

Create 4 Vpc's in 4 different regions and setup transit gateway.

--Create vpc in different regions by changing the regions "(choose diff CIDR range for each vpc)"

	Name	Resource ID	Resource Type	Region
<input type="radio"/>	IT-vpc	vpc-070155d7fb0d50b49	Vpc	us-east-2
<input type="radio"/>	hr-vpc	vpc-01ebe0efef1124acf	Vpc	us-west-1
<input type="radio"/>	finance-vpc	vpc-013ae9f695ad4ab5b	Vpc	ap-south-1
<input type="radio"/>	engg-vpc	vpc-09d13b7dfb6aeb2aa	Vpc	us-west-2

>>Once vpc is created then add 2 subnets to each vpc with one private and one public

--Create internet gateway and attach it to the each vpc

	Name	Resource ID	Resource Type	Region
<input type="radio"/>	it-igw	igw-0358643d636fd4860	Internet Gateway	us-east-2
<input type="radio"/>	hr-igw	igw-066915b1046610ffb	Internet Gateway	us-west-1
<input type="radio"/>	fin-igw	igw-048ad123a51820476	Internet Gateway	ap-south-1
<input type="radio"/>	engg-igw	igw-0ef4727144d903a00	Internet Gateway	us-west-2

>Go to transit gateway section and create 1 transit gateway for each region and note down the transit gateway ID

>Create transit gateway attachment and choose the TGW created for region and choose vpc and add the vpc created for the region u are in.

>Create another transit gateway attachment and choose "peering connection" this time and select the another region and add the TGW ID for that region.

	Name	Transit gateway attachment ID	Transit gateway ID	State	Resource t...	Resource ID
<input type="checkbox"/>	hr	tgw-attach-08f347dd27d805bde	tgw-00e083b02e4a138cf	Available	Peering	tgw-055723fd2
<input type="checkbox"/>	engg	tgw-attach-0a382383225b437d6	tgw-00e083b02e4a138cf	Available	Peering	tgw-0bbf8782c
<input type="checkbox"/>	finance	tgw-attach-0be52df5ca452bc89	tgw-00e083b02e4a138cf	Available	Peering	tgw-0ad8468bc
<input type="checkbox"/>	it	tgw-attach-03461a6e67eb0c803	tgw-00e083b02e4a138cf	Available	VPC	vpc-070155d7f

"REPEAT THIS PROCESS FOR ALL OTHER 3 REGIONS"

>>Go to transit gateway route table and select the route with your igw-id > choose routes > create static routes

The screenshot shows the AWS Management Console interface for Transit gateway route tables. The left sidebar has a red box around 'Transit gateway route tables'. The main panel shows a table of route tables with a red box around the 'Routes' tab. Below the table, there's a section for 'Transit gateway route tables: tgw-rtb-0296237d6c28f858d' with tabs for Details, Associations, Propagations, Prefix list references, Routes, and Tags. The 'Routes' tab is active, showing a list of routes with a red box around the 'Create static route' button.

--ADD CIDR FOR VPC's CREATED IN DIFFERENT REGIONS AND MAKE SURE TO SELECT CORRECT TGW attachment

VPC > Transit gateway route tables > tgw-rtb-0296237d6c28f858d > Create static route

Create static route Info

Add a static route to your transit gateway route table.

Details

Transit gateway ID
tgw-055723fd2b7bf1ebd

Transit gateway route table ID
rtb-0296237d6c28f858d

CIDR Info
0.0.0.0/0

Type Info
☒ Active
☐ Blackhole

Choose attachment
Select a transit gateway attachment

Cancel Create static route

"REPEAT THIS WITH ALL THE REGIONS"

>>GO to route table of your vpc and select the routing table for vpc created and click edit routes

aws Services Search [Alt+S] N. California Farsaan Siddiqui

VPC dashboard

EC2 Global View

Filter by VPC

Virtual private cloud

Your VPCs

Subnets

Route tables

Internet gateways

Egress-only internet gateways

DHCP option sets

Elastic IPs

Route tables (1/2) Info

Last updated less than a minute ago

Find resources by attribute or tag

Name	Route table ID	Explicit subnet associ...	Edge associations	Main	VPC
-	rtb-014f18a39be15d73c	-	-	Yes	vpc-01ebe0efef1124acf hr
-	rtb-0ce7a3569dbb2e0cb	-	-	Yes	vpc-03a4852e6a916bfe9

rtb-014f18a39be15d73c

Details Routes Subnet associations Edge associations Route propagation Tags

Routes (4)

Filter routes

Both Edit routes

>>ADD ALL THE CIDR RANGE IN THE ROUTE BY "ADD ROUTE" and SAVE CHANGES

VPC > Route tables > rtb-014f18a39be15d73c > Edit routes

Edit routes

Destination	Target	Status	Propagated
172.168.0.0/24	local	Active	No
182.168.0.0/24	Transit Gateway	Active	No
192.168.0.0/24	Transit Gateway	Active	No
10.0.0.0/24	Transit Gateway	Active	No

Add route

Cancel Preview Save changes

***NOTE: Add the Internet gateway to route table for public subnet**

CREATE 1 EC2 INSTANCE IN ALL DIFF REGIONS AND SELECT THE VPC CREATED

<make sure to create one ec2 with public subnet and rest 3 with private subnet>

Global search (4)
Perform a global search to search for specific resources across all Regions for which your account is enabled

Find resources by attribute or tag

Resource Type = Instance X Clear filters

	Name	Resource ID	Resource Type	Region
<input type="radio"/>	engg-ec2	i-0118f03dba1cee3fb	Instance	us-west-2
<input type="radio"/>	it-ec2	i-04e3d536bf1cc45c4	Instance	us-east-2
<input type="radio"/>	finance-ec2	i-0a43e1e5e3fa8ecc4	Instance	ap-south-1
<input type="radio"/>	hr-ec2	i-0d1c22f94452fabbd	Instance	us-west-1

<check for security group that it has inbound rule for all traffic with 0.0.0.0/0 rule>

Instances (1/1) Info
Last updated 1 minute ago

Find Instance by attribute or tag (case-sensitive)

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
<input checked="" type="checkbox"/>	hr-ec2	i-0d1c22f94452fabbd	Running	t2.micro	2/2 checks passed	View alarms +	us-west-1b

i-0d1c22f94452fabbd (hr-ec2)

Details Status and alarms Monitoring **Security** Networking Storage Tags

Security details

Inbound rules

Security group rule ID	Port range	Protocol	Source	Security group
sg-0bc1d70fcd80b145e	All	All	0.0.0.0/0	default
sg-0b3abdf1d40aa7e47	All	All	sg-05d30a14f219c43cf	default

>>NOW LOGIN THROUGH SSH WITH THE PUBLIC EC2 AND TRY TO PING ALL THREE EC2 "PRIVATE IP's"

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syedf@LAPTOP-AM5KM6HG:~$ ssh -i "ec2.pem" ec2-user@3.142.152.104
Last login: Thu Nov 14 07:06:13 2024 from 106.222.228.59
#_
~\#### Amazon Linux 2
~\#####
~\###|
~\#/
~V~'-'>
~..-
~\_/
~/m/'

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/

No packages needed for security; 2 packages available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-192-168-0-11 ~]$ ping 172.168.0.10
PING 172.168.0.10 (172.168.0.10) 56(84) bytes of data.
64 bytes from 172.168.0.10: icmp_seq=1 ttl=252 time=54.1 ms
64 bytes from 172.168.0.10: icmp_seq=2 ttl=252 time=52.3 ms
64 bytes from 172.168.0.10: icmp_seq=3 ttl=252 time=52.2 ms
^C
--- 172.168.0.10 ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2003ms
rtt min/avg/max/mdev = 52.288/52.910/54.106/0.886 ms
[ec2-user@ip-192-168-0-11 ~]$ ping 10.0.0.10
PING 10.0.0.10 (10.0.0.10) 56(84) bytes of data.
64 bytes from 10.0.0.10: icmp_seq=1 ttl=252 time=54.4 ms
64 bytes from 10.0.0.10: icmp_seq=2 ttl=252 time=50.5 ms
64 bytes from 10.0.0.10: icmp_seq=3 ttl=252 time=50.9 ms
^C
--- 10.0.0.10 ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2003ms
rtt min/avg/max/mdev = 50.521/51.972/54.438/1.772 ms
[ec2-user@ip-192-168-0-11 ~]$ ping 182.168.0.7
PING 182.168.0.7 (182.168.0.7) 56(84) bytes of data.
64 bytes from 182.168.0.7: icmp_seq=1 ttl=252 time=203 ms
64 bytes from 182.168.0.7: icmp_seq=2 ttl=252 time=200 ms
64 bytes from 182.168.0.7: icmp_seq=3 ttl=252 time=199 ms
64 bytes from 182.168.0.7: icmp_seq=4 ttl=252 time=199 ms
^C
--- 182.168.0.7 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3001ms
rtt min/avg/max/mdev = 199.770/200.834/203.029/1.428 ms
[ec2-user@ip-192-168-0-11 ~]$

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