LOGZILLA DOCUMENTATION

Kubernetes Deployment Overview

LogZilla Kubernetes reference architecture for Postgres, Redis, InfluxDB, Storage, Query, API, Ingest, and Front modules with ingress exposure guidance

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When to use Kubernetes

- Kubernetes is recommended for sustained ingest above 10B events per day (EPD).
- Kubernetes is required for deployments exceeding 20B EPD.

Supported platforms

- Any conformant Kubernetes distribution is supported.
- Examples in this section include Google Kubernetes Engine (GKE), but the manifests are provider agnostic unless noted.

Image tags

- Use the `stable` tag by default for production deployments.
- If a release pinning policy exists, use the specific release tag (for example, `vX.Y.Z`).
- Avoid `unstable` in production. The `latest` tag is generally used for development workflows only.

Component map

- Backing services: PostgreSQL, Redis, InfluxDB (optional: Grafana).
- LogZilla components: Storage, Query, API (Gunicorn, Tornado, Celery worker), Ingest (syslog-ng, ParserModule, HTTP Receiver), and Front (NGINX UI).
- Ingress/Exposure: LoadBalancer Services for syslog/json/rfc5424/http ingest and an HTTP Ingress for UI/API/WebSocket.

What to do next

- GKE Quickstart:
  - GKE Quickstart (https://www.logzilla.ai/docs/kubernetes-deployment/gke-quickstart)
- Review prerequisites and cluster requirements:
  - Prerequisites (https://www.logzilla.ai/docs/kubernetes-deployment/prerequisites)
- Deploy backing services:
  - PostgreSQL (https://www.logzilla.ai/docs/kubernetes-deployment/postgres)
  - Redis (https://www.logzilla.ai/docs/kubernetes-deployment/redis)
  - InfluxDB (https://www.logzilla.ai/docs/kubernetes-deployment/influxdb)

- Configure shared ConfigMaps/Secrets:
  - Common Config and Secrets (https://www.logzilla.ai/docs/kubernetes-deployment/common-config-and-secrets)
- Deploy LogZilla components:
  - Storage Module (https://www.logzilla.ai/docs/kubernetes-deployment/storage-module)
  - Query Module (https://www.logzilla.ai/docs/kubernetes-deployment/query-module)
  - API Module (https://www.logzilla.ai/docs/kubernetes-deployment/api-module)
  - Ingest Module (https://www.logzilla.ai/docs/kubernetes-deployment/ingest-module)
  - Front End (https://www.logzilla.ai/docs/kubernetes-deployment/front-end)
- Expose services:
  - Ingress (GKE example) (https://www.logzilla.ai/docs/kubernetes-deployment/ingress-gke)
- Operate and tune:
  - Scaling and Tuning (https://www.logzilla.ai/docs/kubernetes-deployment/scaling-and-tuning)
  - Troubleshooting (https://www.logzilla.ai/docs/kubernetes-deployment/troubleshooting)