

DTRC Observability Platform

Offline setup guide — generated from this repository's configuration docs. Grafana, Prometheus, Loki, Tempo, Alertmanager and BookStack behind a TLS-terminating nginx edge.

Platform components

Grafana	Dashboards, alert rules and unified query UI for every datasource.
Prometheus	Metrics scraping, recording rules and alert evaluation.
Loki	Log aggregation with label-based indexing, fed by Promtail.
Tempo	Distributed tracing storage with trace-to-logs correlation.
Alertmanager	Alert routing, grouping, silencing and notification delivery.
BookStack	Runbook and documentation wiki served on its own vhost.
nginx	TLS termination, ops IP allow-listing and basic-auth for internals.

Install steps

1. Prepare the host

Provision a Linux host with Docker Engine 24+ and the Docker Compose plugin. Allow inbound TCP 80 and 443 from the internet (Let's Encrypt) and restrict all other ports to your ops network.

2. Point DNS at the host

Create A records for both OBS_DOMAIN and WIKI_DOMAIN resolving to the host's public address. Certificate issuance fails until both names resolve.

3. Create the environment file

Copy .env.example to .env and replace every CHANGE_ME_* value. The web setup wizard (/setup) validates each field and generates this file for you.

4. Validate the configuration

Run scripts/validate-config.sh (or npm run validate) to lint the Prometheus, Loki, Tempo, Alertmanager and Grafana provisioning files before starting.

5. Start the stack

Run docker compose up -d. On-prem installs can instead use ./deploy/onprem/install.sh, which generates BookStack secrets and the ops basic-auth password interactively.

6. Verify

Sign in to Grafana at https://OBS_DOMAIN with GRAFANA_ADMIN_USER, confirm the Prometheus, Loki and Tempo datasources report healthy, and check that the BookStack wiki loads at https://WIKI_DOMAIN.

Environment variables

Every value below lives in `.env`. Replace all `CHANGE_ME` placeholders before the first start.

Domains

Variable	Default	Notes
<code>OBS_DOMAIN</code>	<code>clientmon1.dtrc.co.in</code>	Primary observability platform domain (Grafana, Prometheus, Loki, Alertmanager).
<code>WIKI_DOMAIN</code>	<code>clientwiki1.dtrc.co.in</code>	Documentation wiki domain (BookStack), served as a separate vhost.

TLS / certificate provisioning

Variable	Default	Notes
<code>TLS_MODE</code>	<code>letsencrypt</code>	<code>letsencrypt</code> = use Let's Encrypt (requires public DNS + ports 80/443) <code>internal</code> = use self-signed certificates generated by <code>scripts/generate-certs.sh</code>
<code>LETSencrypt_EMAIL</code>	<code>CHANGE_ME_LETSencrypt_EMAIL</code>	Email address used for Let's Encrypt registration and expiry notices.

Operational access control

Variable	Default	Notes
<code>OPS_ALLOWED_CIDRS</code>	<code>10.0.0.0/8, 172.16.0.0/12, 192.168.0.0/16</code>	Comma-separated list of CIDRs allowed to reach ops-only endpoints (<code>/prometheus/</code> , <code>/loki/</code> <code>query</code> , <code>/alertmanager/</code> , and the wiki). Narrow this to your actual ops/bastion network before go-live.

Time zone

Variable	Default	Notes
<code>TZ</code>	<code>Asia/Kolkata</code>	—

Grafana

Variable	Default	Notes
<code>GRAFANA_ADMIN_USER</code>	<code>admin</code>	—
<code>GRAFANA_ADMIN_PASSWORD</code>	<code>CHANGE_ME_GRAFANA_ADMIN_PASSWORD</code>	—

Retention

Variable	Default	Notes
<code>PROMETHEUS_RETENTION</code>	<code>30d</code>	How long Prometheus keeps time-series samples.

Variable	Default	Notes
LOKI_RETENTION	90d	Target log retention period in days. This value is documented here and should be kept in sync with <code>limits_config.retention_period</code> in <code>loki/loki-config.yaml</code> .

BookStack (wiki) database and application secrets

Variable	Default	Notes
BOOKSTACK_DB_ROOT_PASSWORD	CHANGE_ME_BOOKSTACK_DB_ROOT_PASSWORD	The on-prem installer auto-generates these if they still start with <code>CHANGE_ME</code> . For AWS they are pulled from Secrets Manager; the values below are only used as placeholders that the installer replaces.
BOOKSTACK_DB_PASSWORD	CHANGE_ME_BOOKSTACK_DB_PASSWORD	—
BOOKSTACK_APP_KEY	CHANGE_ME_BOOKSTACK_APP_KEY	Generate a real key with: <code>openssl rand -base64 32</code>

Next steps

- Narrow `OPS_ALLOWED_CIDRS` to your bastion or VPN range before go-live.
- Rotate the ops basic-auth credentials in `nginx/auth/ops.htpasswd`.
- Review retention: `PROMETHEUS_RETENTION` and `LOKI_RETENTION` drive disk sizing.
- Configure Alertmanager receivers so alerts reach a real on-call channel.
- Schedule backups of the Grafana, Prometheus and BookStack volumes.