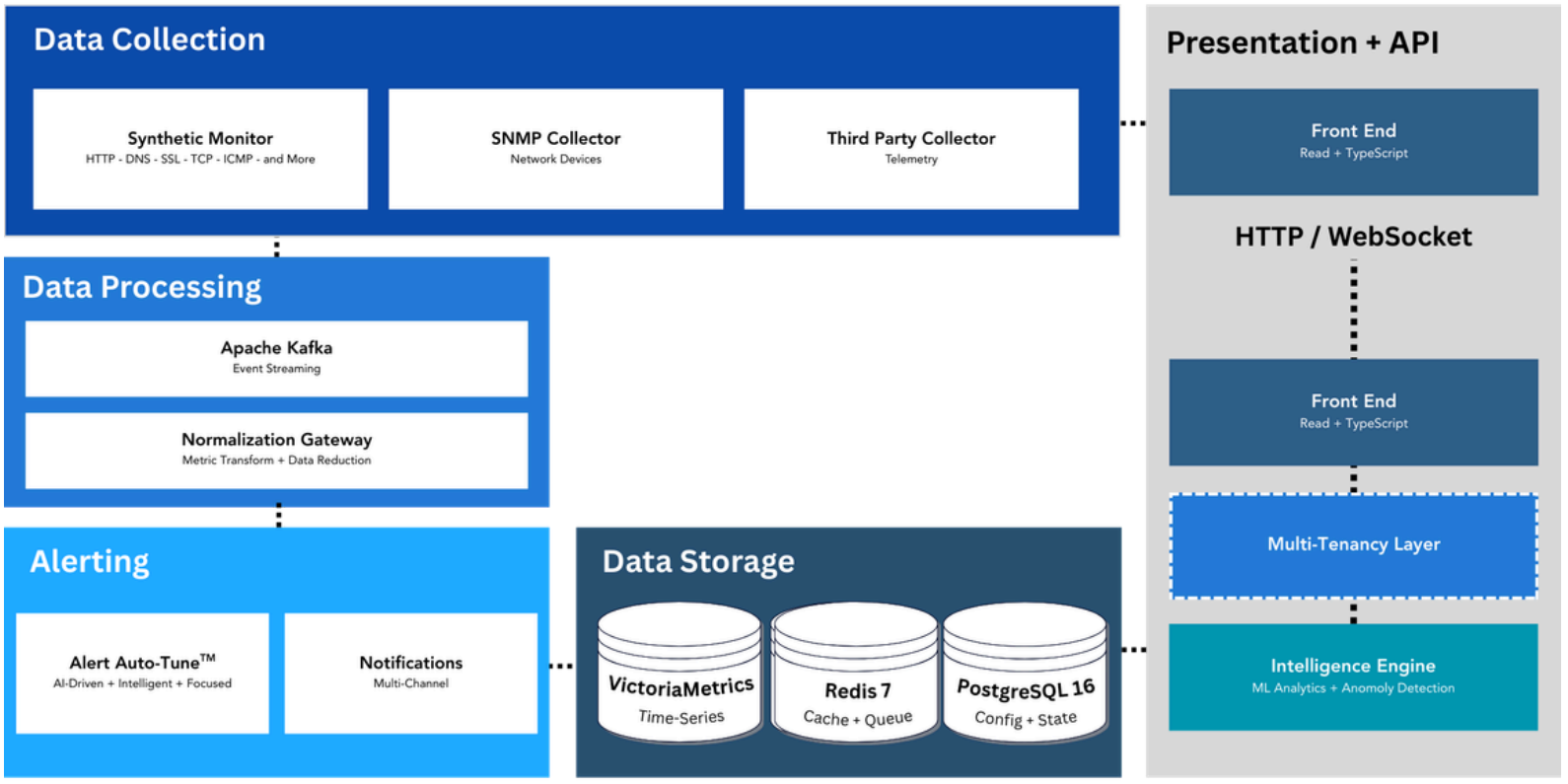
Parlon Technical Architecture

A modern observability platform built for distributed and AI-driven infrastructure



Parlon is a modular observability platform that actively collects, normalizes, and analyzes telemetry across infrastructure, applications, and AI workflows. It moves beyond passive metrics to reveal real system behavior and prepare data for AI-driven analysis.

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Core Architectural Principles

- Active-first observability: synthetic validation augments passive telemetry
- Normalized data fabric: telemetry is structured and contextualized at ingestion
- Streaming by default: data is available in real time for alerting, AI and ML pipelines, and export
- Deployment flexibility: SaaS, on-prem, hybrid, and MSP-ready

Platform Layers

Data Collection
Synthetic monitors, SNMP, third party telemetry
Data Processing
Kafka-based streaming + normalization gateway
Data Storage
Time series, cache/queue, configuration/state
Intelligence Engine
Anomaly detection, predictive analytics
API & Presentation Layer
Unified API, RBAC, multi-tenancy, dashboards

Core Technical Capabilities

Active & Synthetic Validation

- HTTP, DNS, SSL, TCP, ICMP and additional synthetic testing protocols
- End-to-end path validation across providers and regions
- LLM-aware workflow testing (not just endpoints)
- Detects latency, failures, and routing instability before users are impacted

Why This Matters

- Normalizes metrics, events, and path data into a unified telemetry fabric
- Eliminates vendor-specific schemas and data silos
- Enables accurate correlation across infra, apps, and AI workflows
- Reduces downstream storage, alert noise, and query complexity

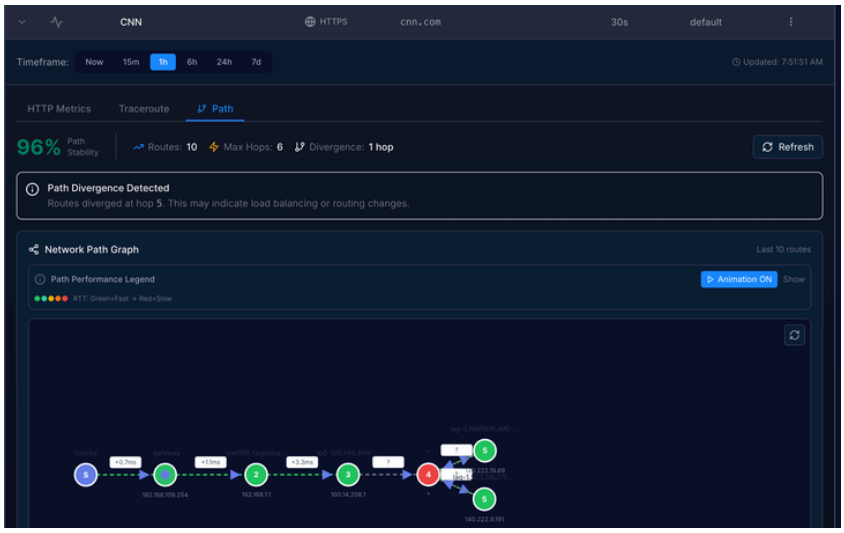
Intelligence + Analytics

- AI-driven behavioral baselining and drift detection
- Path stability and divergence analysis
- Predictive signals for performance degradation
- Alert auto-tuning to suppress noise and surface impact

Open by Design

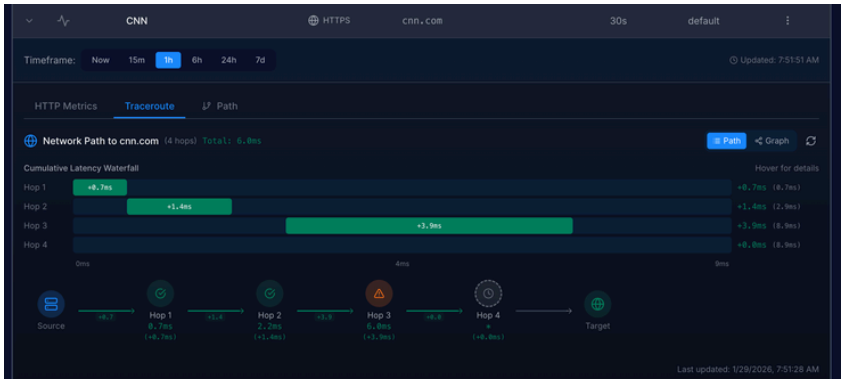
- REST
- Streaming export to SIEMs, compliance tools, and data platforms
- Designed for tool consolidation, not lock-in

Product in Action: Real-World Infrastructure Behavior



Network Path Divergence Detection

- **Detects** real-time network path divergence, even when availability appears healthy
- **Highlights** routing instability caused by load balancing or upstream network changes
- **Surfaces** hidden latency risks that traditional uptime or aggregate metrics miss



Traceroute & Latency Waterfall

- **Visualizes** cumulative latency introduced at each network hop along the request path
- **Pinpoints** where latency is introduced: local network, backbone, or downstream provider
- **Accelerates** root cause analysis for global and latency-sensitive applications

HTTP Performance Breakdown

- **Breaks** total request latency into DNS, TCP, TLS, server (TTFB), and download phases
- **Separates** network, server, and client-side contributors to performance degradation
- **Enables** faster isolation of whether slowness originates in infrastructure or application layers

Parlon reveals how modern infrastructure actually behaves, so teams can act before performance degrades or users are impacted.