JioCloud

Deep Tracing

Overview

JioCloud's Deep Tracing gives you a real-time lens into how requests flow across your applications—no matter where they run. Whether it's a container in Kubernetes, a VM in the cloud, or a hybrid setup, you get the full picture. It traces every span, connects the dots between services, and highlights exactly where things go wrong. Your teams can cut through the noise, respond faster, and rely less on hunches. And because it works with the JioCloud Observability Suite, you can move from a spike in latency to root cause in just a few clicks—logs, metrics, traces, all in one place.

Key Features

- **Full-path visibility**
  Follow each request as it moves across services with span-level context.

- **Smart sampling**
  Use adaptive and tail-based sampling to capture what matters without adding load.

- **Real-time service maps**
  Visualise service dependencies and performance issues as they unfold.

- **Advanced filtering**
  Find problem spans fast with filters by service, error code, duration, or tags.

- **Error and anomaly detection**
  Spot unusual behaviors or failed transactions immediately.

- **Root cause tracing**
  Go straight to the source of slowdowns - whether it's infrastructure, a broken dependency, or bad code.

- **Exportable detailed traces**
  Export span-level trace records for audits, compliance, or RCAs.

- **Unified log and metric links**
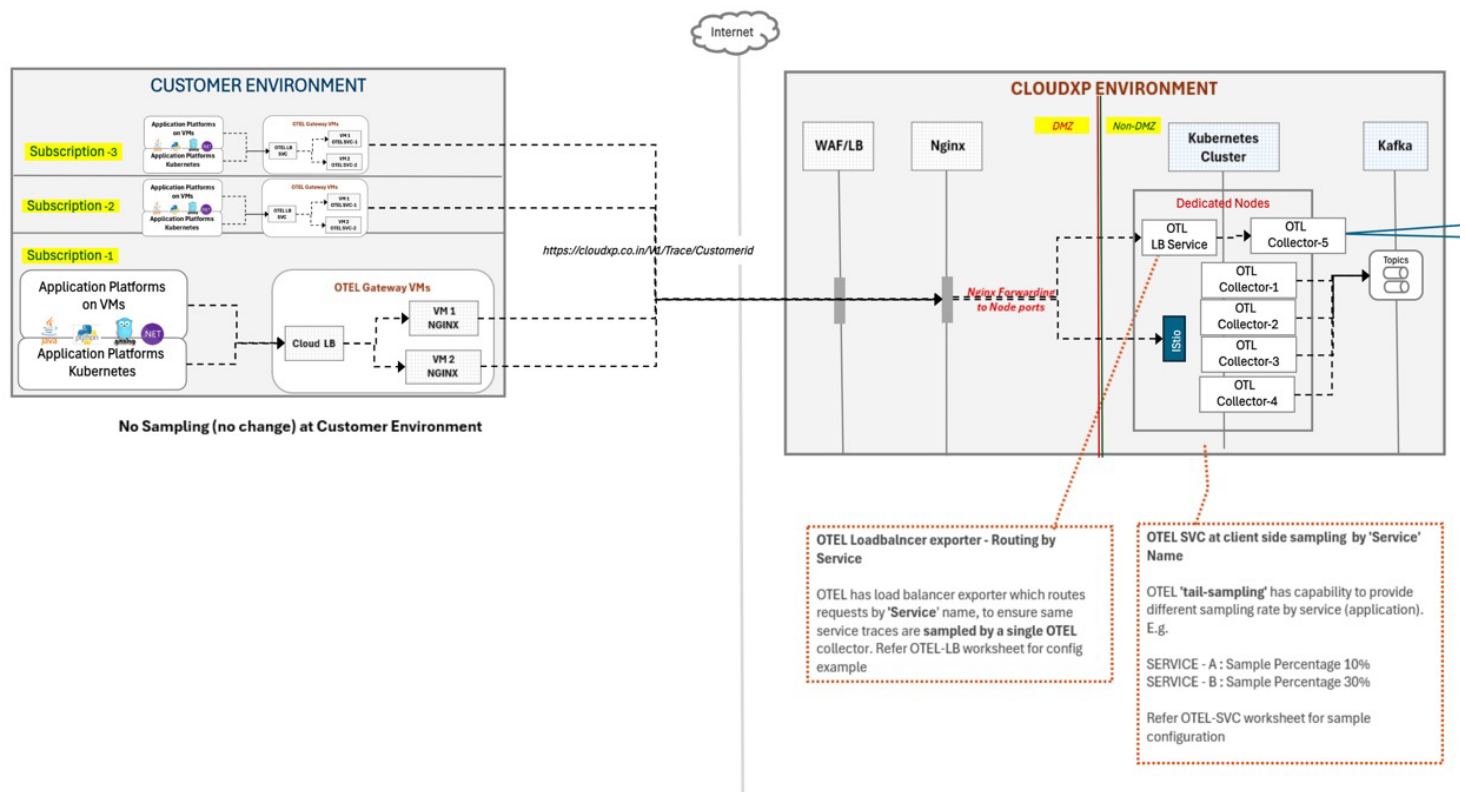 Jump from trace to log or metric instantly to get the full picture.

Benefits

- **Resolve issues faster**
  Reduce MTTR by up to 80% with precise, correlated insights.

- **One view of everything**
  Get visibility across APIs, infrastructure, services, and third-party systems.

- **More reliable systems**
  Detect issues early and fix them before users feel the pain.

- **Faster debugging**
  Give developers and SREs the exact span they need to investigate.

- **Fewer tools, better focus**
  Work within a single observability ecosystem - no more jumping between dashboards.

Languages Supported

Java	PHP
Python	JavaScript (JS)
Node.js	Ruby on Rails
Angular	Erlang
React	C++
.Net	Android
Go (GoLang)	iOS
PHP	Flutter

CUSTOMER ENVIRONMENT

Subscription -3
Subscription -2
Subscription -1

Application Platforms on VMs
Application Platforms Kubernetes
OTEL Gateway VMs
Cloud LB
VM 1 NGINX
VM 2 NGINX

https://cloudxp.co.in/V1/Trace/Customerid

No Sampling (no change) at Customer Environment

CLOUDXP ENVIRONMENT

WAF/LB | Nginx | DMZ | Non-DMZ | Kubernetes Cluster | Kafka

Dedicated Nodes
OTL LB Service
OTL Collector-5
OTL Collector-1
OTL Collector-2
OTL Collector-3
OTL Collector-4
Topics

Nginx Forwarding to Node ports

Internet

OTEL Loadbalncer exporter - Routing by Service

OTEL has load balancer exporter which routes requests by '**Service**' name, to ensure same service traces are **sampled by a single OTEL** collector. Refer OTEL-LB worksheet for config example

OTEL SVC at client side sampling by 'Service' Name

OTEL '**tail-sampling**' has capability to provide different sampling rate by service (application). E.g.

SERVICE - A : Sample Percentage 10%
SERVICE - B : Sample Percentage 30%

Refer OTEL-SVC worksheet for sample configuration

Use Cases

- **Track the full journey**
  From the moment a user taps 'Buy Now' in your app, JioCloud Deep Tracing follows the entire path: authentication   inventory   pricing   payment - every service, every hop.

- **Pinpoint the problem**
  If checkout is lagging, the tracer highlights exactly where it's stuck - maybe a delayed external API or a slow database call - so your team fixes it before users drop off.

- **Cut through complexity**
  Span-level visibility lets you see what happened, where, and why - without guessing or toggling tools.

- **Stay ahead of impact**
  Spot issues before they escalate into cart abandonments, support tickets, or revenue loss.