

zapier.georgelambert.org · Markdown indexes

VERAE TIME × ZAPIER

README

[site/overview/README.md](#)

Verae Time × Zapier — system overview

High-level description of the whole system: what it is, which **independent git repositories** implement it, how it stays up, how it behaves when the local network fails, and how it talks to the **central Verae NATS.IO 3-server cluster**. New work is added by **new address routing**, not by teaching Zapier about NATS.

This repo: <https://git.georgelambert.org/marchon/overview>

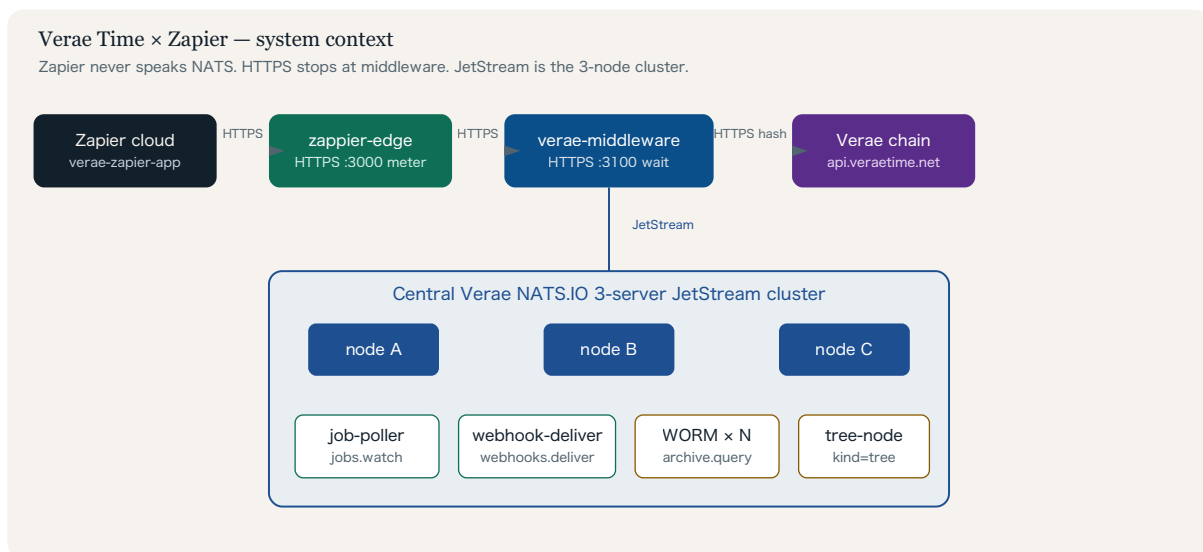
Live catalog (PDF by default): <https://zapier.georgelambert.org/> · [Markdown indexes](#)

Clone: `ssh://git@git.georgelambert.org:2223/marchon/overview.git`

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One-screen picture



System context

Zapier → HTTPS `zapier-edge` → HTTPS `vera-middleware` → **NATS cluster** → workers, WORM archives, tree nodes. Chain HTTPS is `api.veraetime.net` (or MOCK). Fleet keeps minimum copies, including tree nodes.

Independent repositories (Forgejo)

Repo	Role
overview	This document
verae-ops	Docker, Proxmox, VMs, dedicated hardware
verae-nats-process	Model for a new addressed process
master-zapier-plan-draft	Monorepo snapshot
zapier-edge	Metered public HTTPS
verae-middleware	Zapier HTTP + NATS workers
verae-zapier-app	Zapier Platform app
verae-activate	Activate-now app
verae-request-splitter	Hash vs attachments
verae-archive-worm	Bloom WORM node
verae-archive-aggregator	Archive reply merge
verae-tree-node	Merkle leaf proofs
verae-fleet	Replica floor + SSH hosts
verae-zapier-simulator	Trace console
zapier-user-docs	Signup → lookup
zapier-docs-master	Per-module SUMMARY + NATS

Clone any of them: `git clone ssh://git@git.georgelambert.org:2223/marchon/<name>.git` (SSH port **2223**).

Operator console (loopback)

Fleet, message **Trace**, and **Docs** share one shell at `http://127.0.0.1:3850/` (`verae-fleet`). Not public. See [CONSOLE.pdf](#).

LOOPBACK - NOT PUBLIC NATS
Verae operator console
Fleet, message trace, and docs in one shell. Pause does not count toward replica floors. SSH keys stay on disk.

Fleet Trace Docs

probe 2026-09-11T18:05:38.404Z · NATS nats://127.0.0.1:4222 · loopback :3850

MACHINES

id	host	kind	user	ssh port	identity file	capacity
ns1-b	70.88.205.138	ssh	marchon	22	~/.ssh/id_ed25519	8

roles
tree-node, archive-wor [Add machine](#)

local OPERATIONAL
Control plane (this host)
127.0.0.1
local · 7/32 running · 7 avail
RTT ms 0 / 0 / 0 / 0 n=1400
[disable](#)

ns1 OPERATIONAL
NS1.GEORGEAMBERT.ORG
marchon@70.88.205.138
ssh · 4/24 running · 4 avail
RTT ms 0 / 0.1 / 0.1 / 0.2 n=800
[disable](#) [ssh-check](#)

lan-134 DEGRADED
70.88.205.134
marchon@70.88.205.134
ssh · 0/12 running · 0 avail
[disable](#) [ssh-check](#)

SERVICES

SERVICE	STATE	FLOOR	RTT	INSTANCES
archive-aggregator Archive reply aggregator	OPERATIONAL	1 / min 1	RTT ms 0 / 0 / 0 / 0 n=200	UP archive-aggregator-0 @local :13400 pause resume on pause restart off
archive-worm Bloom-filtered WORM archive	OPERATIONAL	3 / min 3	RTT ms 0 / 0.1 / 0.1 / 0.2 n=600	UP archive-worm-0 @ns1 :13500 pause resume restart on pause UP archive-worm-1 @local :13501 pause resume restart off UP archive-worm-2 @ns1 :13502 pause resume restart
job-poller Job poller worker	OPERATIONAL	1 / min 1	RTT ms 0 / 0 / 0 / 0 n=200	UP job-poller-0 @local :13200 pause resume restart on pause off
middleware-http Verae Zapier HTTP middleware	OPERATIONAL	1 / min 1	RTT ms 0 / 0 / 0 / 0 n=200	UP middleware-http-0 @local :13100 pause resume on pause restart off

Fleet tab

LOOPBACK - NOT PUBLIC NATS
Verae operator console
Fleet, message trace, and docs in one shell. Pause does not count toward replica floors. SSH keys stay on disk.

Fleet Trace Docs

ZAPIER STEP (SIMULATOR)

Action
Create Batch Timestamps (Merkle summary)

Data / batch lines
invoice-1001
invoice-1002
invoice-1003

SHA256
4a01e265a7f1c2180ff3afb4115fb3d03bf93

Public metadata JSON
{"source": "zap"}

☐ includeAttached ☐ includeTree

FAULTS
☐ 402 ☐ drop events ☐ recover
[Run step](#) [Reset world](#) [Batch Merkle](#)
[Lookup leaf](#) [Lookup tree](#)

RESPONSE

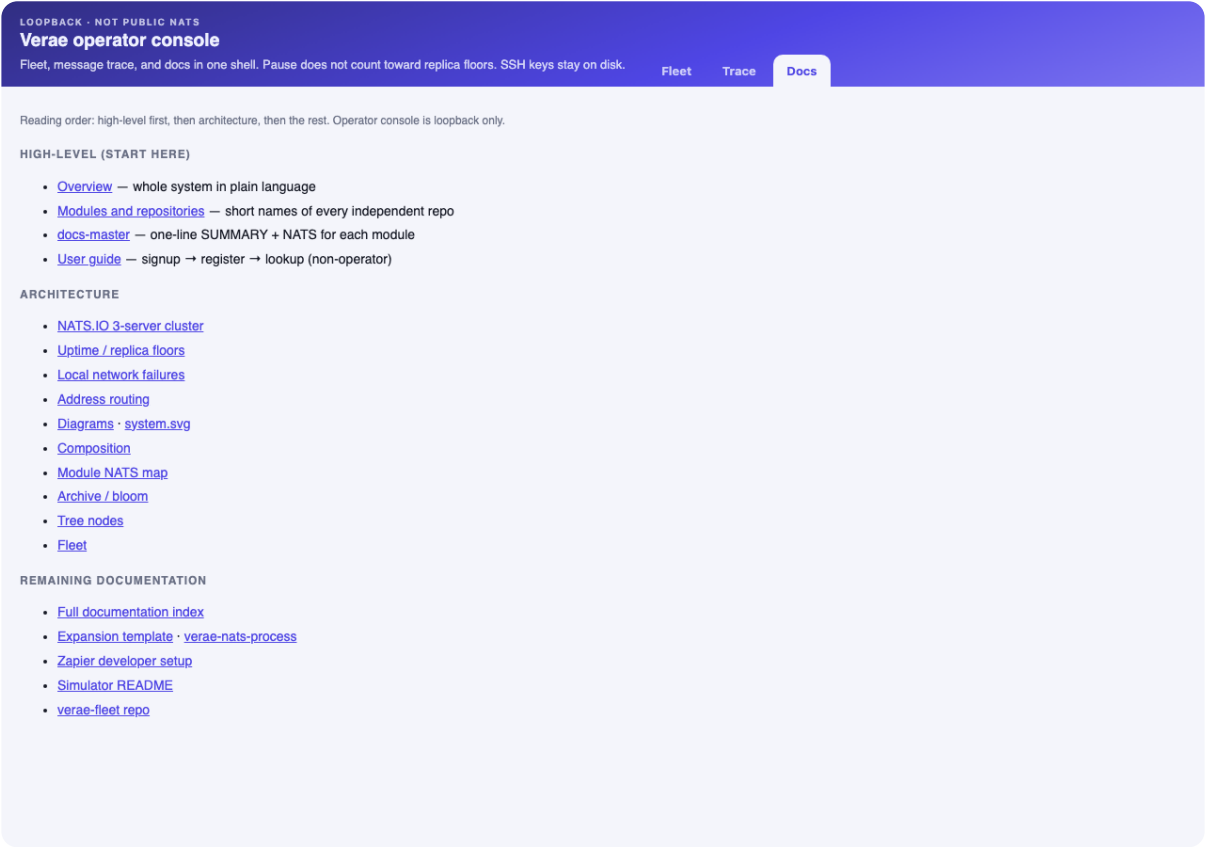
```
{
  "jobId": "8a19a802-d243-4ab2-98a6-cla4980fe195",
  "merkleRoot": "add6fc181a23b27b19abe0424a55c697b46d8d40a7ff4404db9516310d5bb12a",
  "leafCount": 3,
  "leaves": [
    "4a01e265a7f1c2180ff3afb4115fb3d03bf93c4d7b51bd1d383eee50ddde90e0",
    "468a62faf8e557034102d8a0a0ae04ac52c3d74025b3de51e02d56bc982cf57c",
    "385288c75f7bb1e7feld1da763258d19554becc0517c67a7ac2fd43e29256127"
  ],
  "status": "accepted",
  "note": "Look up a member hash with Find Hash (tree nodes), not central-chain lookup alone."
}
```

HOP TRACE

```
0ms → zapier-platform-app perform zapier://action/batch_timestamp - Zapier cloud perform(z, bundle). HTTPS only.
0ms → zapier-edge auth HTTPS x-api-key
0ms → zapier-edge meter HTTPS → middleware - Rate card × tier - monthly credit
1ms → middleware-http POST /zapier/v1/timestamp/batch HTTPS /zapier/v1/timestamp/batch
1ms → verae-tree-node buildMerkle - Only the root will be itemized on the main Verae chain
2ms → verae-chain-client create HTTPS api.veraetime.net (MOCK) - Individual item hashes are NOT written to the chain
3ms → tree-node-east put verae.archive.put
3ms → tree-node-west put verae.archive.put
3ms → tree-node-central put verae.archive.put
3ms → middleware-http publish verae.zapier.jobs.watch
3ms → job-poller publish verae.zapier.jobs.events
3ms → middleware-http response HTTPS 202
3ms → zapier-platform-app output zapier://action/batch_timestamp - Returned to Zap step / task history
```

MONITORS
OPERATIONAL 13 hops · 0 errors

Trace tab



Docs tab

Where to read next

Start at the top. Architecture is second. Everything else is reference.

1. High-level (non-technical)

Document	What it is
This overview	Whole system in one place
Modules and repositories	Short names of every independent repo
zapier-docs-master	One-line SUMMARY + NATS per module
zapier-user-docs	Signup → register a hash → lookup

2. Architecture

Document	What it is
NATS 3-server cluster	Who may connect; private URLs
Uptime	Replica floors, restart, SSH hosts
Local network failures	Reconnect, bloom silence, failover
Address routing	Unplanned functions as new subjects
External resources	Chain, WORM, tree-node search
Diagrams	SVG + mermaid
Fleet	Operator replica control
Module NATS map	Address table
Archive / bloom	Multipart and multi-receipt
Tree nodes	Bulk Merkle leaves
Composition	zappier + middleware HTTPS

3. Remaining documentation

Document	What it is
Documentation index	A–Z and catalog URLs
Expansion template / verae-nats-process	Copy this to add an address
Operator console	Screenshots of Fleet / Trace / Docs
Simulator	Standalone trace (also inside the console)
Zapier developer setup	CLI / login / push
Live catalog	https://zapier.georgelambert.org/ (PDF) · Markdown indexes

Credits

Design: **Scott Lindsey**, **George Lambert**, **NATS.IO**, and **Grok-Code** by [Grok.com](#).