

# The three architectural components of the SnapLogic platform

## 1. The Control Plane, a.k.a. the Designer, Manager and Dashboard



<https://elastic.snaplogic.com>



<https://uat.elastic.snaplogic.com>

## 2. The Data Plane, a.k.a. Snaplex



## 3. Snaps



Core Snaps



Enterprise Snaps



Custom Snaps

# The Control Plane, a.k.a. the Designer, Manager and Dashboard



<https://elastic.snaplogic.com>

Production site



<https://uat.elastic.snaplogic.com>

User Acceptance test site, made available approx. 3 weeks before a platform release

The back-end management mechanism for the SnapLogic IIP. The Control Plane runs on the cloud as a multi-tenant service, stores Pipeline definitions and metadata information, while also managing triggered and scheduled Pipeline executions.

# The Data Plane, a.k.a. Snaplex

A Snaplex is the data processing engine of the SnapLogic platform

It is made up of nodes, nodes are containers, or virtual machines or “real” hardware based servers

A minimum of two nodes per Snaplex are required for production use

A Snaplex is only available to one org

It is horizontally and vertically scalable, to add more capacity, add more nodes, or increase the node size

When it is provided by SnapLogic as a service it is a Cloudplex

Cloudplexes are single tenant and single org

When it is located in the customer domain it is called a Groundplex

Customers download a container, or provision virtual machines or “real” servers to host the SnapLogic application

Once installed Groundplexes are managed remotely by the SnapLogic Control Plane



A Cloudplex is a Snaplex running in

the SnapLogic Integration Cloud

All Cloudplexes run inside the

SnapLogic Integration Cloud.

Customers use the Manager

and the Monitoring Dashboard to

administer their Cloudplex.

The SnapLogic DevOps

team administers the infrastructure

key performance indicators (KPIs).

Cloudplexes are not customizable.

Cloudplexes support cloud to cloud

integrations



A Groundplex is a Snaplex running in the customer domain

Customers who need domain access to on premises

resources (such as SAP, Oracle, Microsoft Dynamics AX)

will need a Groundplex, which in most cases runs behind the firewall.

They can be deployed in:

- Private or virtual private data centers

- Amazon VPC, Azure VN or Google cloud

Groundplexes can be docker containers deployed in an AWS hosted Kubernetes cluster to support elastic scaling

Groundplexes are managed remotely by the SnapLogic Control Plane.

Groundplexes support ground to ground, ground to cloud and cloud to ground integrations

# Snaplex nodes and Load Balancers

## Nodes

A Snaplex node is a server or container capable of running the Snaplogic application

A standard node is 2vCPU/8GB RAM/40GB disk

Nodes are licensed as either production or sandbox (non-production)

### 1. Execution nodes

Execution nodes are where pipelines/integration job run

### 2. Feedmaster nodes

Feedmaster nodes are http listeners that receive, cache and respond to messages

All plexes will contain one or more nodes.

A plex that contains one or more Feedmaster nodes must have, at least the same number or more of Execution nodes

Feedmaster nodes are required to support listener Ultra task use cases, consumer or reader Ultra task use cases do not require Feedmasters

Ultra tasks are an optional platform feature for high volume, low latency message processing

## Load Balancers

Triggered tasks that use cloud URLs and scheduled tasks are automatically load balanced by the Control Plane

Load Balancers are required for two use cases

1. Ultra tasks that use a feedmaster node
2. Triggered tasks that use local URLs

## Load Balancers in Cloudplexes and Groundplexes

Load Balancers are provided, and supported by SnapLogic for Cloudplexes

Customers must provide and manage their own Load Balancers for all Groundplexes

Load balancers are classic layer two type.

# Snaps

Snaps are task specific software components that abstract the methods required to, connect, parse, transform, route, format and deliver data.

Snaps are grouped into Packs, by function, Transform, Route, etc, or by API, REST, SOAP, databases, message queues, streaming services and applications

There are over 600 snaps in the 4.26 release, more are added every quarterly release.

Everything in SnapLogic is a Snap, you do not write code, you define the parameters of what you want the snap to do using one or more of the following, string literals, pipeline parameters, document values, pipeline instance metadata.



Included in the base subscription of the platform

## Core Snaps



Two tiers of Snaps to connect to a variety of applications, technologies and SAS providers

## Enterprise Snaps



Customers and partners are able to create custom Snaps using the SnapAPI. There is no charge for the SDK or use of Custom Snaps

## Custom Snaps

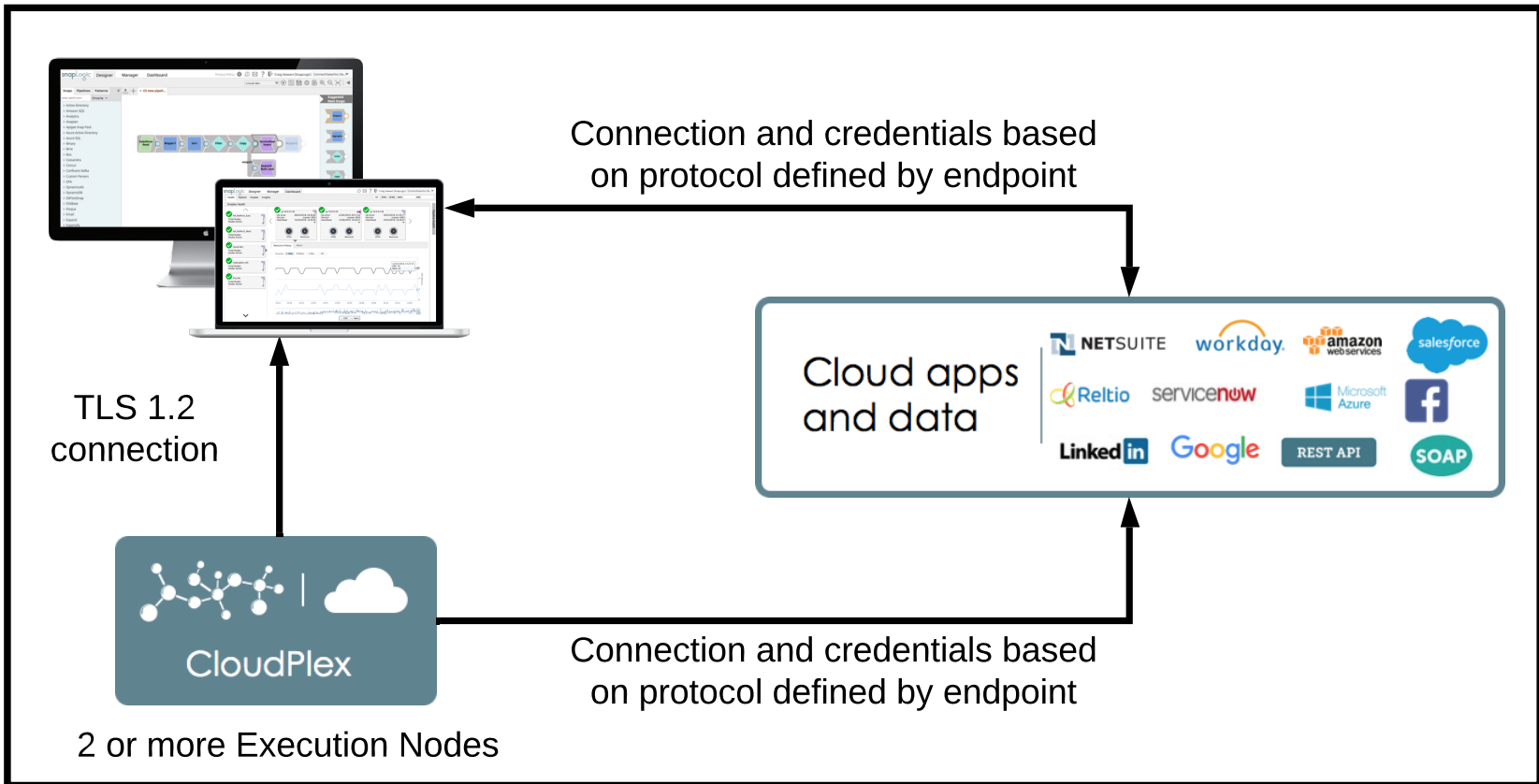


Snap Logic Professional Services develops and supports custom snaps for partners and customers who need a custom Snap, but do not want to support it and maintain it. We provide the same SLAs for these as we do for the core snaps.

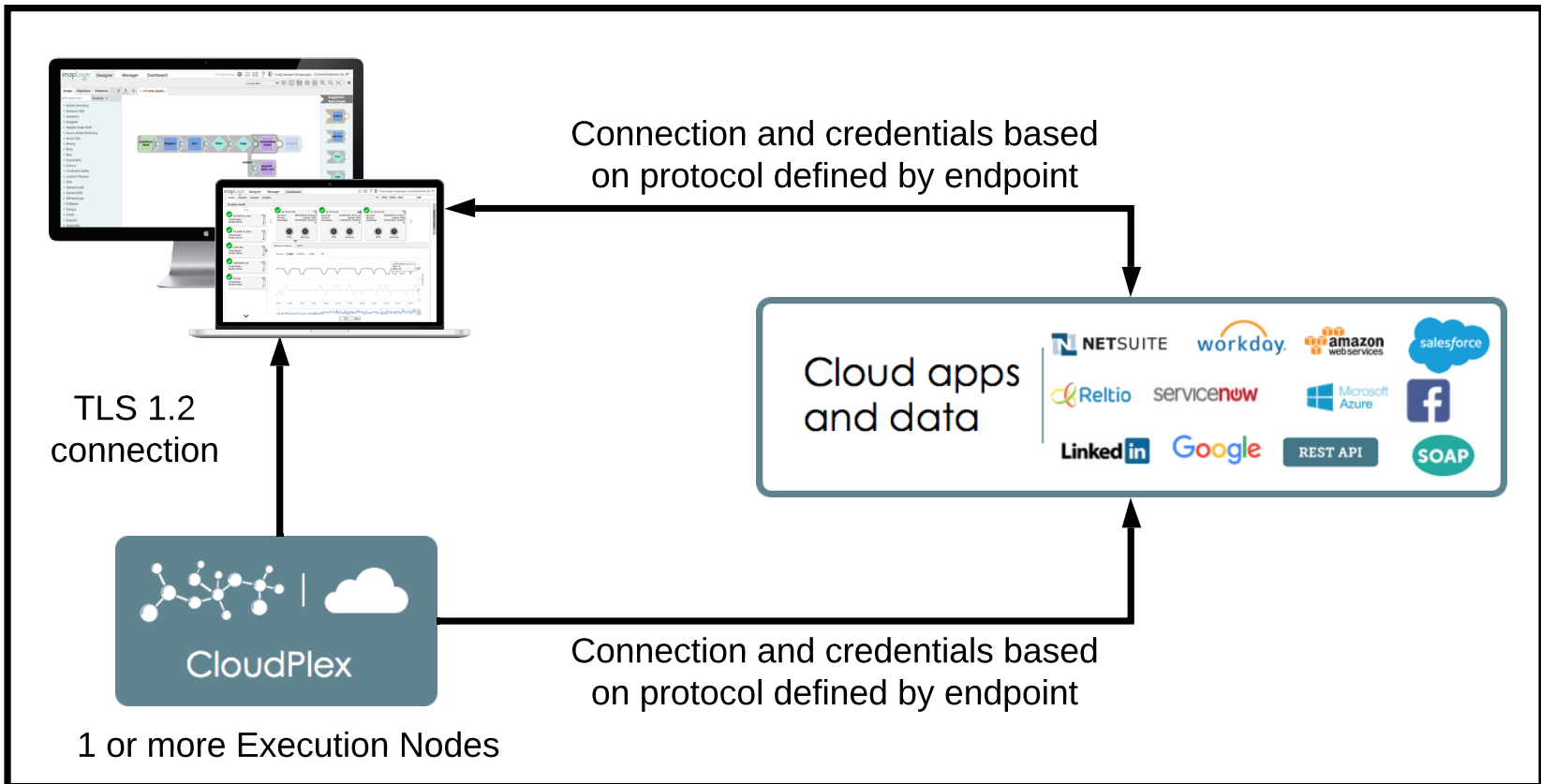
## PS Snaps

Entry level cloud to cloud

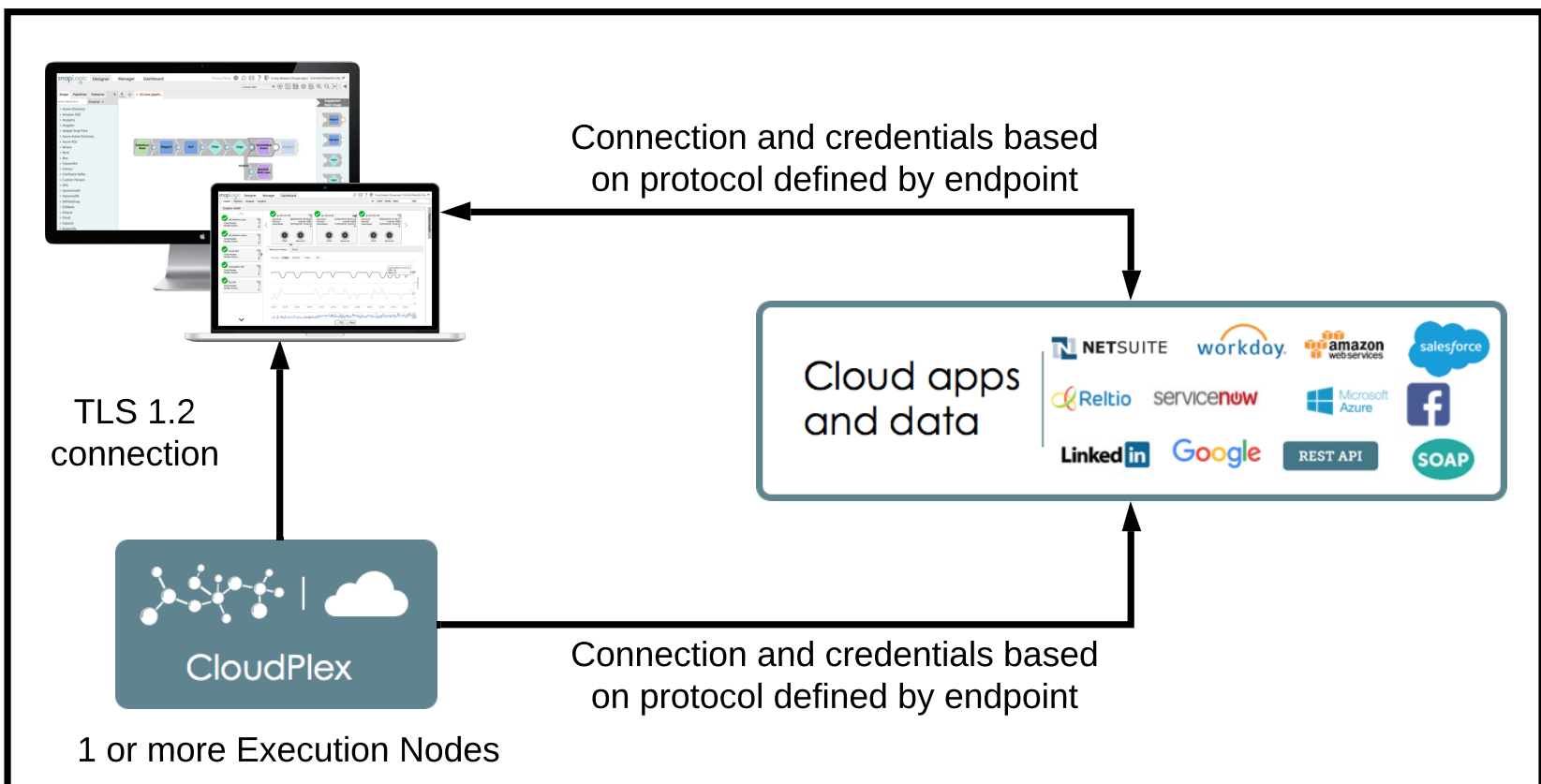
Production Org



Test/QA Org

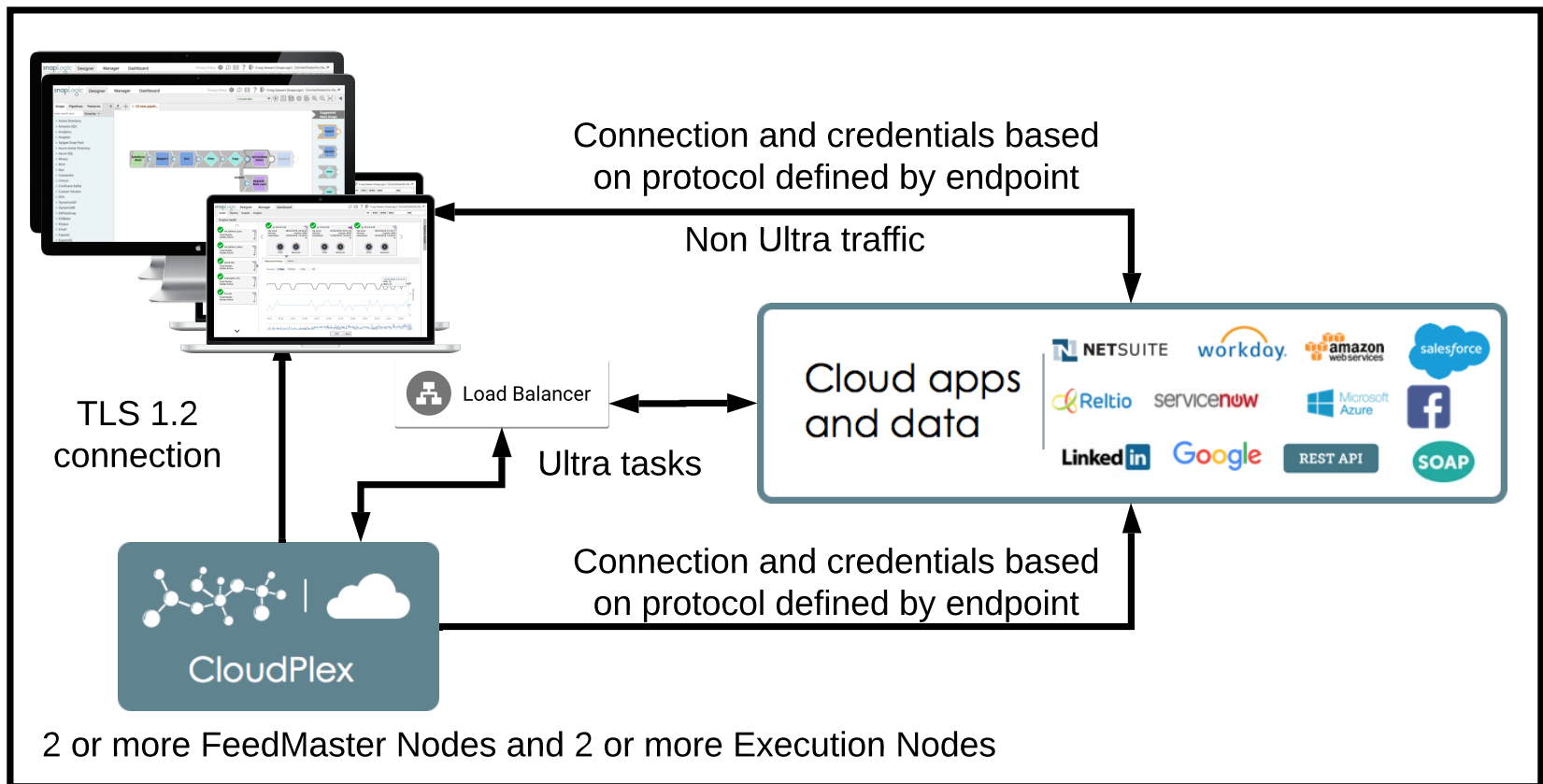


Development Org

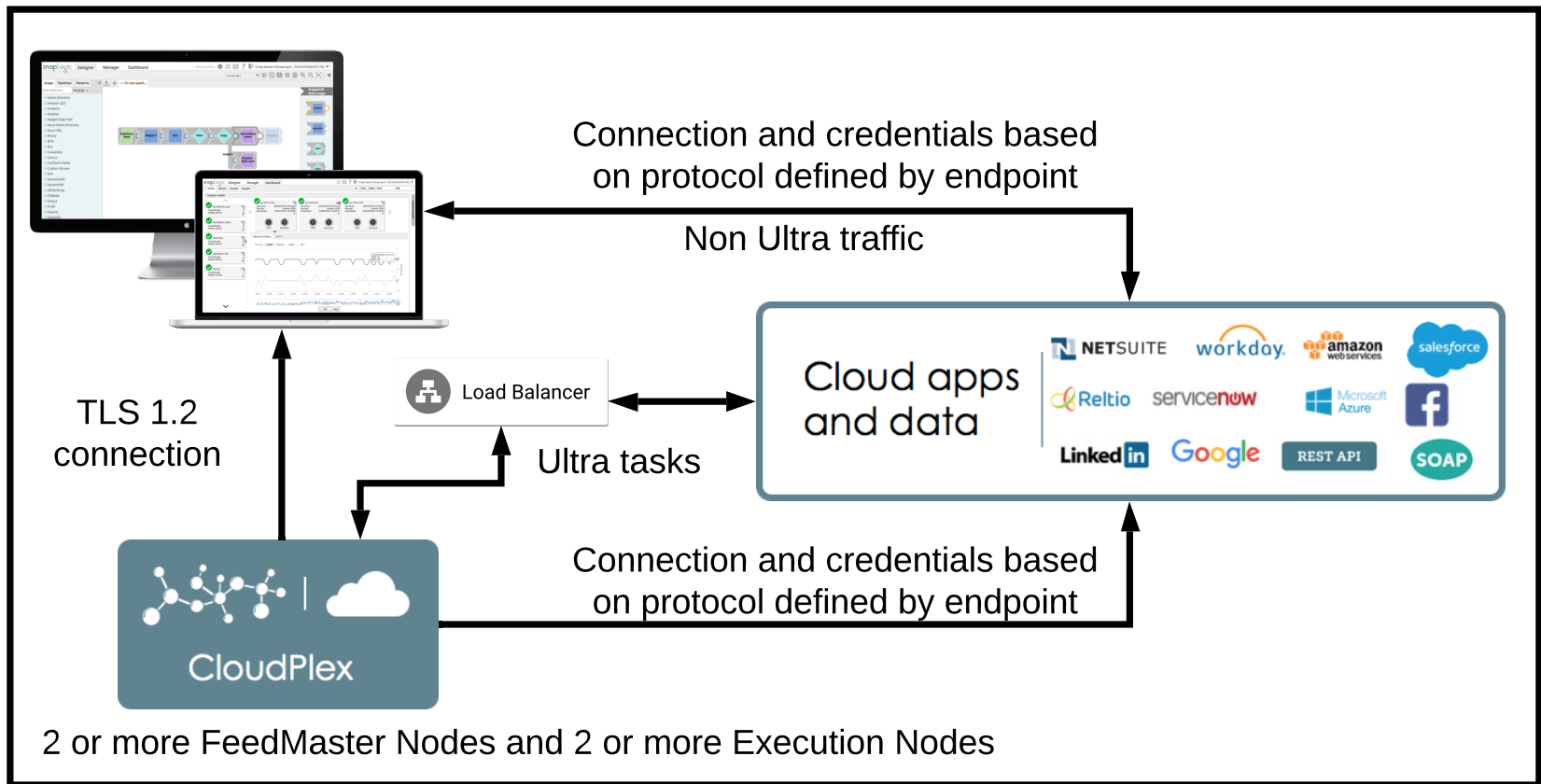


# Cloud to cloud with Ultra

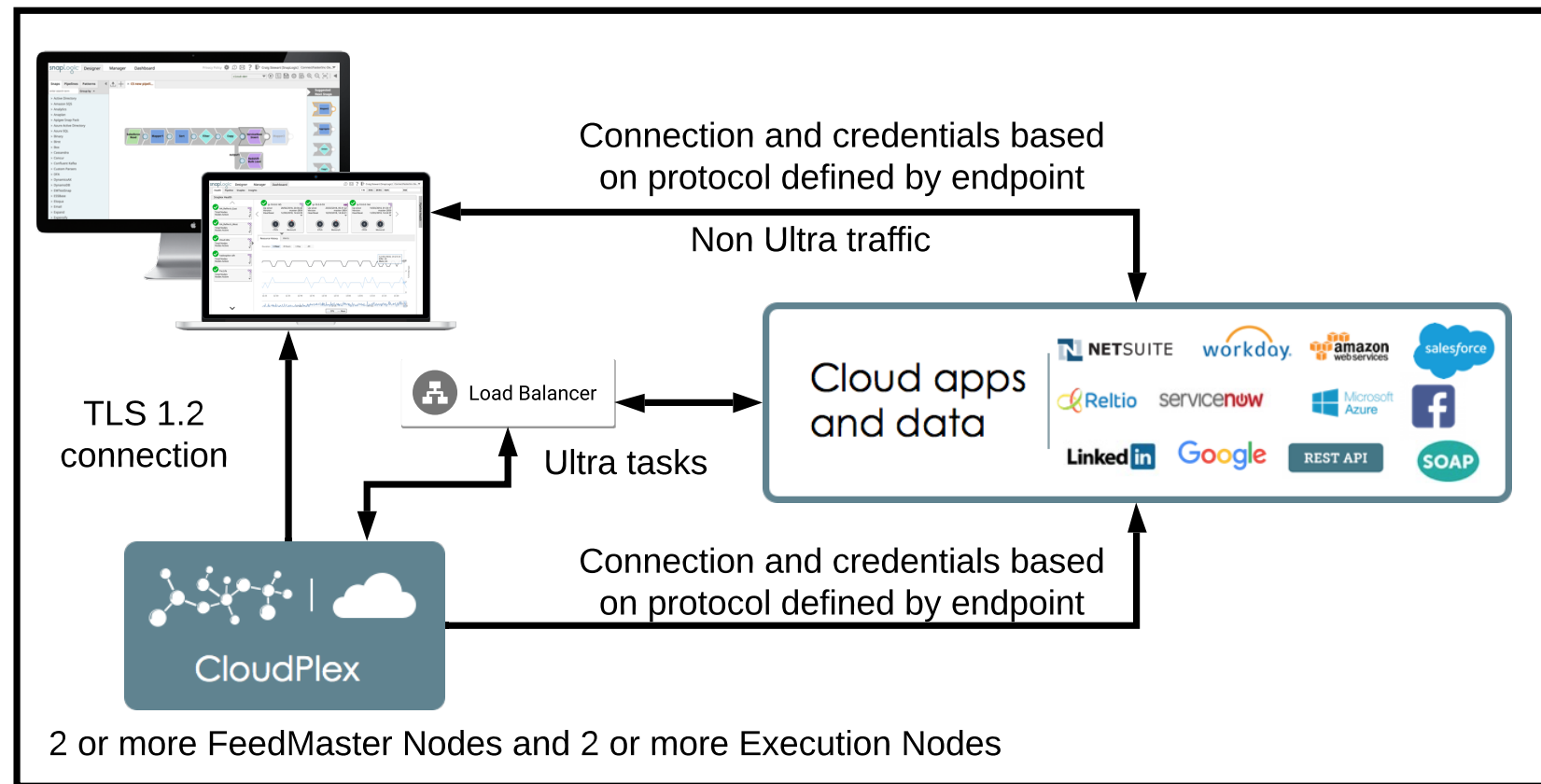
## Production Org



## Test/QA Org

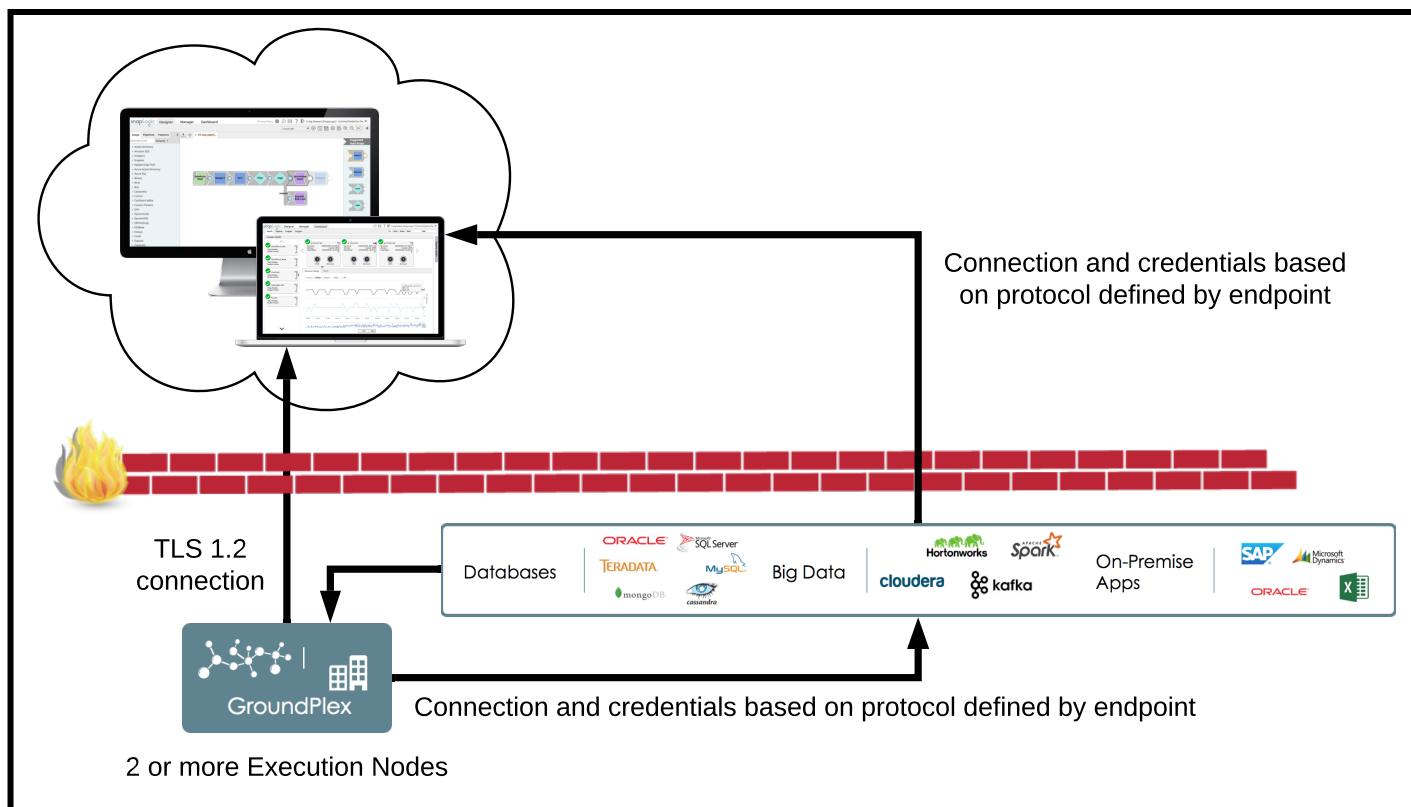


## Development Org

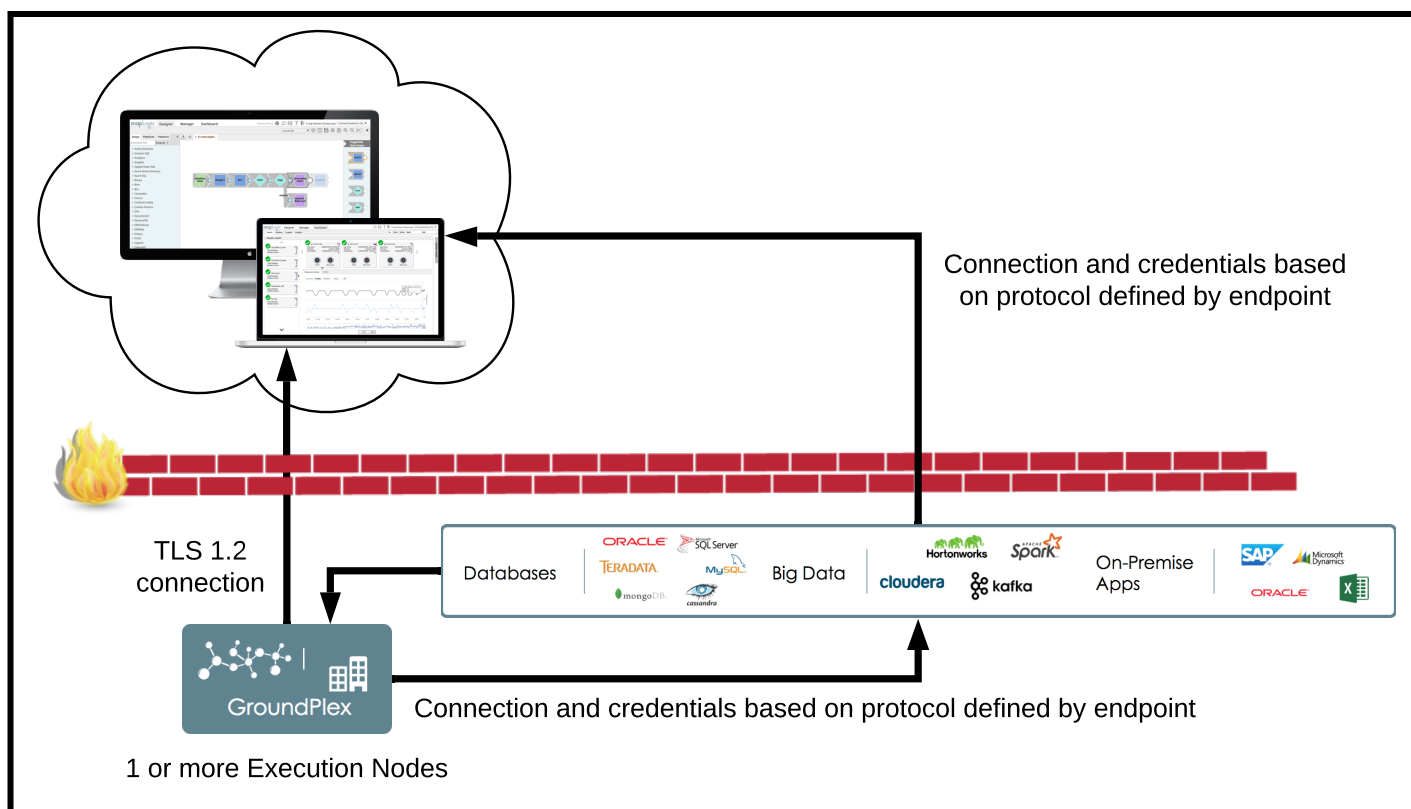


# Entry level Ground to Ground (single site)

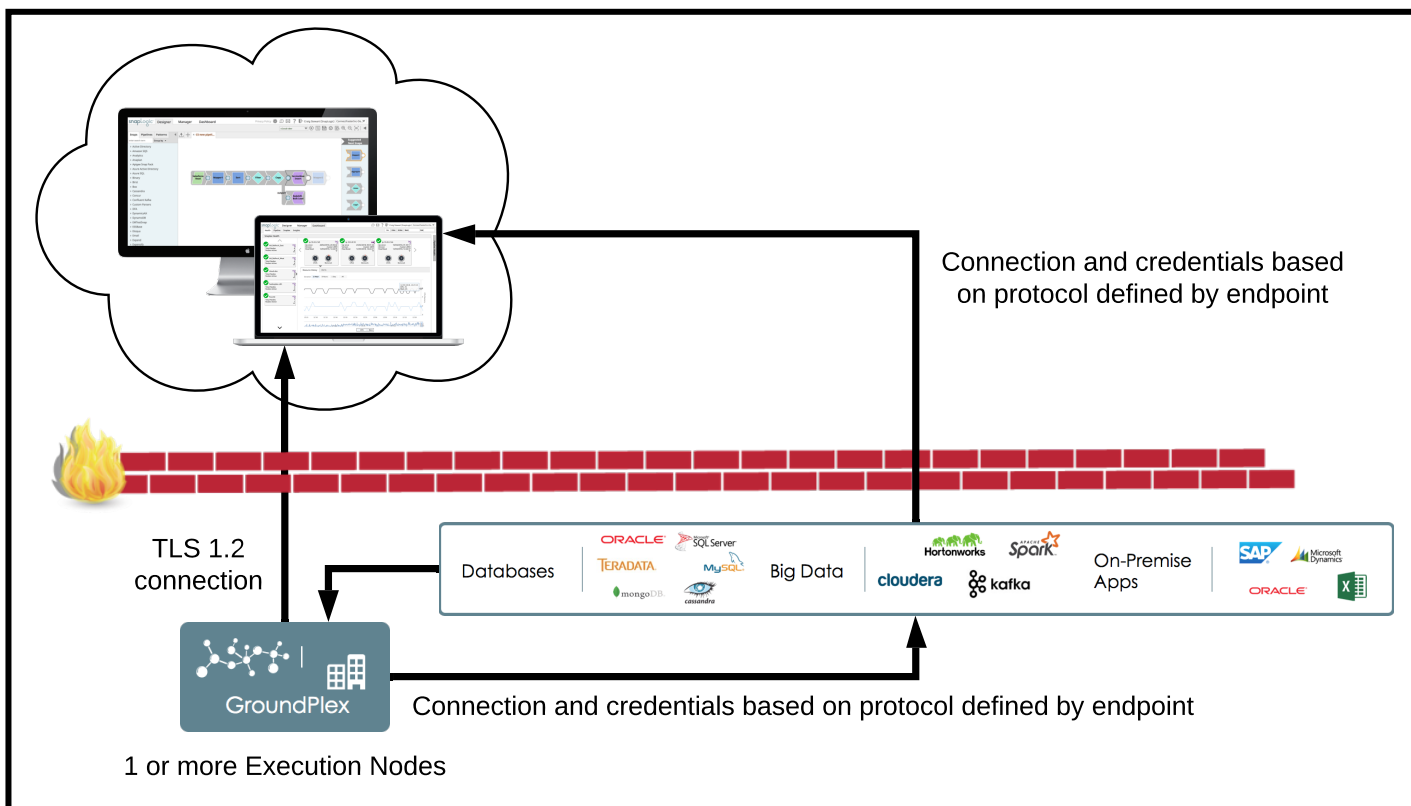
## Production Org



## Test/QA Org



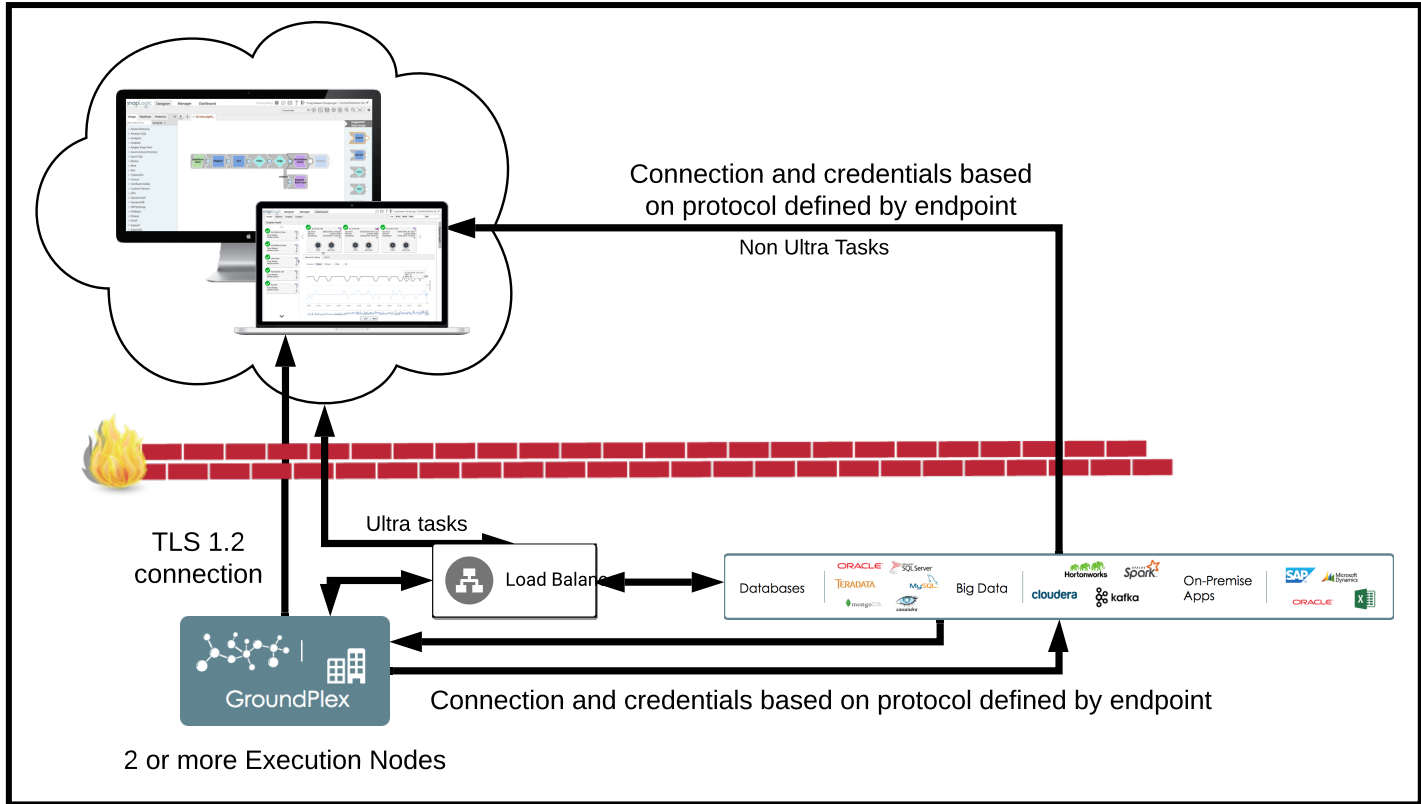
## Development Org



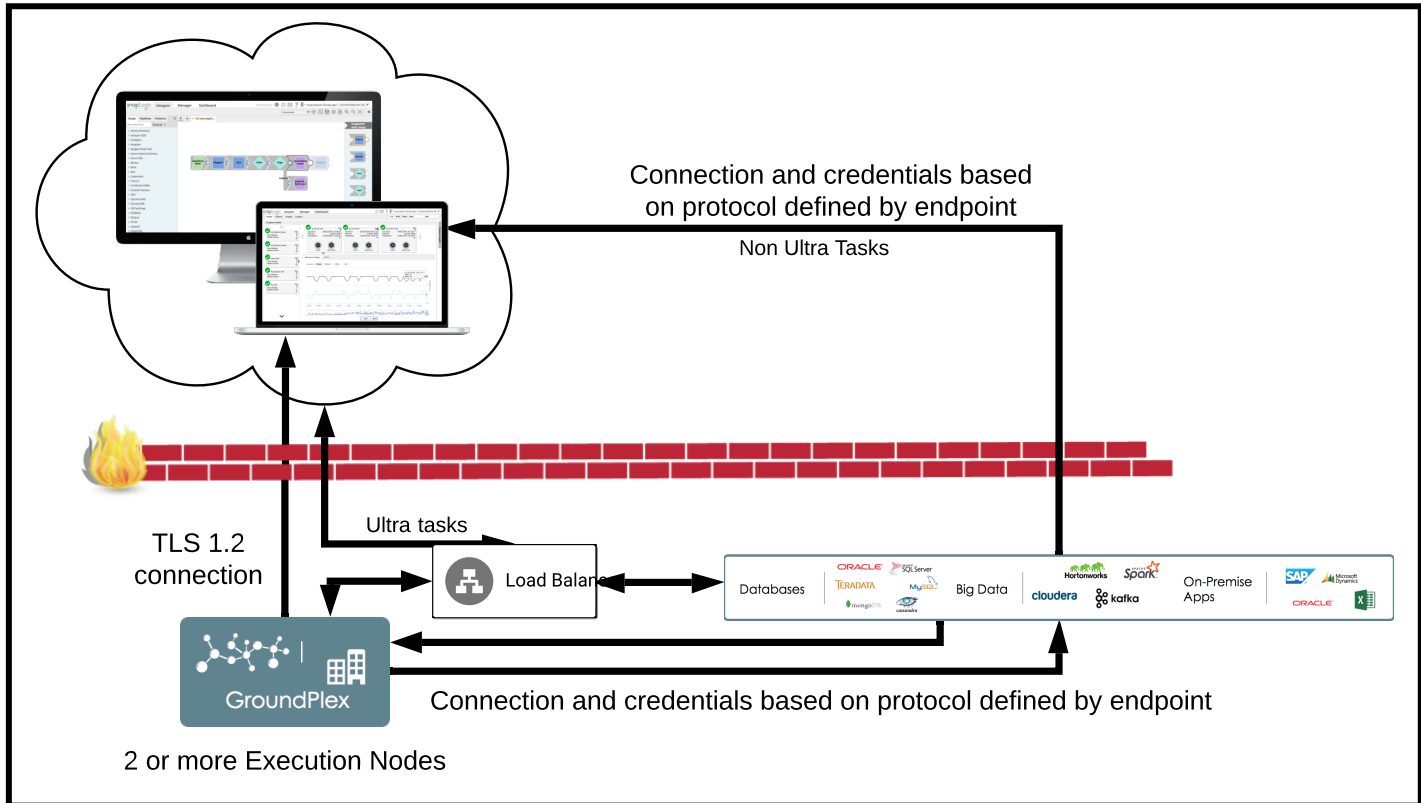


# Ground to Ground (single site) with Ultra

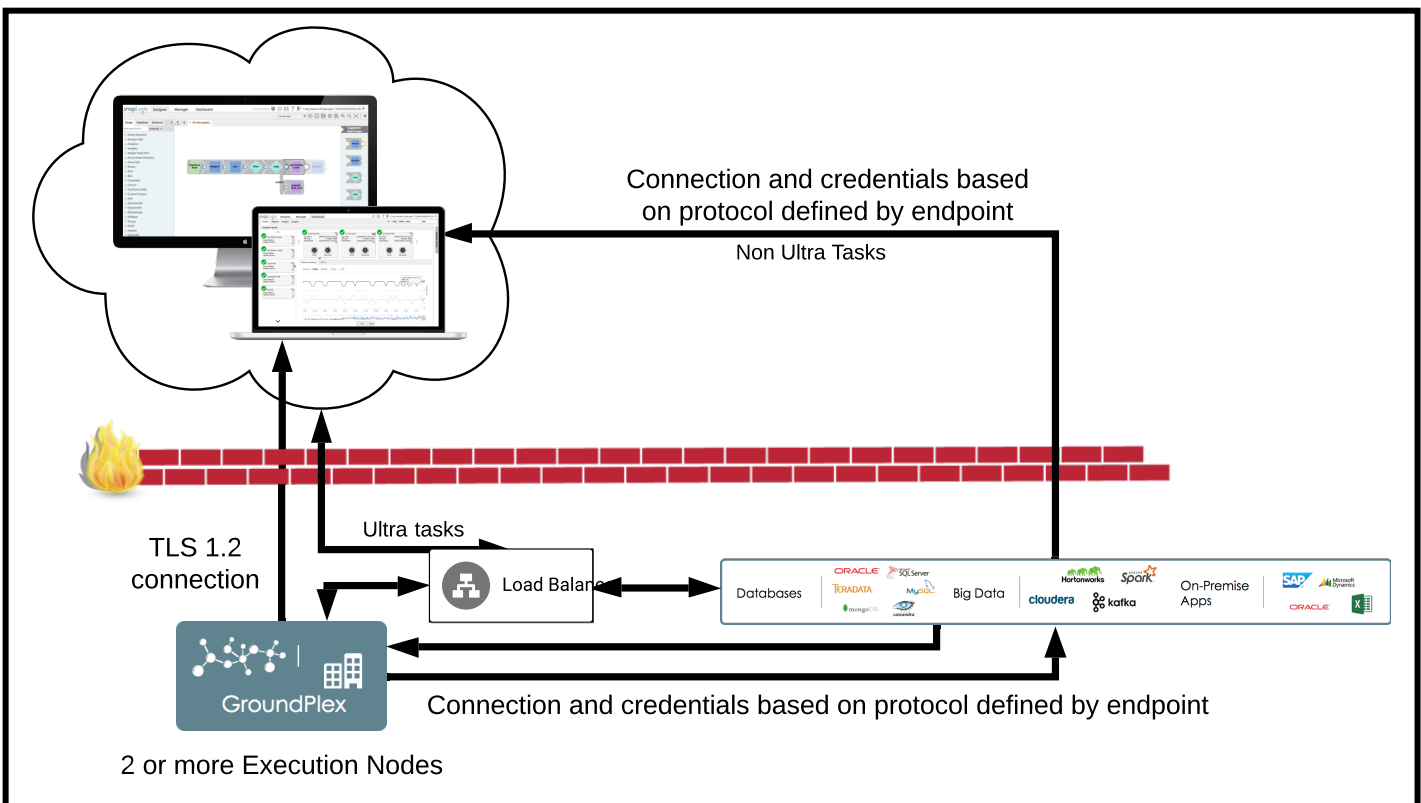
## Production Org

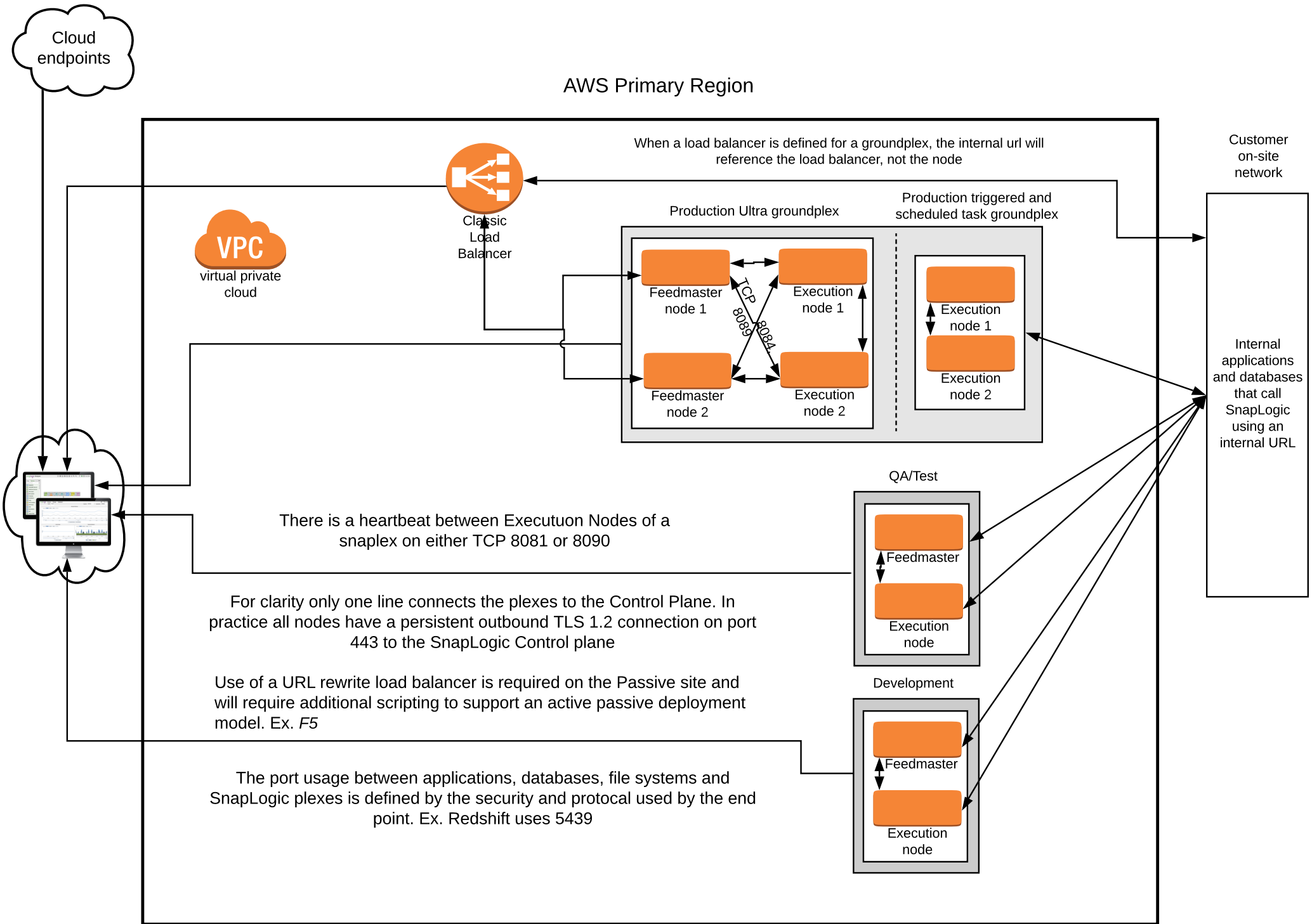


## Test/QA Org



## Development Org





AWS Primary Region

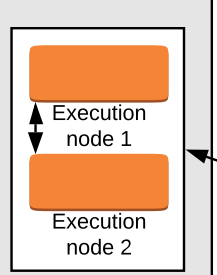
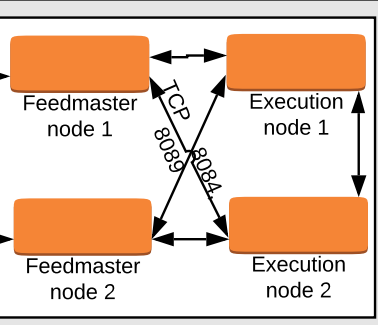
When a load balancer is defined for a groundplex, the internal url will reference the load balancer, not the node

VPC  
virtual private cloud

Classic Load Balancer

Production Ultra groundplex

Production triggered and scheduled task groundplex



Customer on-site network

Internal applications and databases that call SnapLogic using an internal URL

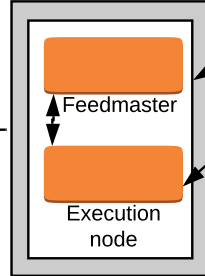
There is a heartbeat between Execution Nodes of a snaplex on either TCP 8081 or 8090

For clarity only one line connects the plexes to the Control Plane. In practice all nodes have a persistent outbound TLS 1.2 connection on port 443 to the SnapLogic Control plane

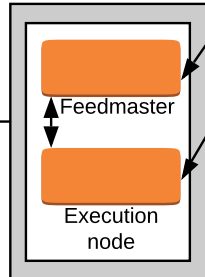
Use of a URL rewrite load balancer is required on the Passive site and will require additional scripting to support an active passive deployment model. Ex. F5

The port usage between applications, databases, file systems and SnapLogic plexes is defined by the security and protocol used by the endpoint. Ex. Redshift uses 5439

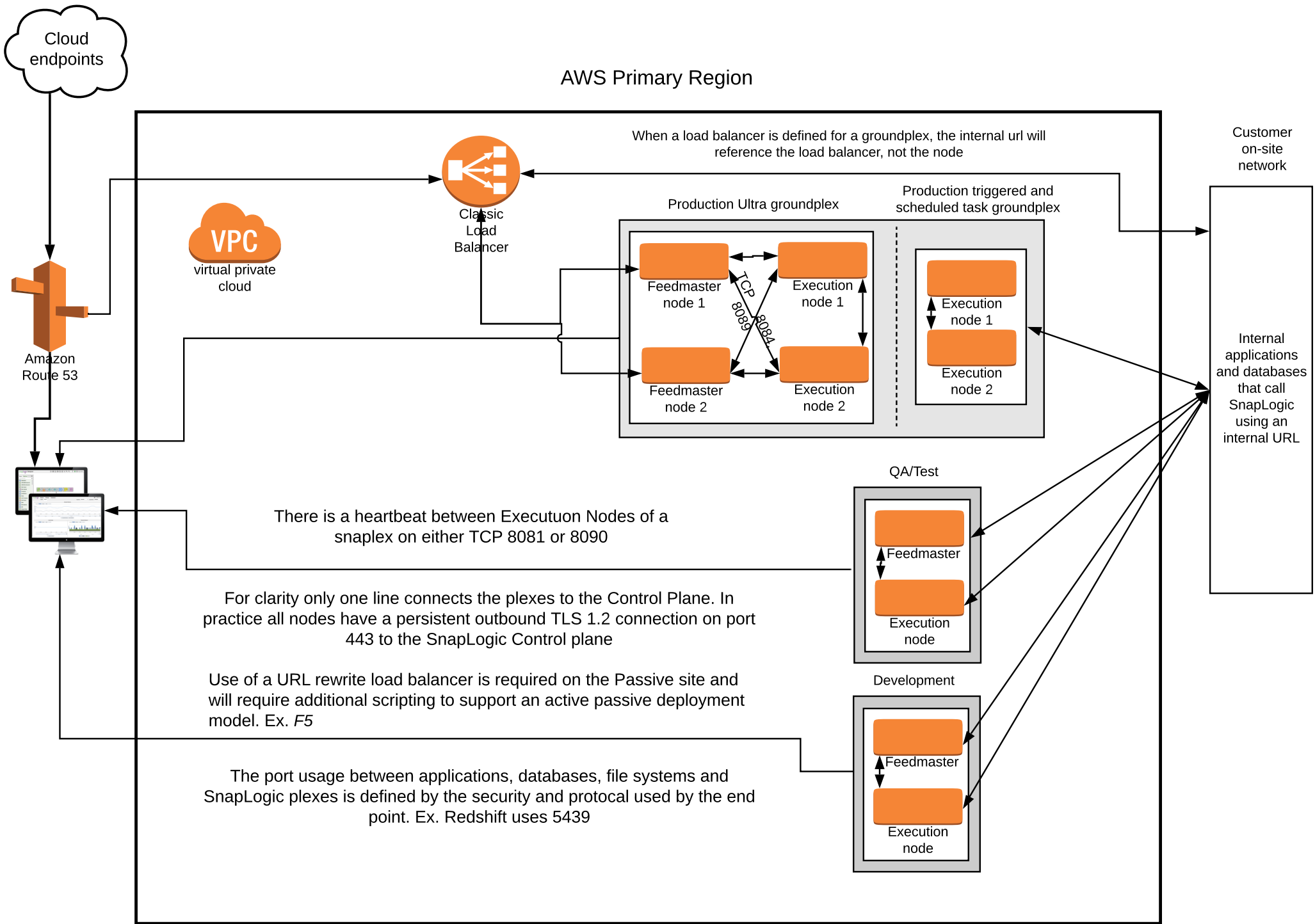
QA/Test



Development



The large box defines everything deployed in the AWS VPC



The large box defines everything deployed in the AWS VPC. The DR site has mirror image of the primary site.