.10.3.7: icmp_seq=65 ttl=254 time=1.08 ms

root@ip-10-10-1-11:/home/ec2-user# ping -c 1 10.10.2.7
64 bytes from 10.10.2.7: icmp_seq=72 ttl=254 time=1.62 ms
64 bytes from 10.10.2.7: icmp_seq=73 ttl=254 time=1.05 ms
64 bytes from 10.10.2.7: icmp_seq=74 ttl=254 time=1.06 ms
64 bytes from 10.10.2.7: icmp_seq=75 ttl=254 time=1.11 ms
64 bytes from 10.10.2.7: icmp_seq=76 ttl=254 time=1.49 ms
64 bytes from 10.10.2.7: icmp_seq=77 ttl=254 time=1.66 ms
64 bytes from 10.10.2.7: icmp_seq=78 ttl=254 time=1.28 ms
64 bytes from 10.10.2.7: icmp_seq=79 ttl=254 time=1.19 ms
64 bytes from 10.10.2.7: icmp_seq=80 ttl=254 time=1.39 ms
64 bytes from 10.10.2.7: icmp_seq=81 ttl=254 time=1.35 ms
64 bytes from 10.10.2.7: icmp_seq=82 ttl=254 time=1.35 ms
64 bytes from 10.10.2.7: icmp_seq=83 ttl=254 time=1.31 ms
64 bytes from 10.10.2.7: icmp_seq=84 ttl=254 time=1.41 ms
64 bytes from 10.10.2.7: icmp_seq=85 ttl=254 time=1.40 ms
64 bytes from 10.10.2.7: icmp_seq=86 ttl=254 time=1.05 ms
64 bytes from 10.10.2.7: icmp_seq=87 ttl=254 time=1.49 ms
64 bytes from 10.10.2.7: icmp_seq=88 ttl=254 time=1.05 ms
64 bytes from 10.10.2.7: icmp_seq=89 ttl=254 time=1.24 ms
64 bytes from 10.10.2.7: icmp_seq=90 ttl=254 time=1.26 ms
64 bytes from 10.10.2.7: icmp_seq=91 ttl=254 time=1.08 ms
64 bytes from 10.10.2.7: icmp_seq=92 ttl=254 time=1.21 ms
64 bytes from 10.10.2.7: icmp_seq=93 ttl=254 time=1.36 ms

ec2-user@ip-10-10-0-9:~# ping -c 1 10.10.1.11
64 bytes from 10.10.1.11: icmp_seq=146 ttl=254 time=1.13 ms
64 bytes from 10.10.1.11: icmp_seq=147 ttl=254 time=1.68 ms
64 bytes from 10.10.1.11: icmp_seq=148 ttl=254 time=0.591 ms
64 bytes from 10.10.1.11: icmp_seq=149 ttl=254 time=0.868 ms
64 bytes from 10.10.1.11: icmp_seq=150 ttl=254 time=0.748 ms
64 bytes from 10.10.1.11: icmp_seq=151 ttl=254 time=1.11 ms
64 bytes from 10.10.1.11: icmp_seq=152 ttl=254 time=0.440 ms
64 bytes from 10.10.1.11: icmp_seq=153 ttl=254 time=0.737 ms
64 bytes from 10.10.1.11: icmp_seq=154 ttl=254 time=0.977 ms
64 bytes from 10.10.1.11: icmp_seq=155 ttl=254 time=0.442 ms
64 bytes from 10.10.1.11: icmp_seq=156 ttl=254 time=1.74 ms
64 bytes from 10.10.1.11: icmp_seq=157 ttl=254 time=1.76 ms
64 bytes from 10.10.1.11: icmp_seq=158 ttl=254 time=0.788 ms
64 bytes from 10.10.1.11: icmp_seq=159 ttl=254 time=0.935 ms
64 bytes from 10.10.1.11: icmp_seq=160 ttl=254 time=1.56 ms
64 bytes from 10.10.1.11: icmp_seq=161 ttl=254 time=0.729 ms
64 bytes from 10.10.1.11: icmp_seq=162 ttl=254 time=0.457 ms

Example:
ssh -i "rakesh2.pem" ec2-user@65.1.12.35
```

Eu Frankfurt Region

Services

Search

[Alt+S]

Frankfurt

RP%20learning

EC2 dashboard

Your VPCs (5)

Info

Last updated 7 minutes ago

Actions

Create VPC

Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR
my-frank-vpc1	vpc-0784bdeb166822834	Available	20.10.0.0/28	-
my-frank-vpc2	vpc-0092c7deec0156fae	Available	20.10.1.0/28	-
my-frank-vpc3	vpc-03f599eea3e7955f1	Available	20.10.2.0/28	-
my-frank-vpc4	vpc-06dc10db66eea44b9	Available	20.10.3.0/28	-

Select a VPC above

Services

Search

[Alt+S]

Frankfurt

RP%20learning

EC2 dashboard

Subnets (7)

Info

Last updated less than a minute ago

Actions

Create subnet

You have successfully created 1 subnet: subnet-0be3a5021bff42b91

Name	Subnet ID	State	VPC	IPv4 CIDR
my-frank-sub1	subnet-01037dca2dab2e557	Available	vpc-0784bdeb166822834 my-frank-vpc1	20.10.0.0/28
my-frank-sub2	subnet-0cb6a1d8cb315ec68	Available	vpc-0092c7deec0156fae my-frank-vpc2	20.10.1.0/28
my-frank-sub3	subnet-083840a52ac5fa59a	Available	vpc-03f599eea3e7955f1 my-frank-vpc3	20.10.2.0/28
my-frank-sub4	subnet-0be3a5021bff42b91	Available	vpc-06dc10db66eea44b9 my-frank-vpc4	20.10.3.0/28

Select a subnet

Dashboard

Global View

by VPC

private cloud

EC2s

Subnets

Load balancers

Transit gateways

Only internet

Access

Transit gateways

You successfully created VPC attachment tgw-attach-0938e6e33bda954a9 / tgw-frank4.

Transit gateway attachments (4)

Find transit gateway attachment by attribute or tag

<input type="checkbox"/>	Name	Transit gateway attachment ID	Transit gateway ID	State	Resource type
<input type="checkbox"/>	tgw-frank4	tgw-attach-0938e6e33bda954a9	tgw-04501fd8b781e71b8	Pending	VPC
<input type="checkbox"/>	tgw-frank3	tgw-attach-0a78524c662d73dbc	tgw-04501fd8b781e71b8	Pending	VPC
<input type="checkbox"/>	tgw-frank1	tgw-attach-0a938aaecfda9223	tgw-04501fd8b781e71b8	Available	VPC
<input type="checkbox"/>	tgw-frank2	tgw-attach-0fcc889d2c29546c4	tgw-04501fd8b781e71b8	Pending	VPC

Select a transit gateway attachment

Instances

Instances (4)

Last updated less than a minute ago

Find Instance by attribute or tag (case-sensitive)

All states

<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability
<input type="checkbox"/>	ec2-frank3	i-082a75461af8d0f5d	Running	t2.micro	Initializing	View alarms	eu-central-1
<input type="checkbox"/>	ec2-frank4	i-006572184e5d358f2	Running	t2.micro	Initializing	View alarms	eu-central-1
<input type="checkbox"/>	ec2-frank1	i-0cb3f116b9cdca31f	Running	t2.micro	2/2 checks passed	View alarms	eu-central-1
<input type="checkbox"/>	ec2-frank2	i-0e7a13973723d6e59	Running	t2.micro	2/2 checks passed	View alarms	eu-central-1

Select an instance

Services Search [Alt+S] Frankfurt RP%20learning

Updated routes for rtb-043722c30da96b95d / frank3-rt successfully

Details

VPC > Route tables > rtb-043722c30da96b95d

rtb-043722c30da96b95d / frank3-rt

Actions

Details Info

Route table ID	Main	Explicit subnet associations	Edge associations
rtb-043722c30da96b95d	Yes	-	-
VPC	Owner ID		
vpc-03f599eea3e7955f1 my-frank-vpc3	183631301772		

Routes Subnet associations Edge associations Route propagation Tags

Routes (5)

Filter routes

Both Edit routes

Transit gateways (1) info

Find transit gateway by attribute or tag

Actions Create transit gateway

Name	Transit gateway ID	State
my-tgw-frankfurt	tgw-04501fd8b781e71b8	Available

Select a transit gateway

TGW peering

Services Search [Alt+S] Frankfurt RP%20learning

Accept transit gateway peering attachment(tgw-attach-00ea69fb2949a1a21) succeeded.

Transit gateway attachments (5) info

Find transit gateway attachment by attribute or tag

Actions Create transit gateway attachment

Name	Transit gateway attachment ID	Transit gateway ID	State	Resource
	tgw-attach-00ea69fb2949a1a21	tgw-04501fd8b781e71b8	Pending	Peering
tgw-frank4	tgw-attach-0938e6e33bda954a9	tgw-04501fd8b781e71b8	Available	VPC
tgw-frank3	tgw-attach-0a78524c662d73dbc	tgw-04501fd8b781e71b8	Available	VPC
tgw-frank1	tgw-attach-0a938aaeacfd9a223	tgw-04501fd8b781e71b8	Available	VPC

Select a transit gateway attachment

Cross Rigon Ping

ec2-user@ip-10-10-0-9:~

```
~/.ssh/
#_
##### Amazon Linux 2023, GA and supported until 2028-03-15.
https://aws.amazon.com/linux/amazon-linux-2023/

[ec2-user@ip-20-10-0-10 ~]$
[ec2-user@ip-20-10-0-10 ~]$ client_loop: send disconnect: Connection reset by pe
er

nani@DESKTOP-05K4621 MINGW64 ~/Downloads
$ ssh -i "rakesh3.pem" ec2-user@3.120.190.207
Last login: Wed Nov 13 13:13:36 2024 from 49.37.152.146

#_
##### Amazon Linux 2
#####
##### AL2 End of Life is 2025-06-30.
#####
##### A newer version of Amazon Linux is available!
#####
##### Amazon Linux 2023, GA and supported until 2028-03-15.
https://aws.amazon.com/linux/amazon-linux-2023/

[ec2-user@ip-20-10-0-10 ~]$
[ec2-user@ip-20-10-0-10 ~]$ ping 20.10.2.4
PING 20.10.2.4 (20.10.2.4) 56(84) bytes of data.
64 bytes from 20.10.2.4: icmp_seq=1 ttl=254 time=2.80 ms
64 bytes from 20.10.2.4: icmp_seq=2 ttl=254 time=1.75 ms
64 bytes from 20.10.2.4: icmp_seq=3 ttl=254 time=2.51 ms
64 bytes from 20.10.2.4: icmp_seq=4 ttl=254 time=1.74 ms
64 bytes from 20.10.2.4: icmp_seq=5 ttl=254 time=1.56 ms
64 bytes from 20.10.2.4: icmp_seq=6 ttl=254 time=2.45 ms
64 bytes from 20.10.2.4: icmp_seq=7 ttl=254 time=1.51 ms
64 bytes from 20.10.2.4: icmp_seq=8 ttl=254 time=1.98 ms
64 bytes from 20.10.2.4: icmp_seq=9 ttl=254 time=1.73 ms
64 bytes from 20.10.2.4: icmp_seq=10 ttl=254 time=2.55 ms
64 bytes from 20.10.2.4: icmp_seq=11 ttl=254 time=2.04 ms
64 bytes from 20.10.2.4: icmp_seq=12 ttl=254 time=1.88 ms
64 bytes from 20.10.2.4: icmp_seq=13 ttl=254 time=2.13 ms
64 bytes from 20.10.2.4: icmp_seq=14 ttl=254 time=2.10 ms
64 bytes from 20.10.2.4: icmp_seq=15 ttl=254 time=3.76 ms
64 bytes from 20.10.2.4: icmp_seq=16 ttl=254 time=1.98 ms
64 bytes from 20.10.2.4: icmp_seq=17 ttl=254 time=2.21 ms
64 bytes from 20.10.2.4: icmp_seq=18 ttl=254 time=2.12 ms
64 bytes from 20.10.2.4: icmp_seq=19 ttl=254 time=1.77 ms
64 bytes from 20.10.2.4: icmp_seq=20 ttl=254 time=1.97 ms
64 bytes from 20.10.2.4: icmp_seq=21 ttl=254 time=2.77 ms
64 bytes from 20.10.2.4: icmp_seq=22 ttl=254 time=2.14 ms
64 bytes from 20.10.2.4: icmp_seq=23 ttl=254 time=2.07 ms
64 bytes from 20.10.2.4: icmp_seq=24 ttl=254 time=2.29 ms
64 bytes from 20.10.2.4: icmp_seq=25 ttl=254 time=1.78 ms
```


