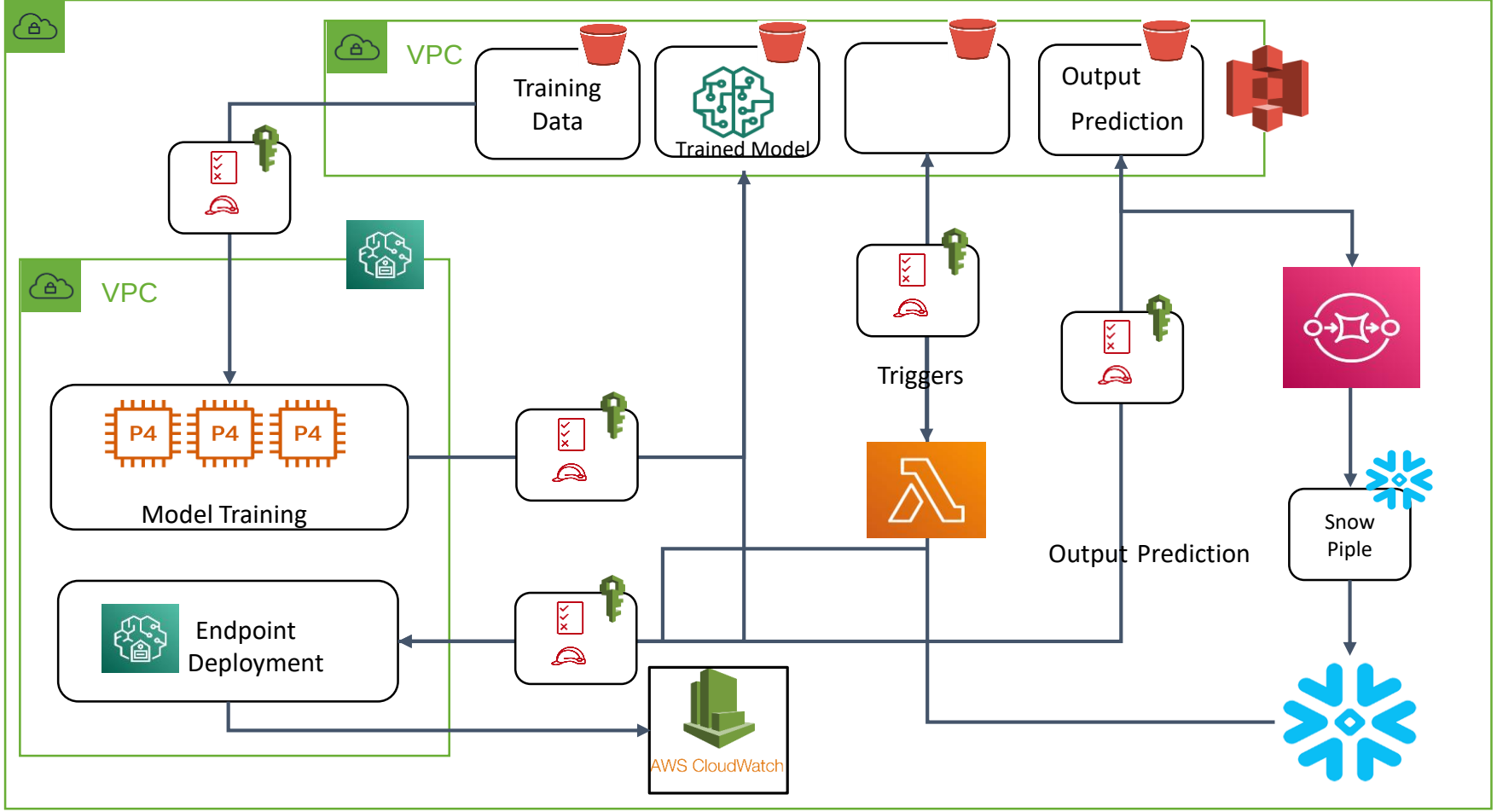
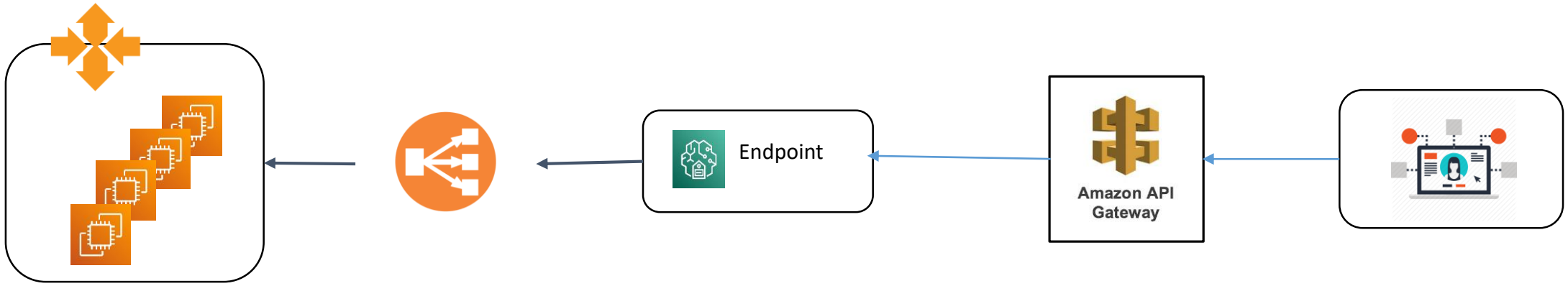


1. We can use some alternate solution for hosting the endpoint– Deploying the API on EKS by having a Load Balancer and multi AZ deployment
2. Using EKS it is cost efficient when compared to EC2



Sage Maker:

1. This helps in training the model based on a Machine learning Algorithm
2. It also gives a model endpoint for the end-user to have the prediction results of the data.

S3:

This can be used for storing the training data set, models, and prediction data.

We can create triggers on S3 to perform some action based on the incoming data, which gives us the flexibility of moving the data without manual interventions

SQS:

It is a message queue service, that can helps us creating serverless processing by performing moving the data or transformation using Lambda.

Security:

We can set different VPC zone with the AWS account based on the needs (Network ACL)

- VPC Security Group would help with the firewall for EC2
- Network ACL for VPC to the firewall for the external source.

Setting up the role-based access for various applications within AWS.

- We can set the policies, roles, and Permission using IAM
- We can restrict the user based on the access and application.

Monitoring:

We can use AWS cloud watch for monitoring the model performance and create metrics in Grafana

Another alternate is to install **Prometheus** on EC2 or EKS to capture the time series data and metrics on Grafana