

LOGZILLA DOCUMENTATION

# Kubernetes Storage Module

LogZilla Storage module Kubernetes manifest with the StatefulSet, InfluxDB sidecar, and headless Service for event storage, dedup, and archiving

Kubernetes Deployment Overview · Generated June 12, 2026 · [logzilla.ai/docs/kubernetes-deployment/storage-module](https://logzilla.ai/docs/kubernetes-deployment/storage-module)

## Storage module manifest

The manifest below defines the Storage module StatefulSet with an InfluxDB sidecar and the `storage` headless Service. Replace the `storageClassName` if needed and review resource requests/limits.

```
---
apiVersion: v1
kind: Secret
metadata:
  name: sm-influxdb-secret
type: Opaque
stringData:
  INFLUXDB_ADMIN_USER: logzilla
  INFLUXDB_ADMIN_PASSWORD: <set-strong-password>
  INFLUXDB_USER: user
  INFLUXDB_USER_PASSWORD: <set-strong-password>
---
apiVersion: v1
kind: ConfigMap
metadata:
  name: sm-influxdb-multimap
data:
  INFLUXDB_DATA_MAX_VALUES_PER_TAG: "10000"
  INFLUXDB_DATA_MAX_SERIES_PER_DATABASE: "0"
  INFLUXDB_DATA_INDEX_VERSION: inmem
  INFLUXDB_LOGGING_FORMAT: json
  INFLUXDB_LOGGING_LEVEL: warn
  INFLUXDB_COORDINATOR_LOG_QUERIES_AFTER: 5s
  INFLUXDB_HTTP_LOG_ENABLED: "false"
  INFLUXDB_HTTP_ACCESS_LOG_PATH: ""
---
apiVersion: apps/v1
kind: StatefulSet
metadata:
  name: storage
spec:
  serviceName: storage
  podManagementPolicy: Parallel
  replicas: 5
  selector:
    matchLabels:
      name: storage
  template:
    metadata:
      labels:
        name: storage
    spec:
      enableServiceLinks: false
      containers:
        - name: storagemodule
```

```
terminationMessagePolicy: FallbackToLogsOnError
image: logzilla/runtime:stable
imagePullPolicy: Always
resources:
  requests:
    memory: 1Gi
    cpu: 2000m
  limits:
    memory: 4Gi
    cpu: 4000m
command:
  - /usr/lib/logzilla/bin/module_run
  - StorageModule
ports:
- containerPort: 11413
  name: ingest-port
  protocol: TCP
- containerPort: 81
  name: sm-api-port
  protocol: TCP
livenessProbe:
  failureThreshold: 3
  httpGet:
    path: /liveness
    port: sm-api-port
    scheme: HTTP
  periodSeconds: 10
  successThreshold: 1
  timeoutSeconds: 5
startupProbe:
  failureThreshold: 3
  httpGet:
    path: /readiness
    port: sm-api-port
    scheme: HTTP
  timeoutSeconds: 120
  initialDelaySeconds: 30
  periodSeconds: 10
  successThreshold: 1
readinessProbe:
  failureThreshold: 3
  httpGet:
    path: /readiness
    port: sm-api-port
    scheme: HTTP
  initialDelaySeconds: 5
  periodSeconds: 10
  successThreshold: 1
  timeoutSeconds: 1
envFrom:
  - configMapRef:
      name: log-multimap
  - configMapRef:
      name: module-multimap
```

```
- secretRef:
  name: internal-api-secret
env:
- name: DEDUP_WINDOW
  value: "5"
- name: INFLUXDB_HOST
  value: "localhost"
- name: INFLUXDB_COUNTERS_HOST
  value: "influxdb"
volumeMounts:
- name: sm-data
  mountPath: /var/lib/logzilla/
  readOnly: false
- name: sm-archives
  mountPath: /var/lib/logzilla-archive/
  readOnly: false
- name: influxdb
image: library/influxdb:1.8.10-alpine
resources:
  requests:
    memory: 1Gi
    cpu: 500m
  limits:
    memory: 4Gi
    cpu: 1000m
ports:
- containerPort: 8086
  name: api
  protocol: TCP
livenessProbe:
  failureThreshold: 3
  httpGet:
    path: /health
    port: api
    scheme: HTTP
  initialDelaySeconds: 30
  periodSeconds: 10
  successThreshold: 1
  timeoutSeconds: 5
readinessProbe:
  failureThreshold: 3
  httpGet:
    path: /health
    port: api
    scheme: HTTP
  initialDelaySeconds: 5
  periodSeconds: 10
  successThreshold: 1
  timeoutSeconds: 1
envFrom:
- configMapRef:
  name: sm-influxdb-multimap
- secretRef:
  name: sm-influxdb-secret
```

```
    volumeMounts:
      - name: influxdb-data
        mountPath: /var/lib/influxdb/
        readOnly: false
  volumeClaimTemplates:
  - metadata:
      name: sm-data
    spec:
      accessModes: [ "ReadWriteOnce" ]
      storageClassName: premium-rwo # replace as needed
      resources:
        requests:
          storage: 10Gi
  - metadata:
      name: sm-archives
    spec:
      accessModes: [ "ReadWriteOnce" ]
      resources:
        requests:
          storage: 10Mi
  - metadata:
      name: influxdb-data
    spec:
      accessModes: [ "ReadWriteOnce" ]
      resources:
        requests:
          storage: 1Gi
---
apiVersion: v1
kind: Service
metadata:
  name: storage
spec:
  clusterIP: None
  ports:
    - port: 11413
      targetPort: ingest-port
      protocol: TCP
      name: sm-ingest-port
    - port: 82
      protocol: TCP
      targetPort: qe-api-port
      name: query-events-api-port
  type: ClusterIP
  selector:
    name: storage
```

## Notes

- Update `storageClassName` fields per the cluster configuration, or remove to use the default StorageClass.

- The Storage module exposes an internal API on port 81 and a ZeroMQ ingest on port 11413. The headless service allows stable DNS names for StatefulSet members (e.g., `storage-0.storage`).