Kong THE **CLOUD CONNECTIVITY** COMPANY

Kong Mesh Traffic Observability with Datadog

Webinar

DATADOG

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Welcome

Daniel Maher

Developer Evangelist, Datadog

Claudio Acquaviva

Solutions Architect, Kong

Agenda

- Kong Mesh Overview and typical policies including mTLS, Traffic Route, Traffic Permission and Traffic Log
- Exploring the Datadog monitoring and observability for APIs and microservices.
- Demos
  - Monitoring Microservice deployment in Kong Mesh using Datadog.
  - Observing Service Mesh consumption.
- Q&A

Accelerate Your Journey to Decentralization

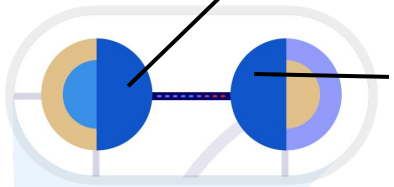
Increase pace of innovation, gain new revenue streams, and lower TCO

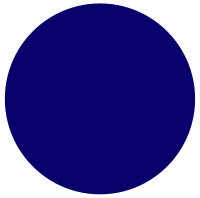
Support yesterday, today and tomorrow
through flexible platform

Become technology agnostic
across any cloud, orchestrator, platform or protocol

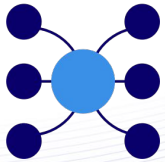
Fast and seamless scale
through lightweight proxies

Instantly add policies
via out-of-the-box plugins

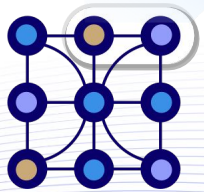




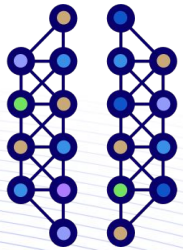
MONOLITH
1 Service



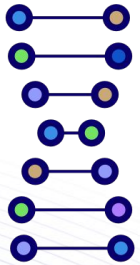
SERVICES
5 Services



MICROSERVICES
100+ microservices



SERVICE MESH
1,000+ microservices
in a service mesh



EMERGING PATTERNS
1,000,000+
functions in
serverless

Single source of truth
with declarative configuration
of Kubernetes and Gateways

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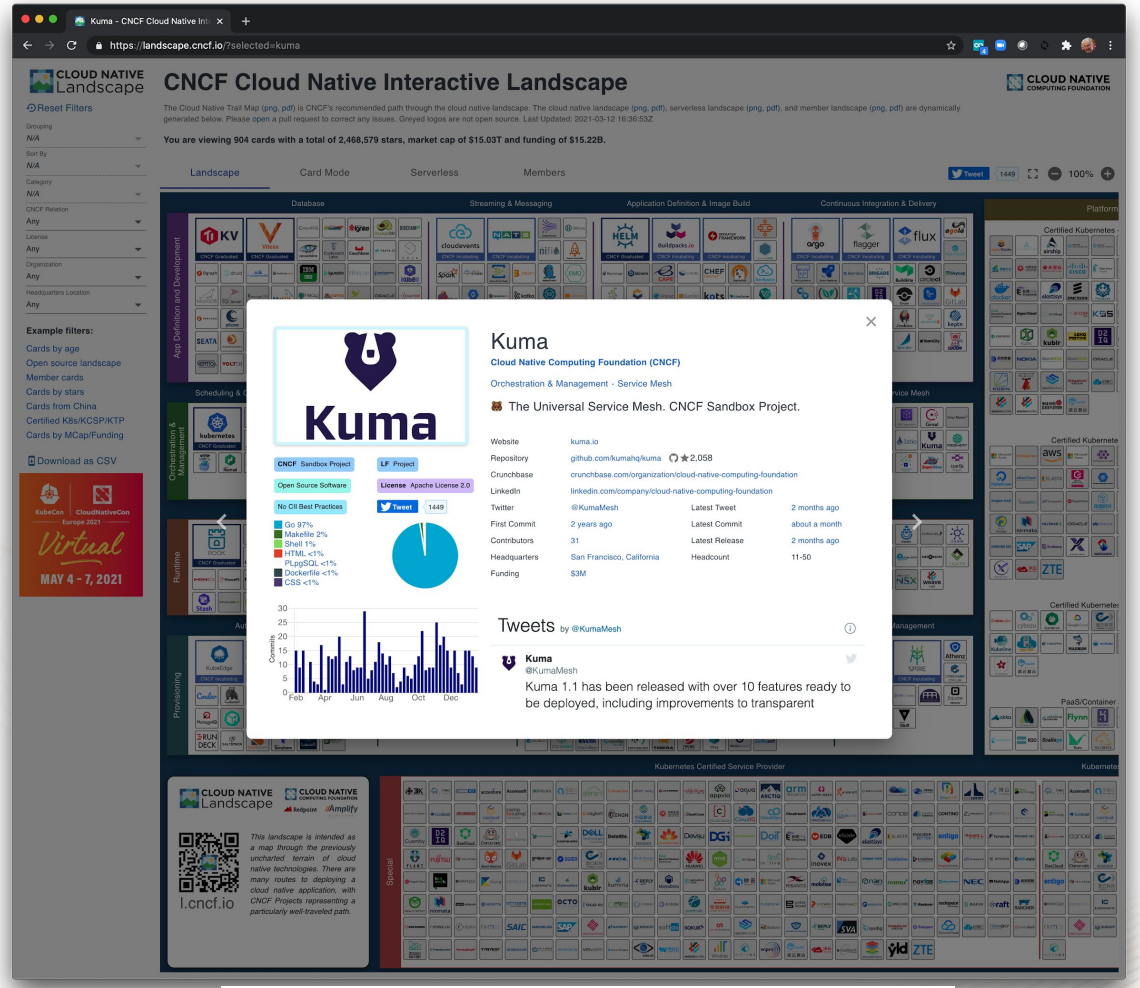
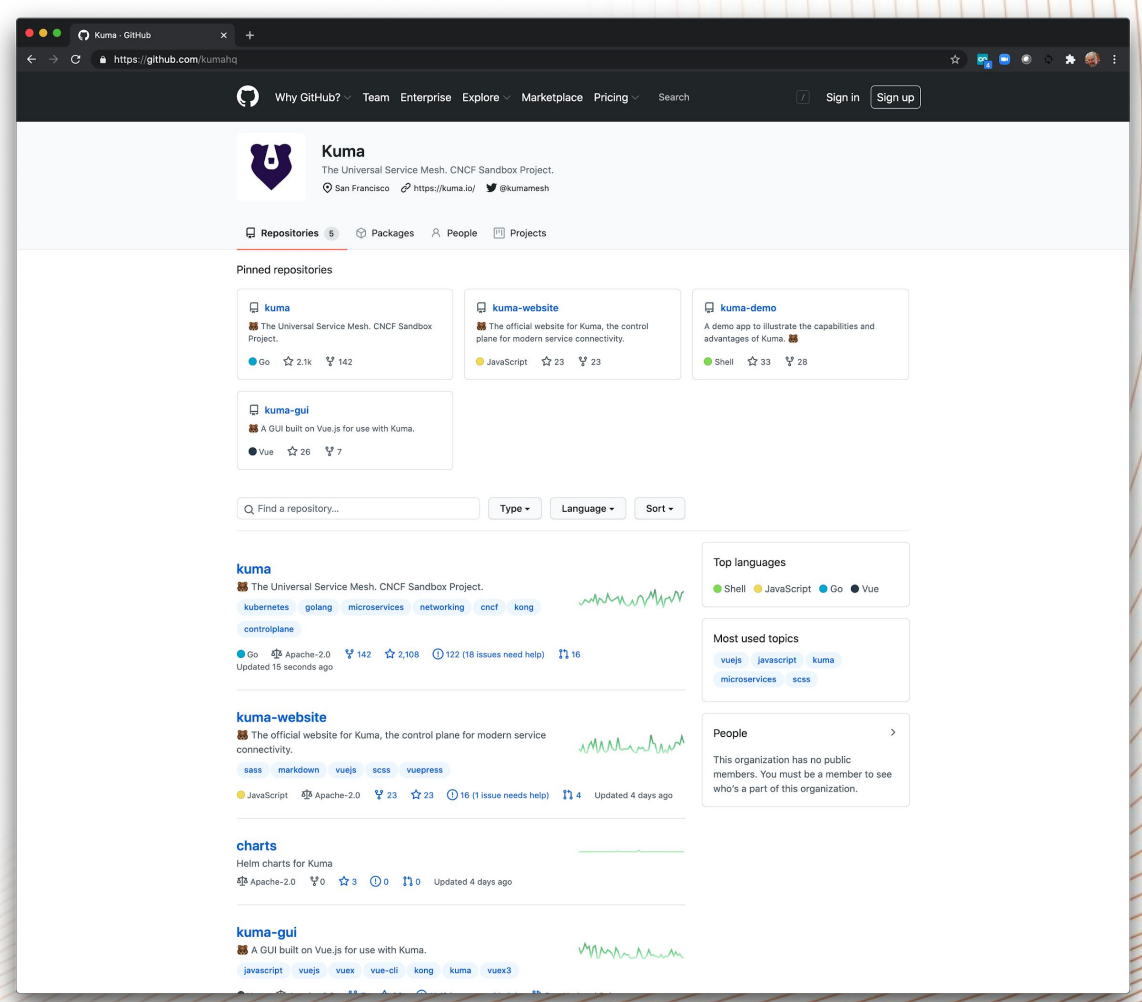
Kuma & CNCF (Cloud Native Computing Foundation)

Open source Service Mesh Project started by Kong in September 2019 and donated to CNCF



https://landscape.cncf.io/?selected=kuma



https://github.com/kumahq

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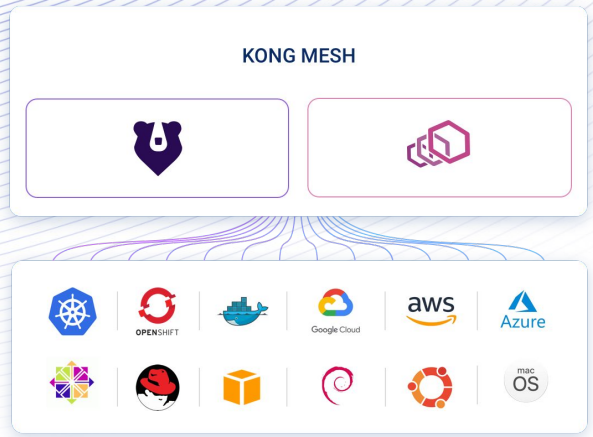
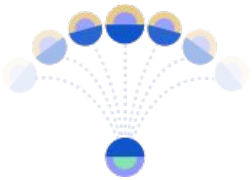
Kong Mesh Overview

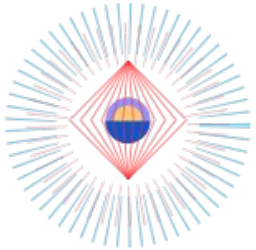
Why do you need a Service Mesh?





Ensure service connectivity, discovery and traffic reliability

Intelligently route traffic across any platform and any cloud to meet expectations and SLAs



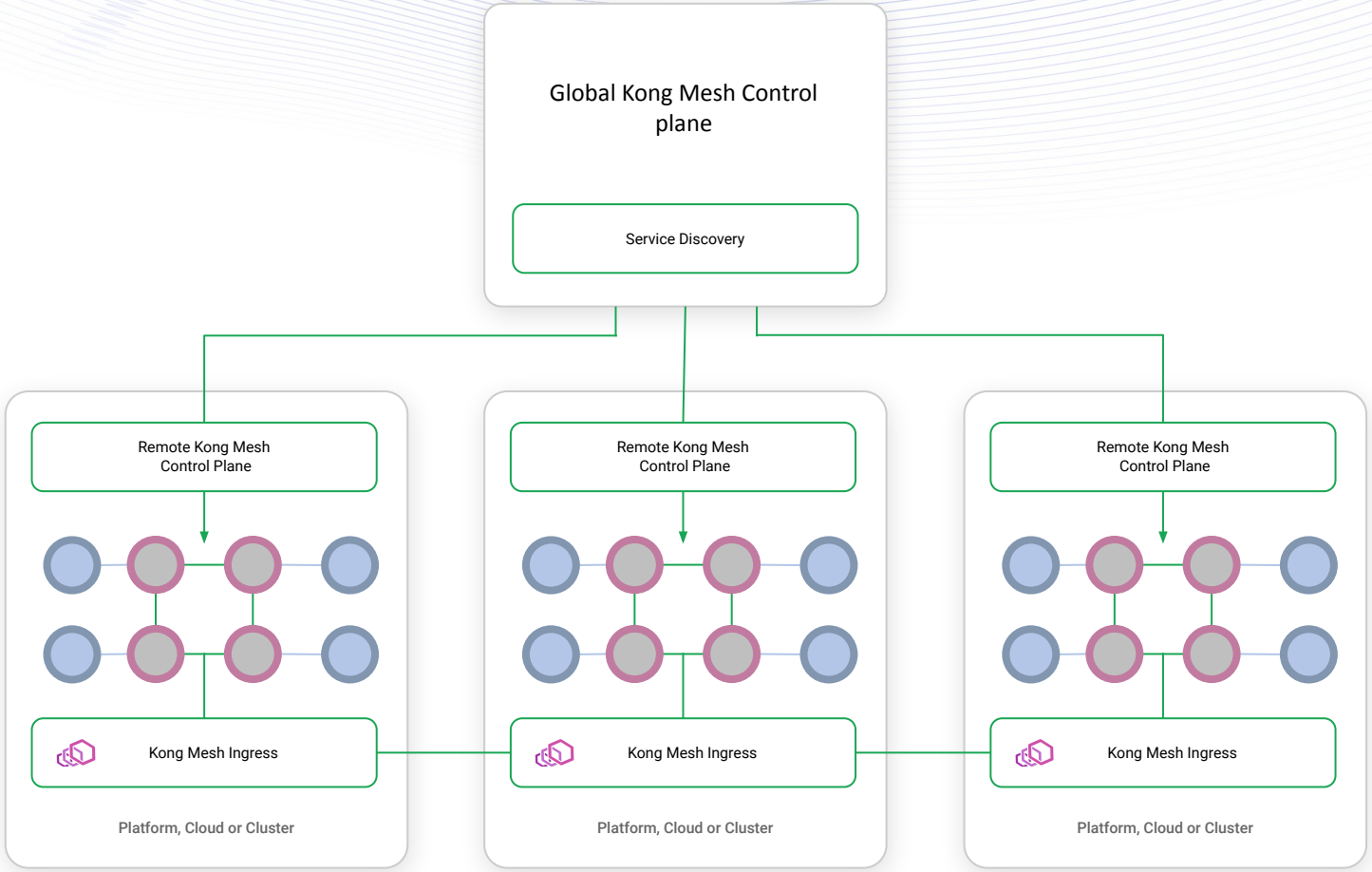
Achieve Zero-Trust Security

Restrict access and encrypt all traffic by default to only complete transactions when identity is verified

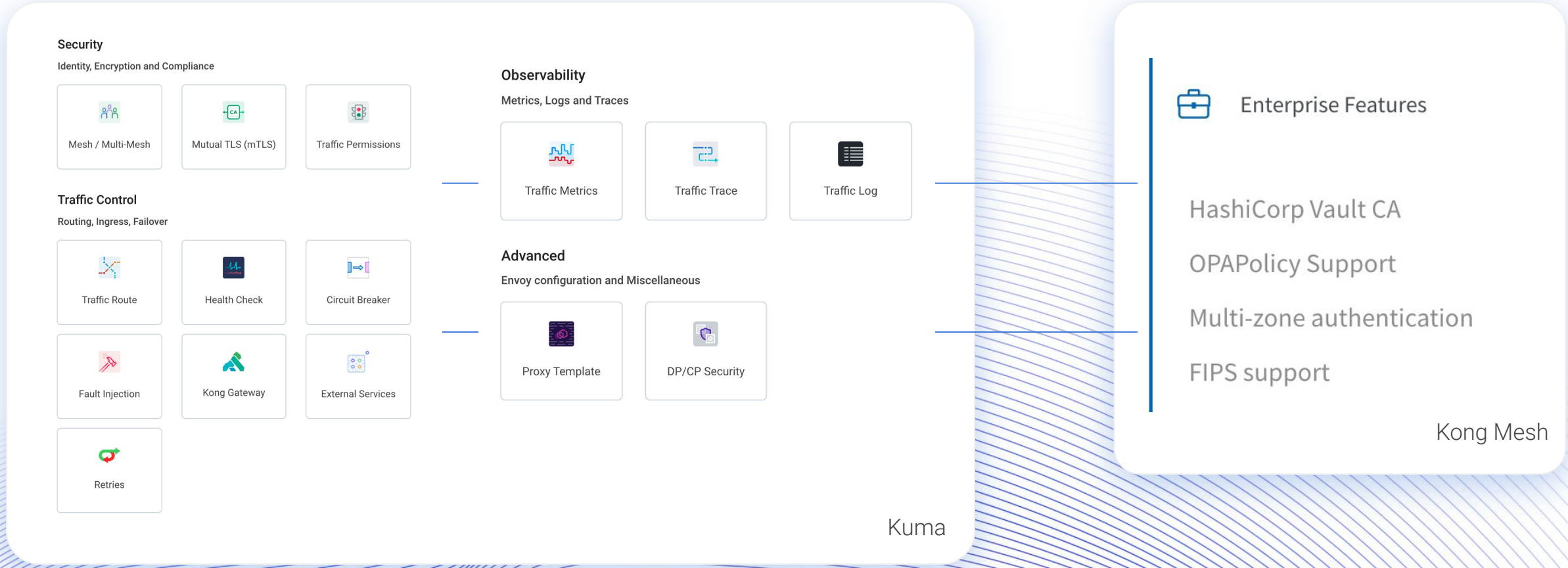
Gain Global Traffic Observability

Gain a detailed understanding of service behavior to increase application reliability and the efficiency of teams

Multi-Zone deployment



Service Mesh Policies



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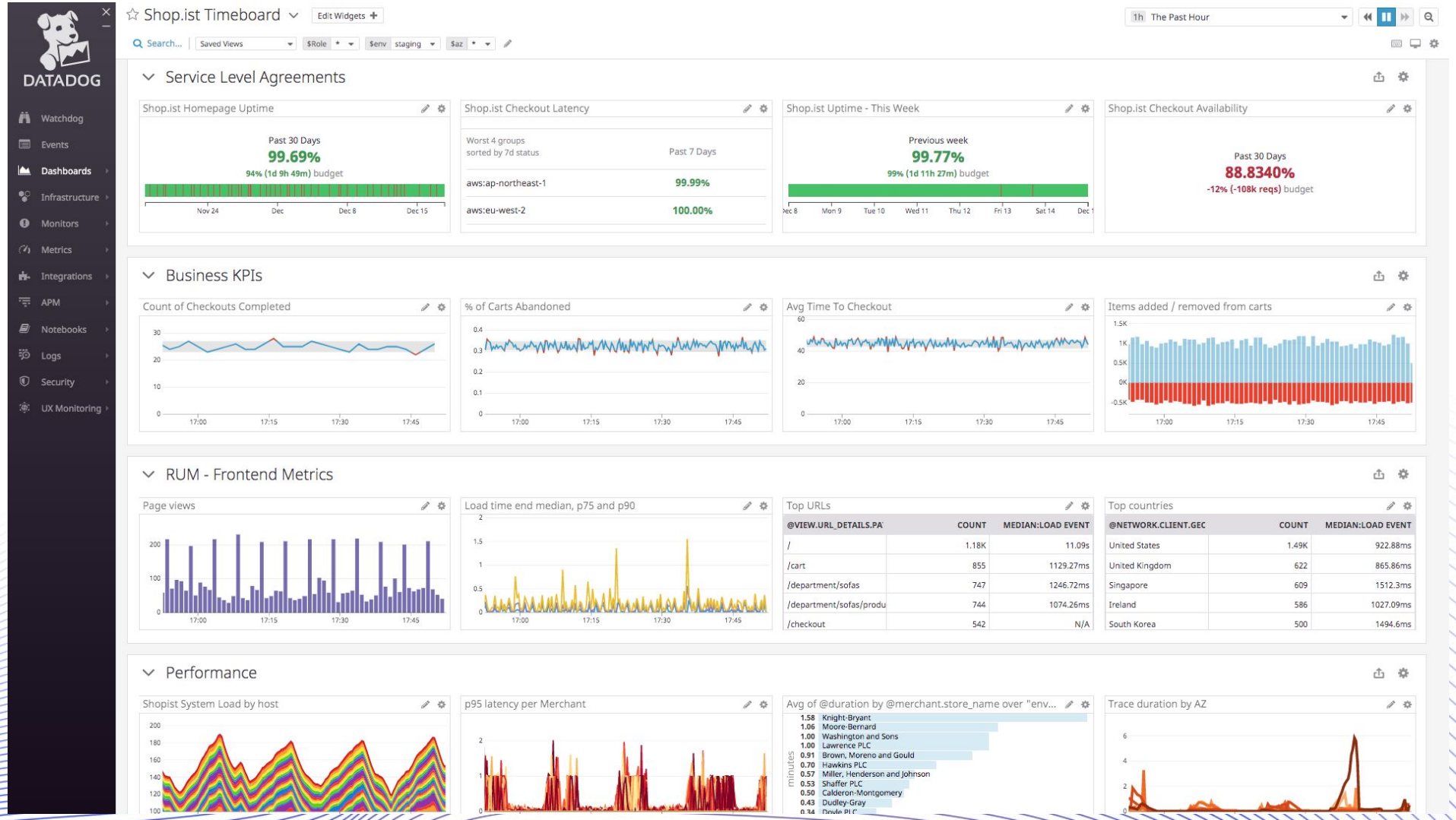

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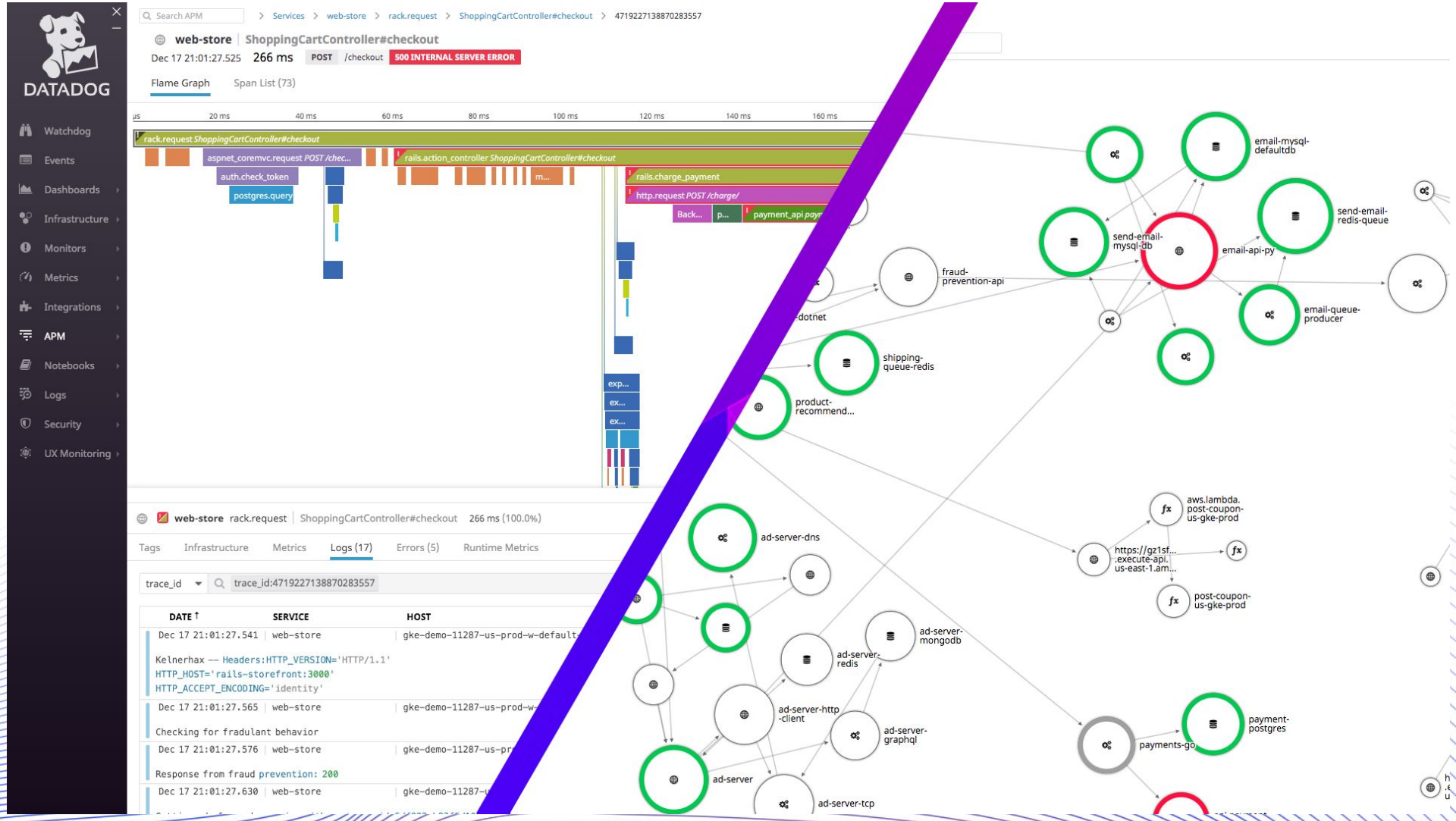
Datadog


DATADOG
Watchdog
Events
Dashboards
Infrastructure
Monitors
Metrics
Integrations
APM
Notebooks
Logs
Security
UX Monitoring
Search APM
Services > web-store > rack.request > ShoppingCartController#checkout > 4719227138870283557
web-store | ShoppingCartController#checkout
Dec 17 21:01:27.525 266 ms POST /checkout 500 INTERNAL SERVER ERROR
Flame Graph
Span List (73)
rack.request ShoppingCartController#checkout
aspnet_coremvc.request POST /chec...
rails.action_controller ShoppingCartController#checkout
auth.check_token
postgres.query
rails.charge_payment
http.request POST /charge/
web-store rack.request | ShoppingCartController#checkout 266 ms (100.0%)
Tags
Infrastructure
Metrics
Logs (17)
Errors (5)
Runtime Metrics
trace_id
trace_id:4719227138870283557
DATE
SERVICE
HOST
Dec 17 21:01:27.541 | web-store | gke-demo-11287-us-prod-w-default
Kelnerhax — Headers:HTTP_VERSION='HTTP/1.1'
HTTP_HOST='rails-storefront:3000'
HTTP_ACCEPT_ENCODING='identity'
Dec 17 21:01:27.565 | web-store
Checking for fradulant behavior
Dec 17 21:01:27.576 | web-store
Response from fraud prevention: 200
Dec 17 21:01:27.630 | web-store
email-mysql-defaultdb
send-email-mysql-db
email-api-py
send-email-redis-queue
email-queue-producer
fraud-prevention-api
shipping-queue-redis
product-recommend...
ad-server-dns
ad-server-mongodb
ad-server-redis
ad-server-http-client
ad-server-graphql
ad-server
ad-server-tcp
aws.lambda.post-coupon-us-gke-prod
post-coupon-us-gke-prod
payments-go
payment-postgres

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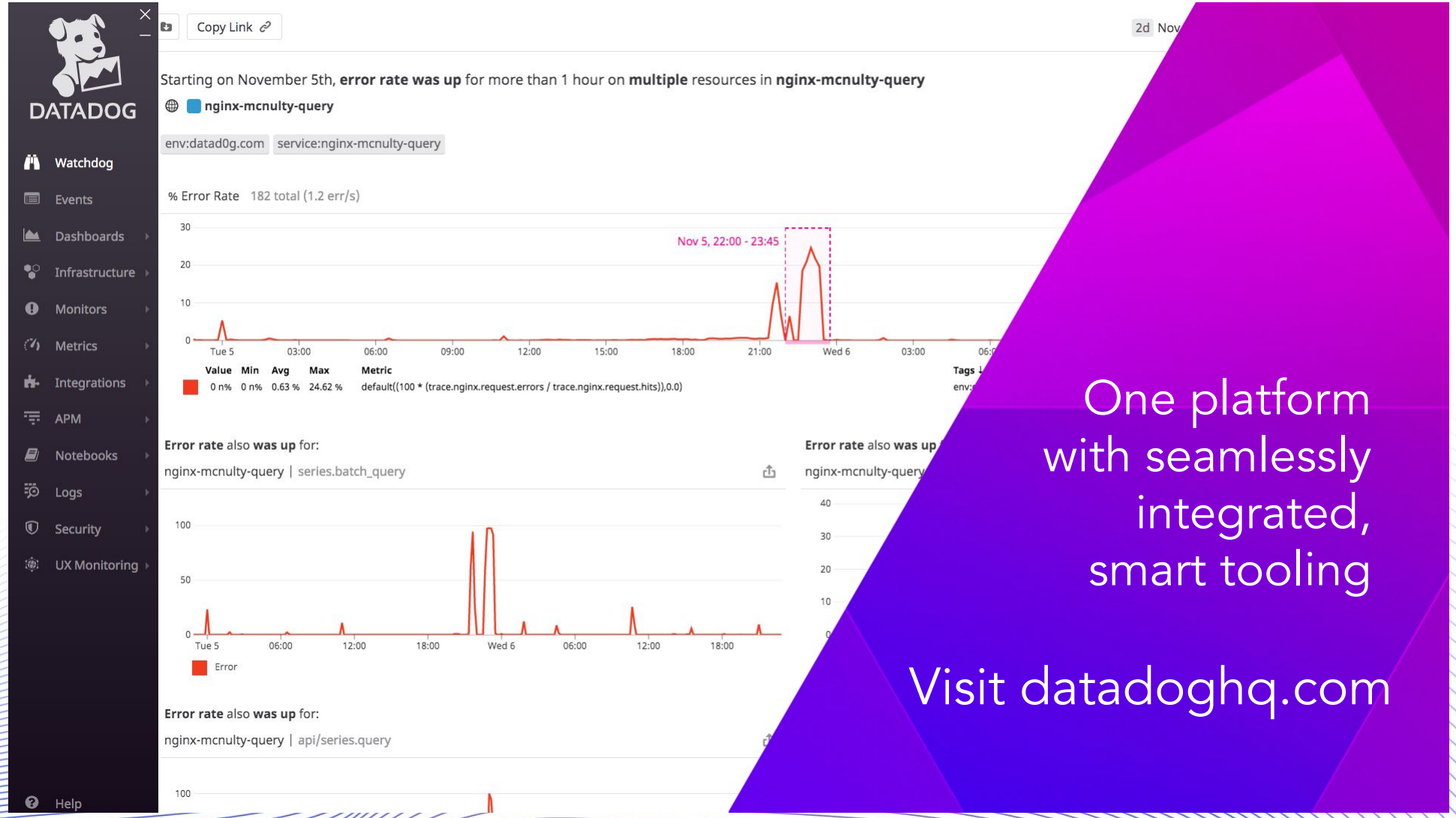

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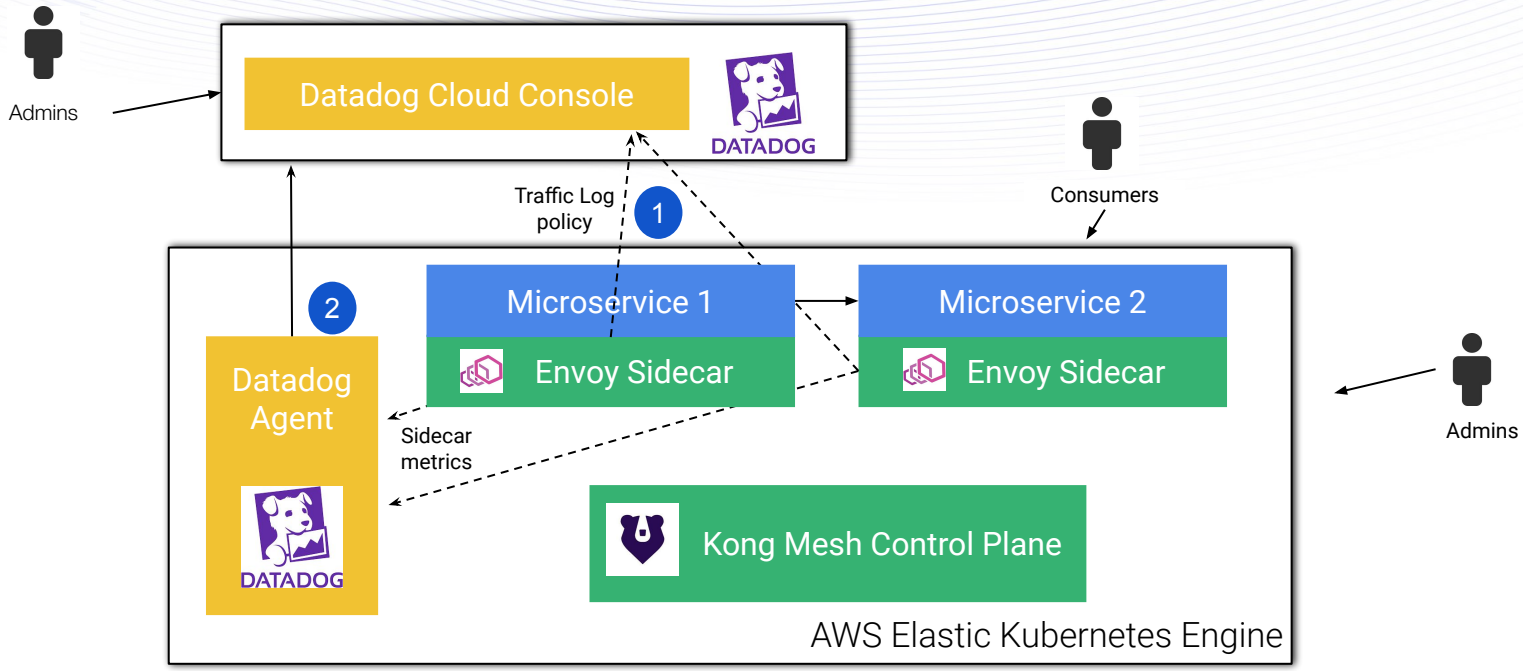
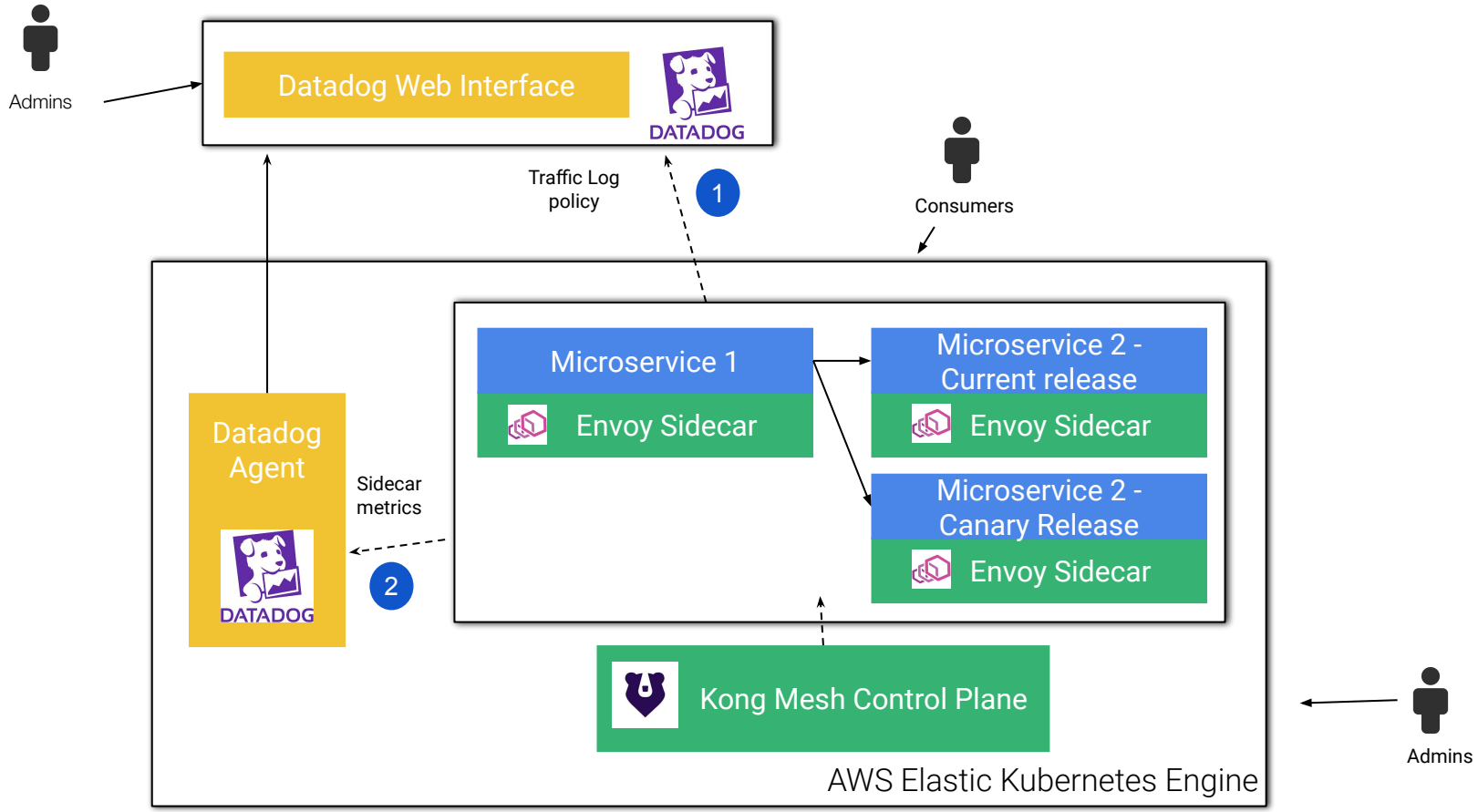
Kong Mesh & Datadog



1. Kong Mesh Traffic Log policy
2. Datadog Agent

Kong Mesh & Datadog



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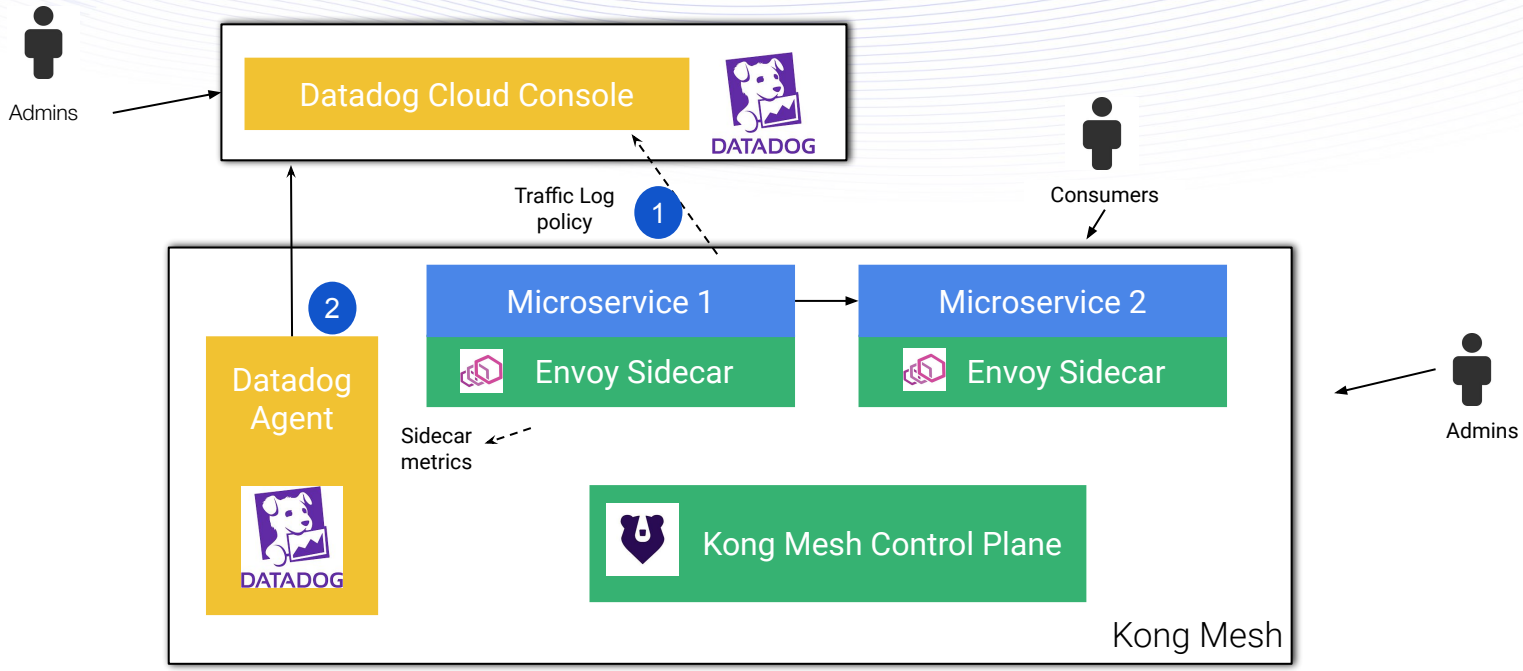
Kong Mesh & Datadog



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