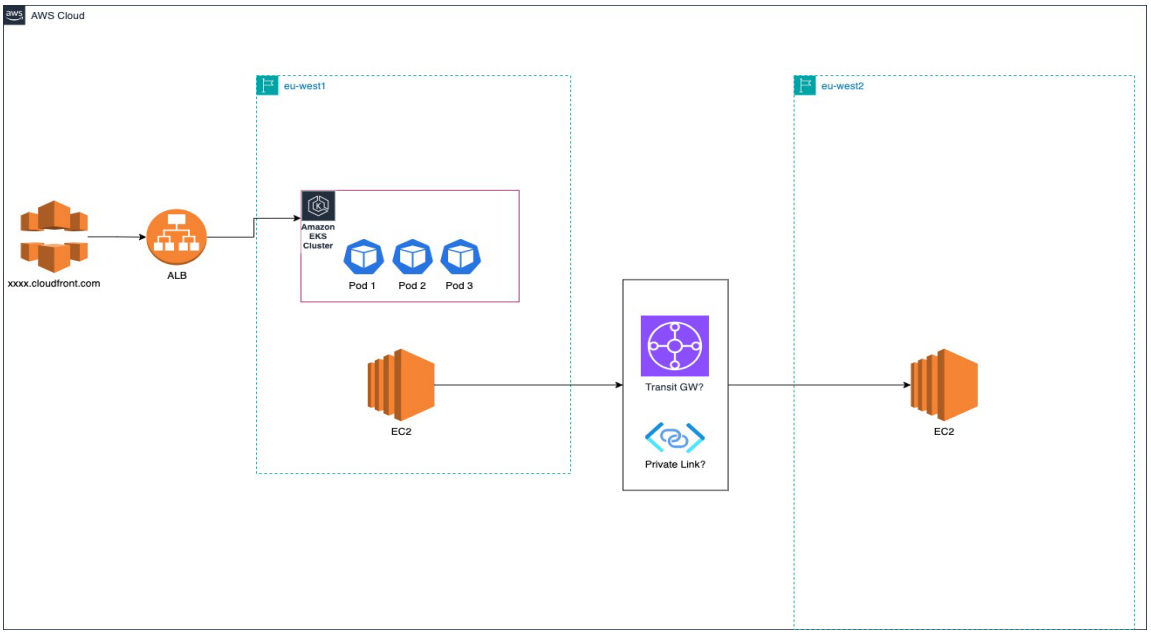

1. **<u>Cloud Infrastructure Setup:</u>**

   Task 1: Create a CloudFront Distribution:
   - Using Terraform, provision a CloudFront distribution. Specify the origin server (Application Load Balancer - ALB) and configure any additional settings required for your specific use case.

   Task 2: Connect CloudFront Distribution to an ALB:
   - Using Terraform, provision an ALB and configure it to handle incoming requests. Ensure proper security group settings for the ALB to allow traffic from CloudFront.

   Task 3: Deploy Kubernetes Cluster in eu-west-1:
   - Utilize Terraform to deploy an Amazon Elastic Kubernetes Service (EKS) cluster in the eu-west-1 region. Choose a simple web server Docker image that runs a web server capable of receiving API requests.

<u>2. Networking Configuration:</u>

<u>Task: Establish VPC Connectivity:</u>
Set up connectivity between two VPCs either via VPC private link or Transit Gateway (TGW). To demonstrate functionality, create EC2 instances in each VPC and verify connectivity using tools like netcat, telnet, or any other method you find suitable to ensure the network is correctly configured.

Bonus Points: Enhance Security:

- Implement network ACLs and security groups to restrict traffic flow between different components of the architecture.
- Enable encryption in transit and at rest
- Implement IAM roles and policies to control access to resources.
- Enable AWS WAF to protect against common web exploits.
- Implement logging and monitoring using services like AWS CloudWatch and CloudTrail.