

The Node.js Zero-Code Observability Checklist

Eight Dockerfile lines, zero app code — ship it disabled, flip it on with one env var.

■ BAKE IT INTO THE IMAGE

- ☐ Install without touching app deps, in the runtime stage: `npm install --no-save @opentelemetry/auto-instrumentations-node`
- ☐ Preload the hook into the Node process: `NODE_OPTIONS="--require @opentelemetry/auto-instrumentations-node/register"`
- ☐ Ship it disabled by default, baked into the image: `OTEL_SDK_DISABLED=true`

■ FLIP IT ON AT DEPLOY TIME

- ☐ Enable the SDK: `OTEL_SDK_DISABLED=false`
- ☐ Name the service: `OTEL_SERVICE_NAME=zenthos-web`
- ☐ Point at your collector: `OTEL_EXPORTER_OTLP_ENDPOINT=http://tempo:4318`
- ☐ Set the export protocol: `OTEL_EXPORTER_OTLP_PROTOCOL=http/protobuf`
- ☐ Set the sampler: `OTEL_TRACES_SAMPLER=parentbased_traceidratio`
- ☐ Set the sample rate, a sane production start: `OTEL_TRACES_SAMPLER_ARG=0.25`

■ CONTROL COST AND NOISE

- ☐ Trim libraries you don't need traced: `OTEL_NODE_ENABLED_INSTRUMENTATIONS`
- ☐ Filter health-check and readiness-probe routes at the collector, not the app
- ☐ Run a collector once you have more than one service — it batches, retries, and enables tail sampling

■ VERIFY BEFORE YOU TRUST IT

- ☐ Confirm spans exist for http/https, undici (fetch), express/fastify, pg/mysql2/mongodb/ioredis, grpc, and the AWS SDK
- ☐ Test the kill switch: set `OTEL_SDK_DISABLED=true`, restart, confirm exports stop instantly