

zapier.georgelambert.org · Markdown indexes

VERAE TIME × ZAPIER

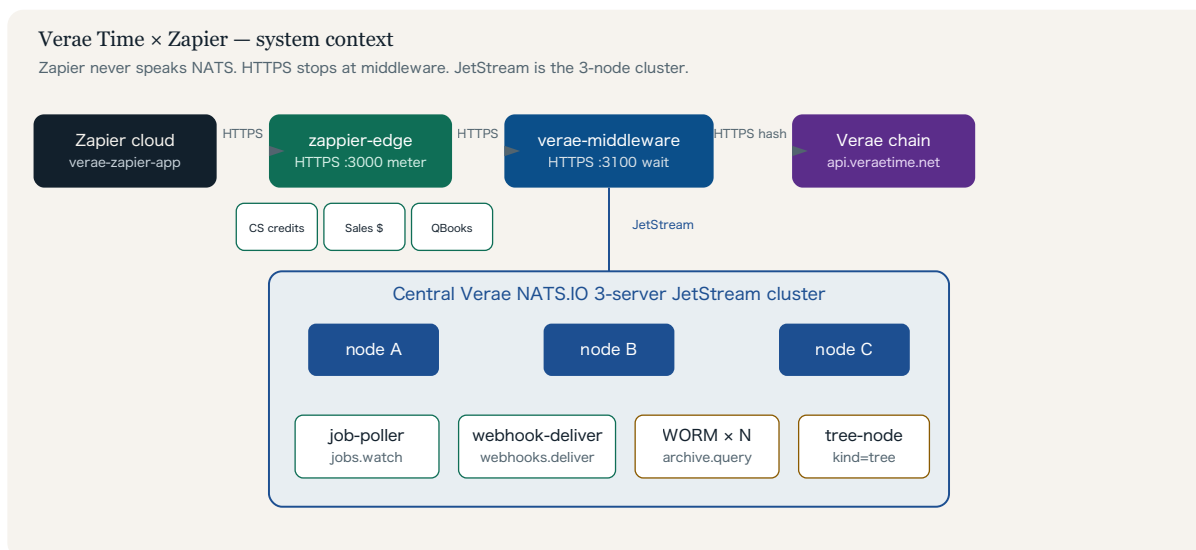
o8 diagrams

<site/overview/o8-diagrams.ed>

8. Architectural diagrams

SVG files in [diagrams/](#). The same shapes are repeated below in mermaid for Forgejo preview.

8.1 End-to-end (HTTPS vs NATS)



System

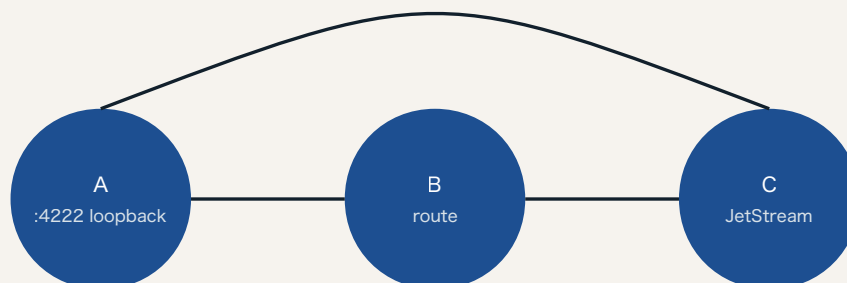
```

flowchart LR
    Z[Zapier cloud apps] -->|HTTPS x-api-key| E[zappier-edge]
    CS[customer-service] --> E
    SA[sales-pricing] --> E
    AC[accounting-export QuickBooks] --> E
    E -->|HTTPS metered| M[verae-middleware]
    M -->|HTTPS| C[Verae chain]
    C -->|JetStream| N[NATS 3-node cluster]
    N --> P[job-poller]
    N --> W[webhook-deliver]
    N --> A[archive-aggregator]
    N --> R[WORM x N]
    N --> T[tree-node x N]
    P -->|HTTPS status| C
    W -->|HTTPS REST Hook| Z

```

8.2 NATS.IO 3-server cluster

Verae NATS.IO — three JetStream servers



Cluster

```

flowchart TB
    subgraph cluster [Verae NATS.IO JetStream]
        N1[nats-server A :4222 loopback]
        N2[nats-server B]
        N3[nats-server C]
        N1 <--> N2
        N2 <--> N3
        N3 <--> N1
    end
    MW[middleware + workers] -->|cluster URL list| cluster
    F[fleet SSH hosts] -->|workers only| cluster

```

8.3 Uptime and failure

Uptime: floors, restart, another machine

healthy replica
counts toward min

paused / slow RTT
not available → spawn

/health fail or SSH down
restart or next host

JetStream replay
consumer catch-up

tree-node min=3 keepFloor

local + ns1 (marchon@70.88.205.138, ~/.ssh/id_ed25519). Least-loaded placement. Bloom miss = silence so a partitioned and
Zapier only sees HTTPS 202 / wait JSON / REST Hook. Cluster majority of 3 NATS servers survives one node loss.

Uptime

flowchart TD

```
H[health /health] -->|fail| R[restart instance]
P[pause] -->|not available| F[keepFloor spawn]
S[SSH host down] -->|spawn failed| O[place on next machine]
Q[archive.query broadcast] -->|bloom miss| SIL[silence]
Q -->|hit| REP[archive.reply.id]
```

8.4 New address = new process

New function = new address + clone of verae-nats-process

copy template repo
verae-nats-process

rename subjects
verae.area.resource.action

fleet min/max
keepFloor + machines

optional HTTPS
middleware only → Zapier

Existing: verae.zapier.jobs.* · verae.archive.put|query|reply.*

Unplanned search/store: verae.search.* or verae.store.* — same worker shape. Zapier never subscribes.
Broadcast queries: no queue group. Work queues: queue group. Bloom miss: no packet.

Routing

See [09-expansion-template.md](#).