Case Management Infrastructure Report

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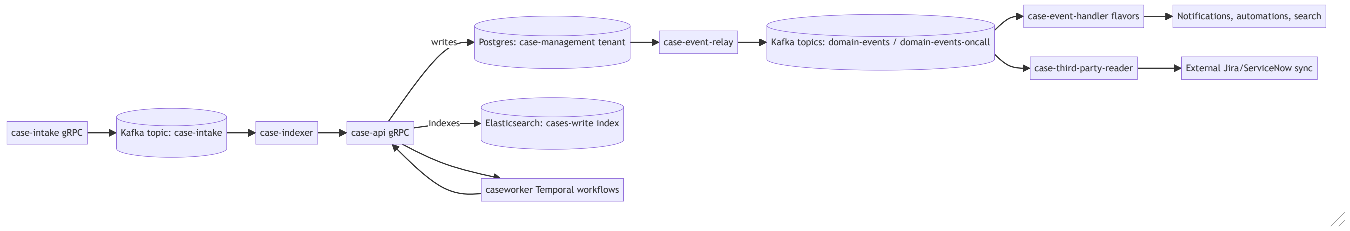
Architecture Overview

The Case Management domain stitches together gRPC services, Kafka pipelines, Temporal workers, and multi-tenant datastores to collect, enrich, and disseminate case data. Requests land on regional gRPC frontends, are persisted in Postgres, indexed in Elasticsearch, and fanned out through Kafka so domain-specific handlers can execute automation and third-party synchronization.

Network Data Flow


case-intake gRPC
Kafka topic: case-intake
case-indexer
case-api gRPC
writes
Postgres: case-management tenant
case-event-relay
Kafka topics: domain-events / domain-events-oncall
case-event-handler flavors
Notifications, automations, search
case-third-party-reader
External Jira/ServiceNow sync
indexes
Elasticsearch: cases-write index
caseworker Temporal workflows

Messaging Footprint

The domain currently relies on the following Kafka topics. Consumer counts include dedicated consumer groups for each case-event-handler flavor and third-party reader variant.

Topic	Producers	Consumers	Notes
case-intake	case-intake	case-indexer	Primary ingress topic for case creation events
collaboration_integrations_jira	-	case-third-party-reader (jira) consumer-group:case-management	Processed by case-third-party-reader flavor 'jira'
collaboration_integrations_servicenow	-	case-third-party-reader (servicenow) consumer-group:case-management	Processed by case-third-party-reader flavor 'servicenow'
domain-events	case-event-relay (case-management)	case-event-handler (case-management)	Domain event fan-out topics used by downstream handlers (handled by 17 case-event-handler flavors)
domain-events-oncall	case-event-relay (on-call)	case-event-handler (on-call)	Domain event fan-out topics used by downstream handlers (handled by 17 case-event-handler flavors)

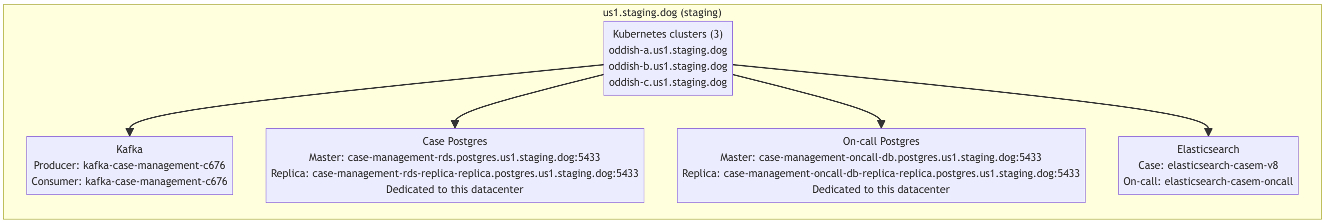
Datacenter Footprint Summary

Each datacenter runs identical Helm charts but differs in Kafka broker IDs, database endpoints, and whether on-call tenant workloads are colocated.

Datacenter	Environment	Kubernetes clusters	Kafka clusters	Case Postgres	On-call Postgres	Elasticsearch
us1.staging.dog	staging	3 clusters oddish-a.us1.staging.dog oddish-b.us1.staging.dog oddish-c.us1.staging.dog	producer: kafka-case-management-c676	master: case-management-rds.postgres.us1.staging.dog:5433 replica: case-management-rds-replica-replica.postgres.us1.staging.dog:5433 Dedicated to this datacenter	master: case-management-oncall-db.postgres.us1.staging.dog:5433 replica: case-management-oncall-db-replica-replica.postgres.us1.staging.dog:5433 Dedicated to this datacenter	case: elasticsearch-casem-v8 on-call: elasticsearch-casem-oncall
us1.prod.dog	prod	3 clusters rellor-a.us1.prod.dog rellor-b.us1.prod.dog rellor-e.us1.prod.dog	producer: kafka-case-management-56de	master: case-management-rds.postgres.us1.prod.dog:5433 replica: case-management-rds-replica-replica.postgres.us1.prod.dog:5433 Dedicated to this datacenter	master: case-management-oncall-db.postgres.us1.prod.dog:5433 replica: case-management-oncall-db-replica-general.postgres.us1.prod.dog:5433 Dedicated to this datacenter	case: elasticsearch-casem-v8 on-call: elasticsearch-casem-oncall
us3.prod.dog	prod	3 clusters trotro-1.us3.prod.dog trotro-2.us3.prod.dog trotro-3.us3.prod.dog	producer: kafka-case-management-61d9	master: proxy-case-management-db.postgres-case-management.all-clusters.local-dc.fabric.dog:5432 replica: proxy-case-management-db-replica-active.postgres-case-management.all-clusters.local-dc.fabric.dog:5432 Fabric proxy shared across clusters	master: proxy-case-management-oncall-db.postgres-case-management.all-clusters.local-dc.fabric.dog:5432 replica: proxy-case-management-oncall-db-replica-active.postgres-case-management.all-clusters.local-dc.fabric.dog:5432 Fabric proxy shared across clusters	case: elasticsearch-casem-v8 on-call: elasticsearch-casem-oncall
us5.prod.dog	prod	3 clusters zorua-a.us5.prod.dog zorua-c.us5.prod.dog zorua-f.us5.prod.dog	producer: kafka-case-management-0e5e	master: case-management-db.postgres.us5.prod.dog:5432 replica: case-management-db-replica-replica.postgres.us5.prod.dog:5432 Dedicated to this datacenter	master: proxy-case-management-oncall-db.postgres-case-management.all-clusters.local-dc.fabric.dog:5432 replica: proxy-case-management-oncall-db-replica-active.postgres-case-management.all-clusters.local-dc.fabric.dog:5432 Fabric proxy shared across clusters	case: elasticsearch-casem-v8 on-call: elasticsearch-casem-oncall
eu1.prod.dog	prod	3 clusters staryu-a.eu1.prod.dog staryu-b.eu1.prod.dog staryu-c.eu1.prod.dog	producer: kafka-case-management-ad55	master: case-management-db.postgres.eu1.prod.dog:5432 replica: case-management-db-replica-replica.postgres.eu1.prod.dog:5432 Dedicated to this datacenter	master: proxy-case-management-oncall-db.postgres-case-management.all-clusters.local-dc.fabric.dog:5432 replica: proxy-case-management-oncall-db-replica-active.postgres-case-management.all-clusters.local-dc.fabric.dog:5432 Fabric proxy shared across clusters	case: elasticsearch-casem-v8 on-call: elasticsearch-casem-oncall
ap1.prod.dog	prod	3 clusters brionne-a.ap1.prod.dog brionne-c.ap1.prod.dog brionne-d.ap1.prod.dog	producer: kafka-case-management-6609	master: proxy-case-management-db.postgres-case-management.all-clusters.local-dc.fabric.dog:5432 replica: proxy-case-management-db-replica-active.postgres-case-management.all-clusters.local-dc.fabric.dog:5432 Fabric proxy shared across clusters	master: proxy-case-management-oncall-db.postgres-case-management.all-clusters.local-dc.fabric.dog:5432 replica: proxy-case-management-oncall-db-replica-active.postgres-case-management.all-clusters.local-dc.fabric.dog:5432 Fabric proxy shared across clusters	case: elasticsearch-casem-v8 on-call: elasticsearch-casem-oncall
ap2.prod.dog	prod	3 clusters emolga-a.ap2.prod.dog emolga-b.ap2.prod.dog emolga-c.ap2.prod.dog	producer: kafka-case-management-ca9c url: kafka-case-management-ca9c.kafka-case-management.ap2.prod.dog:9092	master: proxy-case-management-db.postgres-case-management.all-clusters.local-dc.fabric.dog:5432 replica: proxy-case-management-db-replica-active.postgres-case-management.all-clusters.local-dc.fabric.dog:5432 Fabric proxy shared across clusters	master: proxy-case-management-oncall-db.postgres-case-management.all-clusters.local-dc.fabric.dog:5432 replica: proxy-case-management-oncall-db-replica-active.postgres-case-management.all-clusters.local-dc.fabric.dog:5432 Fabric proxy shared across clusters	case: elasticsearch-casem-v8 on-call: elasticsearch-casem-oncall
us1.fed.dog	gov	3 clusters snorlax-a.us1.fed.dog snorlax-b.us1.fed.dog snorlax-c.us1.fed.dog	producer: kafka-case-management-c096	master: proxy-case-management-db.postgres-case-management.all-clusters.local-dc.fabric.dog:5432 replica: proxy-case-management-db-replica-active.postgres-case-management.all-clusters.local-dc.fabric.dog:5432 Fabric proxy shared across clusters	Not deployed	case: elasticsearch-casem-v8 on-call: not deployed

Datacenter Topology Diagrams

us1.staging.dog (staging)



us1.staging.dog (staging)

Kubernetes clusters (3)
oddish-a.us1.staging.dog
oddish-b.us1.staging.dog
oddish-c.us1.staging.dog

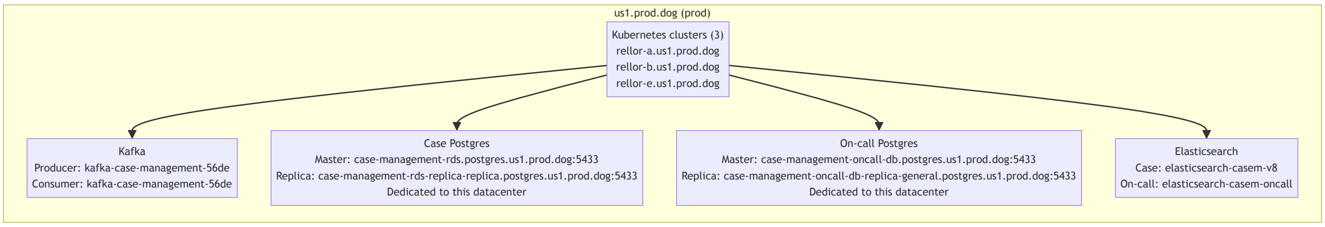
Kafka
Producer: kafka-case-management-c676
Consumer: kafka-case-management-c676

Case Postgres
Master: case-management-rds.postgres.us1.staging.dog:5433
Replica: case-management-rds-replica-replica.postgres.us1.staging.dog:5433
Dedicated to this datacenter

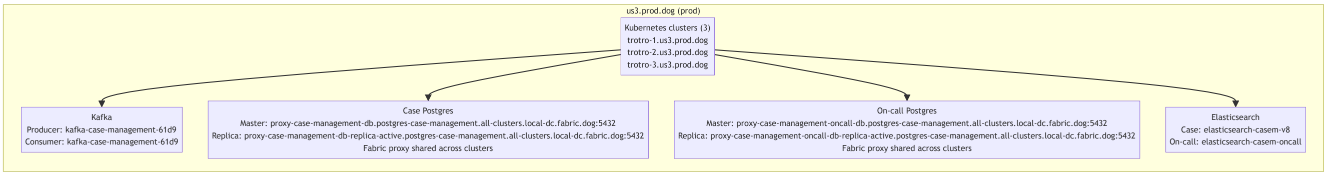
On-call Postgres
Master: case-management-oncall-db.postgres.us1.staging.dog:5433
Replica: case-management-oncall-db-replica-replica.postgres.us1.staging.dog:5433
Dedicated to this datacenter

Elasticsearch
Case: elasticsearch-casem-v8
On-call: elasticsearch-casem-oncall

us1.prod.dog (prod)


us1.prod.dog (prod)
Kubernetes clusters (3)
rellor-a.us1.prod.dog
rellor-b.us1.prod.dog
rellor-e.us1.prod.dog
Kafka
Producer: kafka-case-management-56de
Consumer: kafka-case-management-56de
Case Postgres
Master: case-management-rds.postgres.us1.prod.dog:5433
Replica: case-management-rds-replica-replica.postgres.us1.prod.dog:5433
Dedicated to this datacenter
On-call Postgres
Master: case-management-oncall-db.postgres.us1.prod.dog:5433
Replica: case-management-oncall-db-replica-general.postgres.us1.prod.dog:5433
Dedicated to this datacenter
Elasticsearch
Case: elasticsearch-casem-v8
On-call: elasticsearch-casem-oncall

us3.prod.dog (prod)


us3.prod.dog (prod)
Kubernetes clusters (3)
trotro-1.us3.prod.dog
trotro-2.us3.prod.dog
trotro-3.us3.prod.dog
Kafka
Producer: kafka-case-management-61d9
Consumer: kafka-case-management-61d9
Case Postgres
Master: proxy-case-management-db.postgres-case-management.all-clusters.local-dc.fabric.dog:5432
Replica: proxy-case-management-db-replica-active.postgres-case-management.all-clusters.local-dc.fabric.dog:5432
Fabric proxy shared across clusters
On-call Postgres
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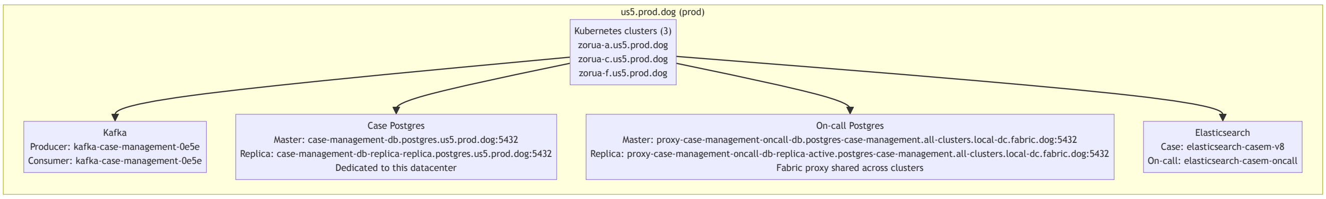
us5.prod.dog (prod)


us5.prod.dog (prod)
Kubernetes clusters (3)
zorua-a.us5.prod.dog
zorua-c.us5.prod.dog
zorua-f.us5.prod.dog
Kafka
Producer: kafka-case-management-0e5e
Consumer: kafka-case-management-0e5e
Case Postgres
Master: case-management-db.postgres.us5.prod.dog:5432
Replica: case-management-db-replica-replica.postgres.us5.prod.dog:5432
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On-call Postgres
Master: proxy-case-management-oncall-db.postgres-case-management.all-clusters.local-dc.fabric.dog:5432
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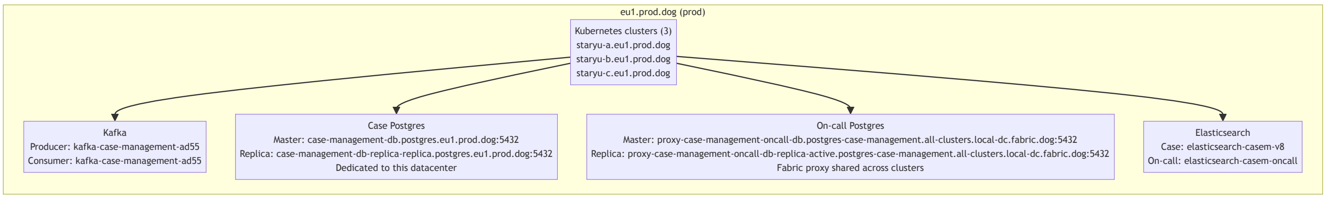
eu1.prod.dog (prod)


eu1.prod.dog (prod)
Kubernetes clusters (3)
staryu-a.eu1.prod.dog
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staryu-c.eu1.prod.dog
Kafka
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Case Postgres
Master: case-management-db.postgres.eu1.prod.dog:5432
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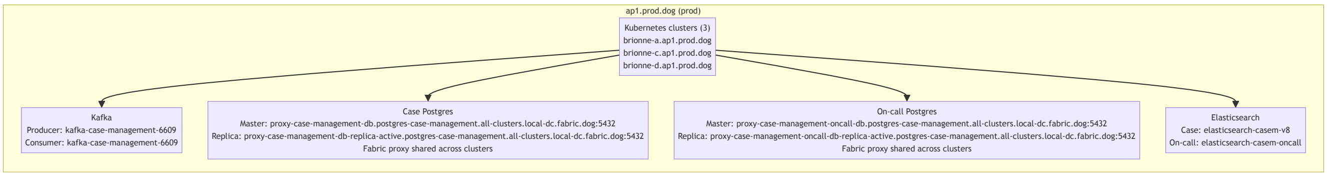
ap1.prod.dog (prod)


ap1.prod.dog (prod)
Kubernetes clusters (3)
brionne-a.ap1.prod.dog
brionne-c.ap1.prod.dog
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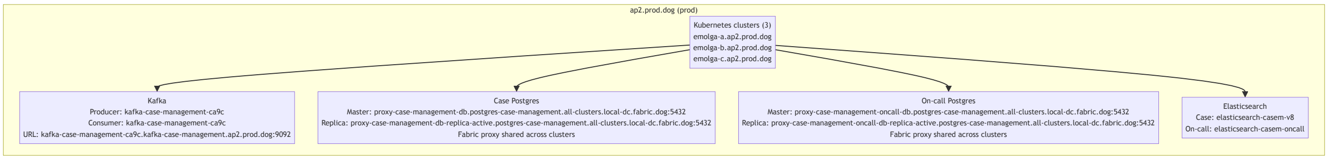
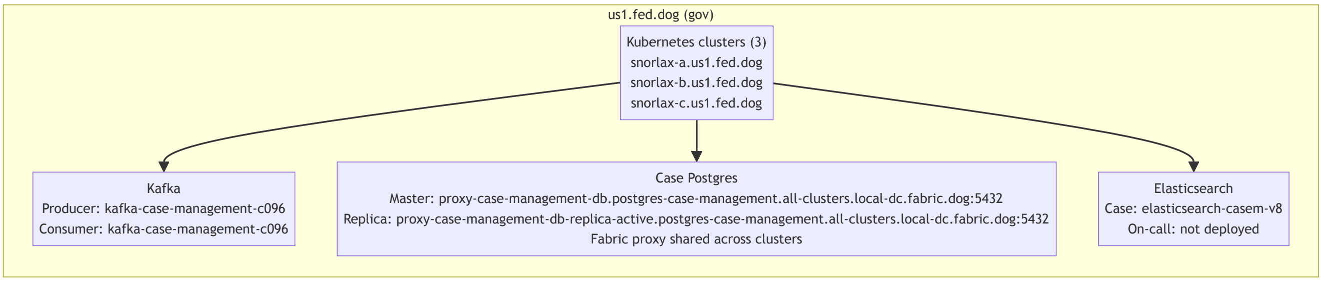
Replica: proxy-case-management-oncall-db-replica-active.postgres-case-management.all-clusters.local-dc.fabric.dog:5432
Fabric proxy shared across clusters
Elasticsearch
Case: elasticsearch-casem-v8
On-call: elasticsearch-casem-oncall

ap2.prod.dog (prod)


ap2.prod.dog (prod)
Kubernetes clusters (3)
emolga-a.ap2.prod.dog
emolga-b.ap2.prod.dog
emolga-c.ap2.prod.dog
Kafka
Producer: kafka-case-management-ca9c
Consumer: kafka-case-management-ca9c
URL: kafka-case-management-ca9c.kafka-case-management.ap2.prod.dog:9092
Case Postgres
Master: proxy-case-management-db.postgres-case-management.all-clusters.local-dc.fabric.dog:5432
Replica: proxy-case-management-db-replica-active.postgres-case-management.all-clusters.local-dc.fabric.dog:5432
Fabric proxy shared across clusters
On-call Postgres
Master: proxy-case-management-oncall-db.postgres-case-management.all-clusters.local-dc.fabric.dog:5432
Replica: proxy-case-management-oncall-db-replica-active.postgres-case-management.all-clusters.local-dc.fabric.dog:5432
Fabric proxy shared across clusters
Elasticsearch
Case: elasticsearch-casem-v8
On-call: elasticsearch-casem-oncall

us1.fed.dog (gov)


us1.fed.dog (gov)
Kubernetes clusters (3)
snorlax-a.us1.fed.dog
snorlax-b.us1.fed.dog
snorlax-c.us1.fed.dog
Kafka
Producer: kafka-case-management-c096
Consumer: kafka-case-management-c096
Case Postgres
Master: proxy-case-management-db.postgres-case-management.all-clusters.local-dc.fabric.dog:5432
Replica: proxy-case-management-db-replica-active.postgres-case-management.all-clusters.local-dc.fabric.dog:5432
Fabric proxy shared across clusters
Elasticsearch
Case: elasticsearch-casem-v8
On-call: not deployed

Per-datacenter Deployment Notes

us1.staging.dog

Environment: staging

- Kubernetes clusters: oddish-a.us1.staging.dog, oddish-b.us1.staging.dog, oddish-c.us1.staging.dog
- Kafka: producer cluster `kafka-case-management-c676` , consumer cluster `kafka-case-management-c676`
- Case Postgres: master `case-management-rds.postgres.us1.staging.dog:5433` , replica `case-management-rds-replica-replica.postgres.us1.staging.dog:5433` , Dedicated to this datacenter
- On-call Postgres: master `case-management-oncall-db.postgres.us1.staging.dog:5433` , replica `case-management-oncall-db-replica-replica.postgres.us1.staging.dog:5433` , Dedicated to this datacenter
- Features: DD dynamic instrumentation enabled

us1.prod.dog

Environment: prod

- Kubernetes clusters: rellor-a.us1.prod.dog, rellor-b.us1.prod.dog, rellor-e.us1.prod.dog
- Kafka: producer cluster `kafka-case-management-56de` , consumer cluster `kafka-case-management-56de`
- Case Postgres: master `case-management-rds.postgres.us1.prod.dog:5433` , replica `case-management-rds-replica-replica.postgres.us1.prod.dog:5433` , Dedicated to this datacenter
- On-call Postgres: master `case-management-oncall-db.postgres.us1.prod.dog:5433` , replica `case-management-oncall-db-replica-general.postgres.us1.prod.dog:5433` , Dedicated to this datacenter

us3.prod.dog

Environment: prod

- Kubernetes clusters: trotro-1.us3.prod.dog, trotro-2.us3.prod.dog, trotro-3.us3.prod.dog
- Kafka: producer cluster `kafka-case-management-61d9` , consumer cluster `kafka-case-management-61d9`
- Case Postgres: master `proxy-case-management-db.postgres-case-management.all-clusters.local-dc.fabric.dog:5432` , replica `proxy-case-management-db-replica-active.postgres-case-management.all-clusters.local-dc.fabric.dog:5432` , Fabric proxy shared across clusters
- On-call Postgres: master `proxy-case-management-oncall-db.postgres-case-management.all-clusters.local-dc.fabric.dog:5432` , replica `proxy-case-management-oncall-db-replica-active.postgres-case-management.all-clusters.local-dc.fabric.dog:5432` , Fabric proxy shared across clusters

us5.prod.dog

Environment: prod

- Kubernetes clusters: zorua-a.us5.prod.dog, zorua-c.us5.prod.dog, zorua-f.us5.prod.dog

- Kafka: producer cluster `kafka-case-management-0e5e` , consumer cluster `kafka-case-management-0e5e`
- Case Postgres: master `case-management-db.postgres.us5.prod.dog:5432` , replica `case-management-db-replica-replica.postgres.us5.prod.dog:5432` , Dedicated to this datacenter
- On-call Postgres: master `proxy-case-management-oncall-db.postgres-case-management.all-clusters.local-dc.fabric.dog:5432` , replica `proxy-case-management-oncall-db-replica-active.postgres-case-management.all-clusters.local-dc.fabric.dog:5432` , Fabric proxy shared across clusters

eu1.prod.dog

Environment: prod

- Kubernetes clusters: staryu-a.eu1.prod.dog, staryu-b.eu1.prod.dog, staryu-c.eu1.prod.dog
- Kafka: producer cluster `kafka-case-management-ad55` , consumer cluster `kafka-case-management-ad55`
- Case Postgres: master `case-management-db.postgres.eu1.prod.dog:5432` , replica `case-management-db-replica-replica.postgres.eu1.prod.dog:5432` , Dedicated to this datacenter
- On-call Postgres: master `proxy-case-management-oncall-db.postgres-case-management.all-clusters.local-dc.fabric.dog:5432` , replica `proxy-case-management-oncall-db-replica-active.postgres-case-management.all-clusters.local-dc.fabric.dog:5432` , Fabric proxy shared across clusters

ap1.prod.dog

Environment: prod

- Kubernetes clusters: brionne-a.ap1.prod.dog, brionne-c.ap1.prod.dog, brionne-d.ap1.prod.dog
- Kafka: producer cluster `kafka-case-management-6609` , consumer cluster `kafka-case-management-6609`
- Case Postgres: master `proxy-case-management-db.postgres-case-management.all-clusters.local-dc.fabric.dog:5432` , replica `proxy-case-management-db-replica-active.postgres-case-management.all-clusters.local-dc.fabric.dog:5432` , Fabric proxy shared across clusters
- On-call Postgres: master `proxy-case-management-oncall-db.postgres-case-management.all-clusters.local-dc.fabric.dog:5432` , replica `proxy-case-management-oncall-db-replica-active.postgres-case-management.all-clusters.local-dc.fabric.dog:5432` , Fabric proxy shared across clusters

ap2.prod.dog

Environment: prod

- Kubernetes clusters: emolga-a.ap2.prod.dog, emolga-b.ap2.prod.dog, emolga-c.ap2.prod.dog
- Kafka: producer cluster `kafka-case-management-ca9c` , consumer cluster `kafka-case-management-ca9c` , brokers reachable at `kafka-case-management-ca9c.kafka-case-management.ap2.prod.dog:9092`
- Case Postgres: master `proxy-case-management-db.postgres-case-management.all-clusters.local-dc.fabric.dog:5432` , replica `proxy-case-management-db-replica-active.postgres-case-management.all-clusters.local-dc.fabric.dog:5432` , Fabric proxy shared across clusters
- On-call Postgres: master `proxy-case-management-oncall-db.postgres-case-management.all-clusters.local-dc.fabric.dog:5432` , replica `proxy-case-management-oncall-db-replica-active.postgres-case-management.all-clusters.local-dc.fabric.dog:5432` , Fabric proxy shared across clusters

us1.fed.dog

Environment: gov

- Kubernetes clusters: snorlax-a.us1.fed.dog, snorlax-b.us1.fed.dog, snorlax-c.us1.fed.dog
- Kafka: producer cluster `kafka-case-management-c096` , consumer cluster `kafka-case-management-c096`
- Case Postgres: master `proxy-case-management-db.postgres-case-management.all-clusters.local-dc.fabric.dog:5432` , replica `proxy-case-management-db-replica-active.postgres-case-management.all-clusters.local-dc.fabric.dog:5432` , Fabric proxy shared across clusters
- On-call Postgres: tenant not deployed in this datacenter

Service Responsibilities

case-intake

Type: gRPC ingress + Kafka producer
Accepts authenticated intake requests, performs validation, and publishes canonical case payloads to the `case-intake` topic for asynchronous processing.

case-indexer

Type: Kafka consumer + search index writer
Consumes from `case-intake` , enriches payloads by calling `case-api` , and ensures Elasticsearch indexes stay in sync so new cases are searchable immediately.

case-api

Type: Multi-tenant gRPC API
Coordinates Postgres transactions, search index updates, notification rule evaluation, and outbound integration hooks for the domain.

case-event-relay

Type: Postgres change poller + Kafka producer
Polls the `domain_events` tables, batches new records, and publishes them to tenant-specific Kafka topics to decouple persistence from automation workloads.

case-event-handler

Type: Kafka consumer with 17 flavors
Each flavor has an isolated consumer group that processes a subset of domain events (analytics, search indexing, notifications, rule evaluation, paging) while sharing the same topic stream.

case-third-party-reader

Type: Kafka consumer
Consumes Jira and ServiceNow connector feeds so that external ticket updates can be reflected in Case Management timelines.

caseworker

Type: Temporal worker
Executes long-running workflows (case cleanup, merge automation, file lifecycle tasks) and interacts with `case-api` and storage backends.

case-chat-interactions

Type: gRPC service
Bridges chat integrations via Hermes to append conversation excerpts into case timelines and trigger follow-up automation.