Networking

Document Level Classication

100

Substrate accounts, by default, have an Amazon Virtual Private Cloud (Amazon VPC) and associated resources (subnets, route tables, NAT gateways, internet gateways, etc.) provisioned and configured.

Components of a Substrate Network

- Subnets deployed across at least three Availability Zones (AZs).
- Internet Gateway to allow inbound traffic from the internet.
- NAT Gateways to allow outbound traffic to the internet.
- *Public* subnets intended for resources that receive inbound traffic from the internet.
- *NAT* subnets that allow outbound traffic to the internet (via the NAT Gateway) and other external (to the VPC) endpoints.
- *Private* subnets that are routable only within the VPC.

- Gateway VPC Endpoints for Amazon S3 and DynamoDB.
- Interface VPC Endpoints that provide connectivity to GitHub Enterprise, Artifactory and other common applications.
- Dedicated DNS zone and subdomain for the Substrate account.
- Service Network for private communication between other Substrate VPC's, OldProd, Epic Offices, and Epic VPN.

Network Architecture Diagram

This architecture diagram shows the networking components of a single of a dev account that's created. The same infrastructure is created for the live account as well.

Substrate Network Architecture with Service Network

This architecture diagram shows the networking components of a single availability zone of a dev account that's created and has been updated to use the Service Network. The same infrastructure is created for the live account as well.

Network Customization

A Substrate account is provisioned with the components listed above. Additional components and/or network routing is possible. To customize network configurations and architecture for your workloads, reach out via slack in #cloud-ops-support-ext.

Common use cases

Choose from the following topics to learn more about common use cases and tasks for your workloads:

- Advanced Networking for Substrate
- Managing inbound traffic to your application
- Managing outbound traffic from your application
- Managing traffic between applications in your Substrate cluster
- Accessing RDS Databases and EC2 Instances with Teleport
- Creating an ACM certificate in your Substrate account
- Controlling your Load Balancer in Kubernetes
- Service Network
- Using DNS in your Substrate Cluster
