Infrastructure Engineering

The frictionless foundation behind Adobe's products, delivering resilient, secure, and efficient infrastructure that powers innovation

Cloud Management

Cloud Management is designed to address gaps in financial processes and tools to ensure better cost management and capacity management.

Features

- **Cost Efficiency:** Reduce cloud spend by targeting resource optimization and waste elimination.
- **Forecasting:** Enhancing the accuracy of budget predictions for annual and quarterly planning cycles.
- **Capacity management:** Managing the infrastructure capacity for developer platforms.
- **Cost Allocation:** Ensuring that all developer platform costs are transparent & allocated to Bus

Processes & Tools

- **Cost Optimization tools:** Real-time insights into resource usage and associated costs
- **Forecasting Module:** Predictive analytics for annual and quarterly budge planning & forecasting
- **Chargeback & Showback System:** Transparent models aligned with resource utilization.
- **Cluster Utilization:** Optimize and reduce operational overhead and ensure cost efficiency

Ethos Platform

Ethos is Adobe's unified infrastructure and software development platform designed to standardize and accelerate web services delivery

Features:
- **100% Upstream Kubernetes:** N-2 Upgrade relese schedule
- **Multi-cloud/Hybrid Cloud:** AWS, Azure, Openshift and Adobe private datacenter
- **Cost Efficient, Performant and Scalable:** 99.95 availability. + compute on demand + Cost Attribution
- **Multi-cluster Enablement:** Seamless HA

Key Benefits:
- Self-service provisioning for rapid deployment
- Bring your own CI/CD or Integrated pipelines and tooling for developer efficiency
- Built-in compliance and security controls "as-a-service"
- Consolidated infrastructure platforms solving common challenges once for all teams

Cluster Gateway

Cluster Gateway is a cloud-native API gateway integrated directly into Ethos clusters, designed to optimize API and service delivery with unparalleled performance, scalability, reliability, and cost efficiency.

- **Advanced Routing Capabilities:** Enable precise traffic control with **Request Routing Policies**, **RegEx Support** and **Metadata Interpolation**.
- **Multi-Layer Token and API Key Validation:** Ensure secure access with **OAuth validation** for offline tokens, **API Key validation**, and **multi-token support**.
- **Performance and Scalability:** Optimize traffic management with **throttling and rate-limiting.**
- **Easy to Customize and Extend:** Adapt to unique needs with **Façade support, JSON Path validation**, and **external validation**.

Adobe I/O Runtime

Adobe I/O Runtime is Adobe's serverless computing platform, designed to execute functions triggered by events or HTTP requests at scale. Built on Kubernetes and optimized for low-latency execution, Runtime dynamically provisions resources to meet demand while minimizing cold starts and operational overhead.

Features:
- **Dynamic Autoscaling:** Utilizes reactive and reserved concurrency scaling algorithms to adjust execution capacity in real time, optimizing for performance, cost, and unpredictable workloads.
- **App Builder:** Provides a complete developer experience with CLI tooling, prebuilt libraries, and project scaffolding to simplify serverless action creation, testing, and deployment.
- **Global Deployment:** Operates across multiple AWS regions in active-active mode with health checks to ensure high availability and automatic failover.

Rivet

A self-service paved path to build cloud infrastructure.

Features:
- Enables Developers to ship their products faster
- Built-in Adobe security and compliance policies
- Built-in observability and operational best practices

Use Cases:
- Provision a Cache/Storage and/or a Database for a Service
- Create a VPC/Vnet connection from Ethos Cluster(s) to a cloud resource
- Ensure that Security policies are applied on cloud resources.
- Ensure that we receive alerts when Db becomes unresponsive.

Slack Channel: #guild-rivet