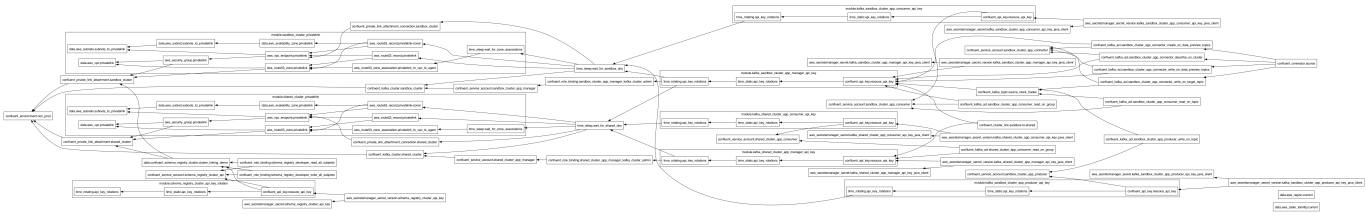
Confluent Cloud Infrastructure as Code (IaC) Cluster Linking with PrivateLink Demo

This repository provides production-grade Terraform infrastructure-as-code that models a multi-network Confluent Cloud deployment, demonstrating secure PrivateLink connectivity from a single Confluent Cloud environment to multiple AWS VPCs. It further showcases in-region Cluster Linking between two Confluent Cloud Kafka clusters, enabling low-latency, private, and fully managed inter-cluster data replication without public network exposure.

Below is the Terraform resource visualization of the infrastructure that's created:



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1.0 Resources

1.1 Terminology

- **PHZ**: Private Hosted Zone - AWS Route 53 Private Hosted Zone is a DNS service that allows you to create and manage private DNS zones within your VPCs.
- **TFC**: Terraform Cloud - A service that provides infrastructure automation using Terraform.
- **VPC**: Virtual Private Cloud - A virtual network dedicated to your AWS account.
- **AWS**: Amazon Web Services - A comprehensive cloud computing platform provided by Amazon.
- **CC**: Confluent Cloud - A fully managed event streaming platform based on Apache Kafka.
- **PL**: PrivateLink - An AWS service that enables private connectivity between VPCs and services.
- **IaC**: Infrastructure as Code - The practice of managing and provisioning computing infrastructure through machine-readable definition files.

1.2 Related Documentation

- AWS PrivateLink Overview in Confluent Cloud
- Use AWS PrivateLink for Serverless Products on Confluent Cloud
- GitHub Sample Project for Confluent Terraform Provider PrivateLink Attachment
- Geo-replication with Cluster Linking on Confluent Cloud