



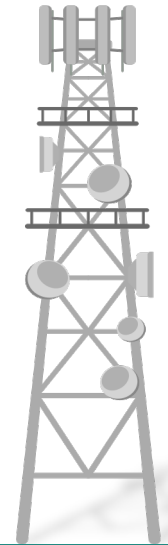
Company Portfolio

Edge Orchestration

May 2022

A complete platform for Serving Enterprises & Telco's

COREEDGE



Core



Edge



Four Driver of Open RAN Success

- **COTS hardware including accelerators** – selecting the right hardware platform and environment.
- **Cloud native architecture** –realizing RAN functions as microservices in containers over bare metal servers using [cloud native](#) technologies such as Kubernetes and applying DevOps principles.
- **Management, orchestration and automation** - bringing end-to-end life cycle management of services across Cloud RAN, transport, [5G core](#) and underlying [cloud infrastructure](#).
- **RAN programmability** – deploying non-RAN functions in the virtualized system to add new functionality and additional value.



Edge Application – Considerations



Large Number of Edge Clouds

- Network edge clouds could be in the order of 10,000
- On-Premise edge clouds could be in the order of 100,000



Large Number of App Instances

- CNF, IoT, Analytics, and Cloud Native apps in the order of 1,000
- With network slicing the instances in the order of 10,000



Dynamic Changes

- Connectivity challenges with dynamic deployments – Service Mesh, firewall/NAT auto configuration
- Termination will also be critical as edge resources are precious



Complex Geo Distributed Apps

- Geo distributed apps to span multiple clouds: edge, core, public etc.
- Complex networking & security configs for geo-distributed apps

Operational Requirements

App-agnostic, full automation of orchestration and lifecycle management

- Fully intent based
- Bring up Apps in new Edges/Clusters with no user intervention.
- Mass Upgrades.
- Support for Helm Chart based deployments and K8s Operator based deployments.

Monitoring, analytics, and real-time “policy driven” closed loop automation



Challenges– *'Set of different Fabrics'*

Poor Experience/ No unified experience

- Missing single pane of glass- different cloud have different interface and process
- No way to monitor or know-how user experience would be

Operational Complexity

- Different skillset for different cloud- manual operation & Learning curve cost-inefficient
- Enterprise workload management across different clouds

Lack of Automation

- No automation between multiple cloud for workload management
- Challenges with Day 0,1, 2 Operations for Infrastructure, monitoring and managing resource usage

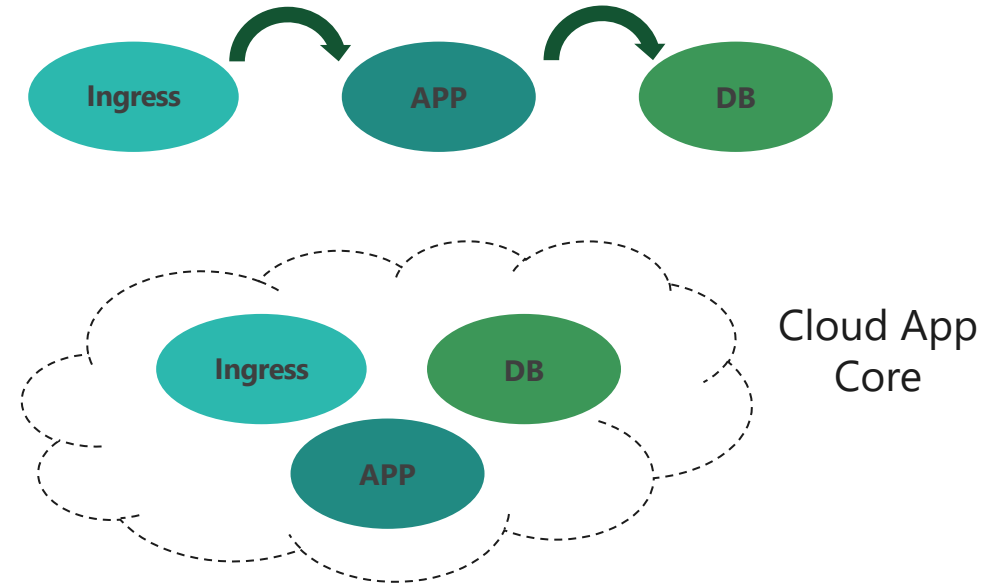
Orchestrate Multi-cluster (Hybrid Public Private cloud environments)

- Managing, connecting and rollout end-to-end solutions is time consuming, prone to errors and a large piece of work
- Managing Life Cycle of these deployed solutions
- Infrastructure and application compatibility

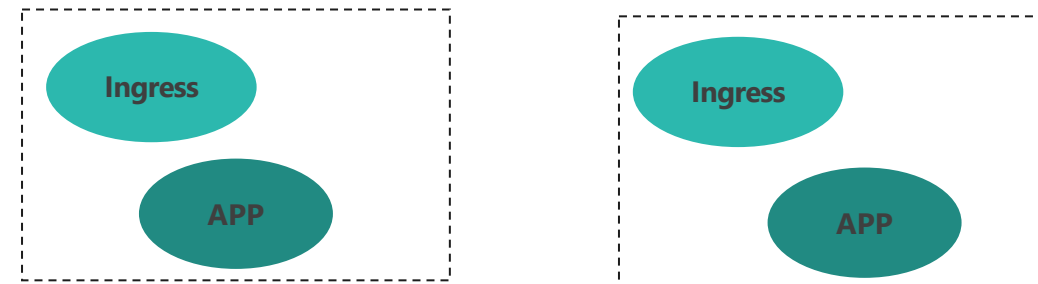


Intent Based Orchestration

- Don't need to define all conditions but only intents connecting resource requirements for application is enough
- Define Once use anywhere
 - Dev / Test / Production
- Handle different models
 - Distributed Ingress – Edge Local Break Out
 - Site to Site instance connection
 - Centralized Ingress – Single pane of glass for Configuration / Observability / debugging
- Certify and validate cluster configuration to be able to support deployment of specific application following required model



App distributed Edge deployment



Cloud Compass as SMO



- Infrastructure Management
- Application Orchestration
- Uniform RBAC
- Certification and Application acceptance policy enforcement
- Observability & Telemetry
- Closed loop automation
- Day 2 Operations

Applications
Private 5G, CDN, IOT,ORAN

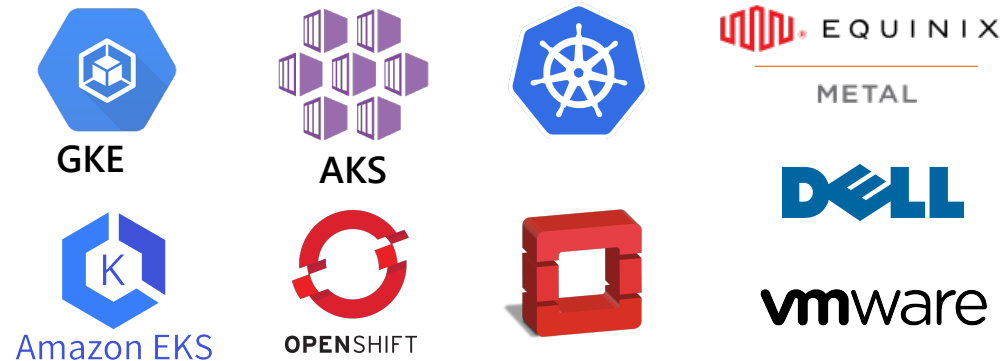
UXBench

- Pro-actively check user experience
- Visibility into service capability at different locations

NETWORK



INFRASTRUCTURE



Data Lakes



About Us

Accelerating the Edge Computing Movement

Enterprise-grade Modern Platforms to Address Orchestration and Management Requirements of Telecom and Hyperlocal Cloud and Edge Infrastructure



THANK YOU

