Task10

**Can transit gw connect to VPC between diff regions, and diff accounts?.**

Yes, a transit gateway can connect to a VPC in a different region and a different AWS account.

When you create a transit gateway, it becomes a regional resource and exists within a specific region. You can attach VPCs located in any region to the transit gateway as long as they are within the same AWS account or in a different account that has been authorized to share the transit gateway using resource sharing.

To connect a VPC in a different account to a transit gateway, you can use AWS Resource Access Manager (RAM) to share the transit gateway with the other account. Once the transit gateway is shared, the other account can attach its VPCs to the transit gateway.

It's worth noting that when you connect a VPC in a different region to a transit gateway, you will incur data transfer fees for traffic that crosses region boundaries. Additionally, there may be additional charges for using a transit gateway across different AWS accounts, depending on the specific use case and configuration.

**More information on this topic**

Connecting VPCs across regions:

To connect VPCs across regions using TGW, you need to create a Transit Gateway in one of the regions and then attach the VPCs from other regions to it. You can use the same TGW to connect multiple VPCs across different regions, and you can even create a full mesh connectivity pattern between the VPCs.

When creating the TGW, you need to specify the region where it will be created. Once created, you can attach VPCs from other regions to the TGW using VPC attachments. This involves creating a VPC attachment in the region where the VPC is located and then associating it with the TGW. You also need to configure route tables to allow traffic to flow between the VPCs that are connected to the TGW.

It's worth noting that when using a TGW to connect VPCs across regions, there is no additional data transfer cost, and you only pay for the resources used for the TGW itself.

Connecting VPCs across accounts:

To connect VPCs across accounts using TGW, you need to use AWS Resource Access Manager (RAM) to share the TGW resource between the accounts. This allows VPCs in different accounts to communicate with each other through the TGW.

To share a TGW using RAM, you need to create a resource share and specify the TGW as the resource to be shared. You can then invite other accounts to join the resource share and give them the necessary permissions to access the TGW. Once the other accounts have joined the resource share, they can attach their VPCs to the TGW and communicate with other VPCs that are connected to the same TGW.

When connecting VPCs across accounts, it's important to ensure that the necessary security and permissions are in place to ensure that only authorized traffic is allowed to flow between the VPCs. You can use AWS Identity and Access Management (IAM) to manage access to the TGW and the VPC attachments.