

AdvArchOnAWS v3.9 Lab 2 Screenshots for Debugging

- Task 1: Connect to CommandHost and try to ping B, C, D
- Task 2: Create a Transit Gateway

VPC > Transit gateways > tgw-0570f7f0ee1f1af47

tgw-0570f7f0ee1f1af47 / maintransitgw [info](#) Actions

Details

Transit gateway ID tgw-0570f7f0ee1f1af47	Transit gateway ARN arn:aws:ec2:us-west-2:577261327578:transit-gateway/tgw-0570f7f0ee1f1af47	Owner ID 577261327578	Description -
State Available	Default association route table Disable	Default propagation route table Disable	Transit gateway CIDR blocks -
Amazon ASN 65001	Association route table ID -	Propagation route table ID -	Security Group Referencing support Disable
DNS support Enable	Auto accept shared attachments Disable	VPN ECMP support Disable	Multicast support Disable

- Task 3: Create Transit Gateway attachments - Repeat for vpc-a, vpc-b, vpc-c, vpc-d

You successfully created VPC attachment tgw-attach-0c34aa325598c6c97 / vpc-d.

Transit gateway attachments (4) [info](#) Actions Create transit gateway attachment

Find transit gateway attachment by attribute or tag

Name	Transit gateway attachment ID	Transit gateway ID	State	Resource type	Resource ID	Association route table ID
vpc-a	tgw-attach-0b8d77e05d4747fa9	tgw-0570f7f0ee1f1af47	Available	VPC	vpc-0ff7a9f63b52ea8ea	-
vpc-b	tgw-attach-089935be36c6ce8f2	tgw-0570f7f0ee1f1af47	Available	VPC	vpc-0f58b16546cb1ce78	-
vpc-c	tgw-attach-012db1a855f3490ca	tgw-0570f7f0ee1f1af47	Available	VPC	vpc-0a89600781e15067c	-
vpc-d	tgw-attach-0c34aa325598c6c97	tgw-0570f7f0ee1f1af47	Available	VPC	vpc-0b59a4b6975c89ca8	-

- Task 4: Create the Transit Gateway route table

You successfully created tgw-rtb-0c75525c2f579ebf9 / maintransitgw-rt.

Transit gateway route tables (1) [info](#) Actions Create transit gateway route table

Find transit gateway route table by attribute or tag

Name	Transit gateway route table ID	Transit gateway ID	State	Default association route table	Default propagation route table
maintransitgw-rt	tgw-rtb-0c75525c2f579ebf9	tgw-0570f7f0ee1f1af47	Available	No	No

- Task 4.1: Create route table associations – Repeat for vpc-a, vpc-b, vpc-c, vpc-d

VPC > Transit gateway route tables > tgw-rtb-0c75525c2f579ebf9

tgw-rtb-0c75525c2f579ebf9 / maintransitgw-rt [info](#) Actions

Details

Transit gateway route table ID tgw-rtb-0c75525c2f579ebf9	Transit gateway ID tgw-0570f7f0ee1f1af47	State Available	Default association route table No
Default propagation route table No			

Associations Propagations Prefix list references Routes Tags

Associations (4) [info](#) Delete association Create association

Find association by attribute or tag

Attachment ID	Resource type	Resource ID	State
tgw-attach-0b8d77e05d4747fa9	VPC	vpc-0ff7a9f63b52ea8ea	Associated
tgw-attach-0c34aa325598c6c97	VPC	vpc-0b59a4b6975c89ca8	Associated
tgw-attach-012db1a855f3490ca	VPC	vpc-0a89600781e15067c	Associated
tgw-attach-089935be36c6ce8f2	VPC	vpc-0f58b16546cb1ce78	Associated

- Task 4.2: Create route propagations – Repeat for vpc-a, vpc-b, vpc-c, vpc-d

VPC > Transit gateway route tables > tgw-rtb-0c75525c2f579ebf9

tgw-rtb-0c75525c2f579ebf9 / maintransitgw-rt [Info](#) Actions

Details

Transit gateway route table ID
tgw-rtb-0c75525c2f579ebf9

Transit gateway ID
tgw-0570f7f0ee1f1af47

State
Available

Default association route table
No

Default propagation route table
No

Associations **Propagations** Prefix list references Routes Tags

Propagations (4) [Info](#) Refresh Delete propagation Create propagation

Find propagation by attribute or tag

Attachment ID	Resource type	Resource ID	State
tgw-attach-012db1a855f3490ca	VPC	vpc-0a89600781e15067c	Enabled
tgw-attach-089935be36c6ce8f2	VPC	vpc-0f58b16546cb1ce78	Enabled
tgw-attach-0b8d77e05d4747fa9	VPC	vpc-0ff7a9f63b52ea8ea	Enabled
tgw-attach-0c34aa325598c6c97	VPC	vpc-0b59a4b6975c89ca8	Enabled

- Task 5: Update VPC route tables – Repeat vpc-a-public, vpc-b-private, vpc-c-private, vpc-d-private

Updated routes for rtb-0774570d20d5e8a71 / vpc-a-public successfully Details

VPC > Route tables > rtb-0774570d20d5e8a71

rtb-0774570d20d5e8a71 **vpc_a-public** Repeat for B-private, C-private, D-private... Actions

Details [Info](#)

Route table ID
rtb-0774570d20d5e8a71

Main
No

Explicit subnet associations
subnet-0f3ac3c8a0127a9c8 / vpc-a_public

Edge associations
-

VPC
vpc-0ff7a9f63b52ea8ea | vpc-a

Owner ID
577261327578

Routes Subnet associations Edge associations Route propagation Tags

Routes (3) [Filter routes](#) Both Edit routes

Destination	Target	Status	Propagated
0.0.0.0/0	tgw-00a92372c0a224c3e	Active	No
10.0.0.0/8	tgw-0570f7f0ee1f1af47	Active	No
10.1.0.0/16	local	Active	No

Different on VPC B, C, D

Only on VPC-a

- Task 5.1: Network validation – ping B, C, D works, But E fails
- Task 6: Create a peering connection to the remote region Transit Gateway
 - Task 6.1: Record the Transit Gateway ID of the Remote Region
 - Task 6.2: Create the Transit Gateway peering connection in the primary region

You successfully created peering attachment tgw-attach-018f637fd8d382a5d / remote-vpc-e.

Transit gateway attachments (5) [Info](#) Refresh Actions Create transit gateway attachment

Find transit gateway attachment by attribute or tag

Name	Transit gateway attachment ID	Transit gateway ID	State	Resource type	Resource ID	Association route table ID
remote-vpc-e	tgw-attach-018f637fd8d382a5d	tgw-0570f7f0ee1f1af47	Pending Acceptance	Peering	tgw-0c8cd837d4e70a520	-
vpc-a	tgw-attach-0b8d77e05d4747fa9	tgw-0570f7f0ee1f1af47	Available	VPC	vpc-0ff7a9f63b52ea8ea	tgw-rtb-0c75525c2f579ebf9
vpc-b	tgw-attach-089935be36c6ce8f2	tgw-0570f7f0ee1f1af47	Available	VPC	vpc-0f58b16546cb1ce78	tgw-rtb-0c75525c2f579ebf9
vpc-c	tgw-attach-012db1a855f3490ca	tgw-0570f7f0ee1f1af47	Available	VPC	vpc-0a89600781e15067c	tgw-rtb-0c75525c2f579ebf9
vpc-d	tgw-attach-0c34aa325598c6c97	tgw-0570f7f0ee1f1af47	Available	VPC	vpc-0b59a4b6975c89ca8	tgw-rtb-0c75525c2f579ebf9

Remote region ID

- Task 6.3: Accept the Transit Gateway peering request - remote region

Transit gateway attachments (1/2) [Info](#) Refresh Actions Create transit gateway attachment

Find transit gateway attachment by attribute or tag

Name	Transit gateway attachment ID	Transit gateway ID	State	Resource type	Association route table ID
remote-vpc-e	tgw-attach-018f637fd8d382a5d	tgw-0c8cd837d4e70a520	Pending Acceptance	Peering	-
vpc-e	tgw-attach-0c9fd5bfeef27a68	tgw-0c8cd837d4e70a520	Available	VPC	tgw-rtb-0f6d14a520

Accept transit gateway attachment

It could take 5-10 minutes for the peering connection to become available.

Transit gateway attachments (2) [info](#)

Find transit gateway attachment by attribute or tag

<input type="checkbox"/>	Name	Transit gateway attachment ID	Transit gateway ID	State	Resource type	Resource ID	Association route table ID
<input type="checkbox"/>		tgw-attach-018f637fd8d382a5d	tgw-0c8cd837d4e70a520	Available	Peering	tgw-0570f7f0ee1f1af47	-
<input type="checkbox"/>	vpc-e	tgw-attach-0c9fd5b6feef27a68	tgw-0c8cd837d4e70a520	Available	VPC	vpc-017d6d1d6e3838c99	tgw-rtb-0f6d14a5208664d96

Task 6.4: Update the route table association - remote region

VPC > Transit gateway route tables > tgw-rtb-0f6d14a5208664d96

tgw-rtb-0f6d14a5208664d96 / remote-rt [info](#)

Details

Transit gateway route table ID	Transit gateway ID	State	Default association route table
tgw-rtb-0f6d14a5208664d96	tgw-0c8cd837d4e70a520	Available	No
Default propagation route table			No

Associations | Propagations | Prefix list references | Routes | Tags

Associations (2) [info](#)

Find association by attribute or tag

<input type="checkbox"/>	Attachment ID	Resource type	Resource ID	State
<input type="checkbox"/>	tgw-attach-018f637fd8d382a5d	Peering	tgw-0c8cd837d4e70a520	Associated
<input type="checkbox"/>	tgw-attach-0c9fd5b6feef27a68	VPC	vpc-017d6d1d6e3838c99	Associated

Task 6.5: Update the Transit Gateway route table - remote region

VPC > Transit gateway route tables > tgw-rtb-0f6d14a5208664d96

tgw-rtb-0f6d14a5208664d96 / remote-rt [info](#)

Details

Transit gateway route table ID	Transit gateway ID	State	Default association route table
tgw-rtb-0f6d14a5208664d96	tgw-0c8cd837d4e70a520	Available	No
Default propagation route table			No

Associations | Propagations | Prefix list references | Routes | Tags

Filter routes by CIDR (2)

Exact CIDR	Longest prefix match	Supernet of match	Subnet of match
Select a valid IP4 or IPv6 CIDR. 0.0.0.0/0, ::/0	Enter a valid IP4 or IPv6 and press enter. 0.0.0.0, ::	Select a valid IP4 or IPv6 CIDR. 0.0.0.0/0, ::/0	Select a valid IP4 or IPv6 CIDR. 0.0.0.0/0, ::/0

Routes (2) [info](#)

Find route by attribute or tag

<input type="checkbox"/>	CIDR	Attachment ID	Resource ID	Resource type	Route type	Route state	Pre...
<input type="checkbox"/>	0.0.0.0/0	tgw-attach-018f637fd8d382a5d	tgw-0570f7f0ee1f1af47	Peering	Static	Active	-
<input type="checkbox"/>	10.0.0.0/16	tgw-attach-0c9fd5b6feef27a68	vpc-017d6d1d6e3838c99	VPC	Propagated	Active	-

○ Task 6.6: Update the VPC route table - **remote region**

Updated routes for rtb-035fb2b94fbeb14a / vpc_e-private successfully

Details

VPC > Route tables > rtb-035fb2b94fbeb14a

rtb-035fb2b94fbeb14a / **vpc_e-private**

Actions

Details Info

Route table ID
rtb-035fb2b94fbeb14a

Main
No

Explicit subnet associations
subnet-0799225537ba66f6 / vpc_e-private

Edge associations
-

VPC
vpc-017d6d1d6e3838c99 | vpc-e

Owner ID
577261327578

Routes Subnet associations Edge associations Route propagation Tags

Routes (2)

Filter routes

Destination	Target	Status	Propagated
0.0.0.0/0	tgw-0c8cd837d4e70a520	Active	No
10.0.0.0/16	local	Active	No

○ Task 6.7: Network validation – **ping E still fails**

- Challenge: Update the routes in the primary region so that the Command Host can ping HostE.

○ Update the Route Table Association for the Primary Region

VPC > Transit gateway route tables > tgw-rtb-0c75525c2f579ebf9

tgw-rtb-0c75525c2f579ebf9 / **maintransitgw-rt**

Actions

Details

Transit gateway route table ID
tgw-rtb-0c75525c2f579ebf9

Transit gateway ID
tgw-0570f7f0ee1f1af47

State
Available

Default association route table
No

Default propagation route table
No

Associations Propagations Prefix list references Routes Tags

Associations (5)

Find association by attribute or tag

Attachment ID	Resource type	Resource ID	State
tgw-attach-0b8d77e05d4747fa9	VPC	vpc-0ff7a9f63b52ea8ea	Associated
tgw-attach-0c34aa325598c6c97	VPC	vpc-0b59a4b6975c89ca8	Associated
tgw-attach-012db1a855f3490ca	VPC	vpc-0a89600781e15067c	Associated
tgw-attach-089935be36c6ce8f2	VPC	vpc-0f58b16546cb1ce78	Associated
tgw-attach-018f637fd8d382a5d	Peering	tgw-0570f7f0ee1f1af47	Associated

○ Update the Transit Gateway Route Table for the Primary Region

VPC > Transit gateway route tables > tgw-rtb-0c75525c2f579ebf9

tgw-rtb-0c75525c2f579ebf9 / **maintransitgw-rt**

Actions

Details

Transit gateway route table ID
tgw-rtb-0c75525c2f579ebf9

Transit gateway ID
tgw-0570f7f0ee1f1af47

State
Available

Default association route table
No

Default propagation route table
No

Associations Propagations Prefix list references **Routes** Tags

Filter routes by CIDR (2)

Exact CIDR
Select a valid IP4 or IPv6 CIDR.
0.0.0.0/0, ::/0

Longest prefix match
Enter a valid IP4 or IPv6 and press enter.
0.0.0.0, ::

Supernet of match
Select a valid IP4 or IPv6 CIDR.
0.0.0.0/0, ::/0

Subnet of match
Select a valid IP4 or IPv6 CIDR.
0.0.0.0/0, ::/0

Routes (5)

Find route by attribute or tag

CIDR	Attachment ID	Resource ID	Resource type	Route type	Route state	Prefix list ID
10.0.0.0/16	tgw-attach-018f637fd8d382a5d	tgw-0c8cd837d4e70a520	Peering	Static	Active	-
10.1.0.0/16	tgw-attach-0b8d77e05d4747fa9	vpc-0ff7a9f63b52ea8ea	VPC	Propagated	Active	-
10.2.0.0/16	tgw-attach-089935be36c6ce8f2	vpc-0f58b16546cb1ce78	VPC	Propagated	Active	-
10.3.0.0/16	tgw-attach-012db1a855f3490ca	vpc-0a89600781e15067c	VPC	Propagated	Active	-
10.4.0.0/16	tgw-attach-0c34aa325598c6c97	vpc-0b59a4b6975c89ca8	VPC	Propagated	Active	-

- Network Validation – ping to E now works

```

Session ID: 19455682-df54-4198-983a-4099c6c80b4-
vuidl77qkxy6hcygpxz6f38i Instance ID: i-07d54b46835e77ec2
64 bytes from 10.4.4.115: icmp_seq=2426 ttl=126 time=0.412 ms
64 bytes from 10.4.4.115: icmp_seq=2427 ttl=126 time=0.529 ms
64 bytes from 10.4.4.115: icmp_seq=2428 ttl=126 time=0.418 ms
64 bytes from 10.4.4.115: icmp_seq=2429 ttl=126 time=0.429 ms
64 bytes from 10.4.4.115: icmp_seq=2430 ttl=126 time=1.33 ms
64 bytes from 10.4.4.115: icmp_seq=2431 ttl=126 time=0.430 ms
64 bytes from 10.4.4.115: icmp_seq=2432 ttl=126 time=0.449 ms

```

- Task 7: Create route filters to blackhole for vpc B and D

VPC > Transit gateway route tables > tgw-rtb-0c75525c2f579ebf9

tgw-rtb-0c75525c2f579ebf9 **maintransitgw-rt** Actions

Details

Transit gateway route table ID tgw-rtb-0c75525c2f579ebf9	Transit gateway ID tgw-0570f7f0ee1f1af47	State Available	Default association route table No
Default propagation route table No			

Associations | Propagations | Prefix list references | **Routes** | Tags

▼ Filter routes by CIDR (2)

Exact CIDR Select a valid IP4 or IPv6 CIDR. 0.0.0.0/0, ::/0	Longest prefix match Enter a valid IP4 or IPv6 and press enter. 0.0.0.0, ::	Supernet of match Select a valid IP4 or IPv6 CIDR. 0.0.0.0/0, ::/0	Subnet of match Select a valid IP4 or IPv6 CIDR. 0.0.0.0/0, ::/0
--	--	---	---

Routes (7) info Find route by attribute or tag Actions Create static route

	CIDR	Attachment ID	Resource ID	Resource type	Route type	Route state	Prefix list ID
<input type="checkbox"/>	10.0.0.0/16	tgw-attach-018f637fd8d382a5d	tgw-0c8cd837d4e70a520	Peering	Static	Active	-
<input type="checkbox"/>	10.1.0.0/16	tgw-attach-0b8d77e05d4747fa9	vpc-0ff7a9f63b52ea8ea	VPC	Propagated	Active	-
<input type="checkbox"/>	10.2.0.0/16	tgw-attach-089935be36c6ce8f2	vpc-0f58b16546cb1ce78	VPC	Propagated	Active	-
<input type="checkbox"/>	10.2.2.0/24	-	-	-	Static	Blackhole	-
<input type="checkbox"/>	10.3.0.0/16	tgw-attach-012db1a855f3490ca	vpc-0a89600781e15067c	VPC	Propagated	Active	-
<input type="checkbox"/>	10.4.0.0/16	tgw-attach-0c34aa325598c6c97	vpc-0b59a4b6975c89ca8	VPC	Propagated	Active	-
<input type="checkbox"/>	10.4.4.0/24	-	-	-	Static	Blackhole	-

- Task 7.1: Network verification – ping to B and D now fail

- Task 8: Visualize and analyze your network (Optional) with Network Manager


○ Task 8.1: Visualize the network


Network Manager > Global networks > TGW-Network


TGW-Network


Overview | Details | Topology graph | Topology tree

Inventory
Network resources that are part of your global network.

 Edge locations
0

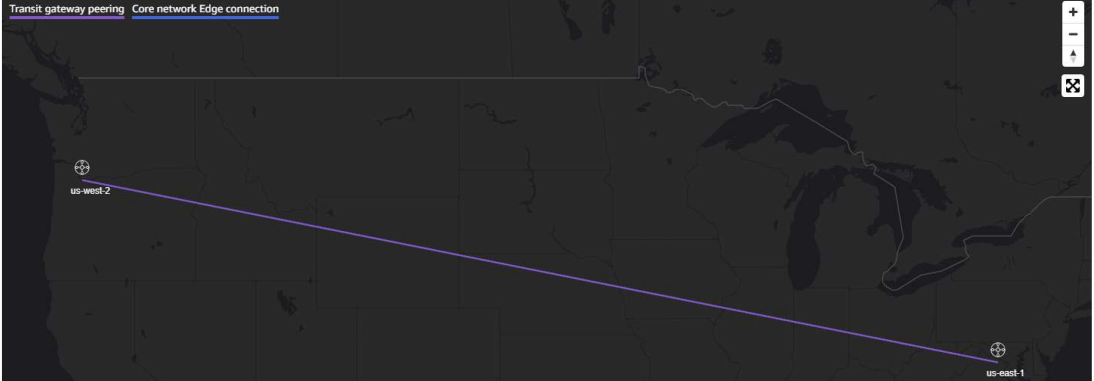
 Transit gateways
2

 Devices
0

 Sites
0

Geography

[Transit gateway peering](#) [Core network Edge connection](#)



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○ Task 8.2: Analyze a route

Network Manager > Global networks > TGW-Network > Transit gateway network > Route Analyzer

Overview | Geography | Topology tree | Events | Monitoring | **Route Analyzer**

TGW-Network Route Analyzer
The Route Analyzer analyzes the routing path between a specified source and destination. Note, Route Analyzer checks the routes on transit gateway route tables only. [Learn more](#)

Source
Transit gateway
maintransitgw
Transit gateway attachment
vpc-a
IP address
IPv4 or IPv6 address
10.1.1.112

Destination
Transit gateway
remote-tgw
Transit gateway attachment
vpc-e
IP address
IPv4 or IPv6 address
10.0.8.13

☒ Include return path in results
☐ Middlebox appliance? [Info](#)
If selected, state those that are known in the results

Run route analysis

Results of route analysis

The result of source and destination route is displayed here. You can update either the source and/or destination and re-run the analysis for updated results.



Forward path

Source	Destination	Status
tgw-attach-0b8d77e05d4747fa9	tgw-attach-0c9fd5b6feef27a68	Connected

Return path

Source	Destination	Status
tgw-attach-0c9fd5b6feef27a68	tgw-attach-0b8d77e05d4747fa9	Connected

