



CONFLUENT

# Magnify: Enhance Visibility into System Operations



## What We Offer

Persistent created an observability solution called Magnify, a fully extensible platform built around OpenTelemetry and Confluent, for customers seeking a comprehensive observability stack for their IT infrastructure.

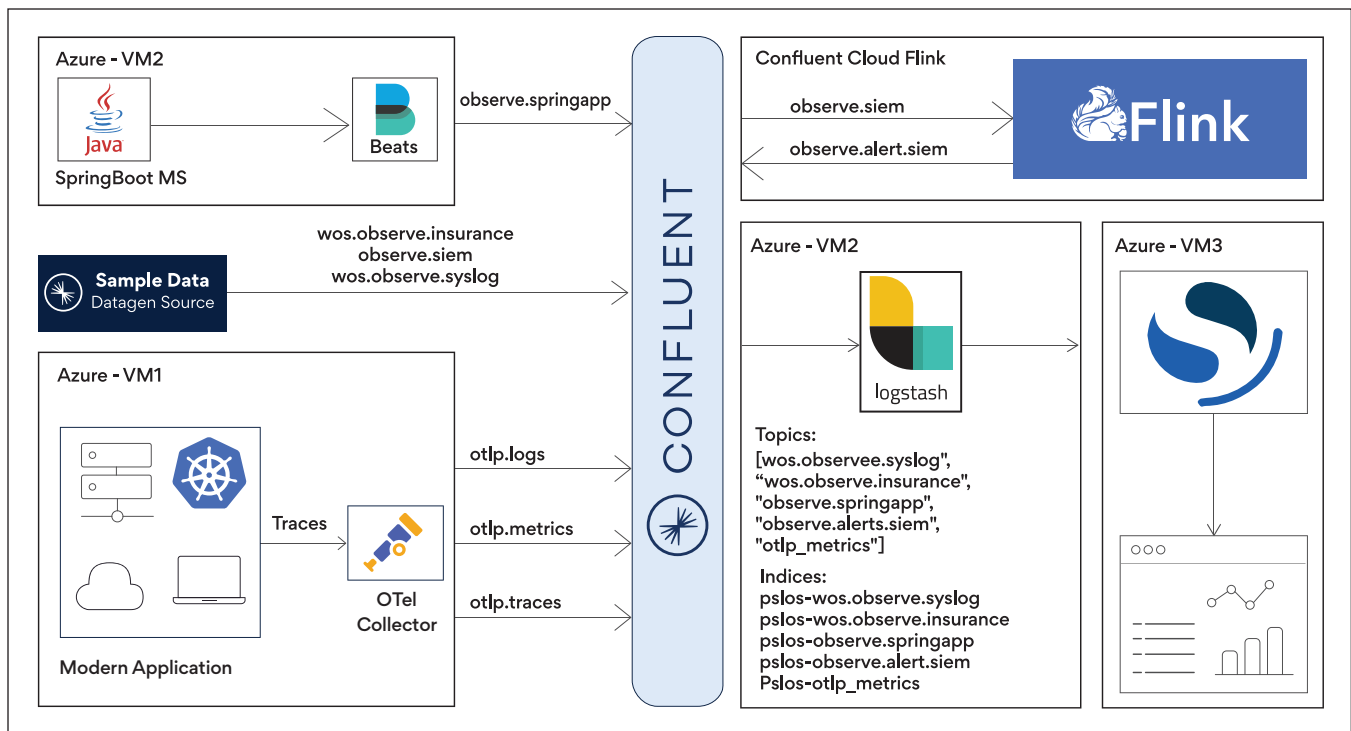
By leveraging these technologies combined with OpenTelemetry, our robust observability solution Magnify provides us with deep insights into systems' operations, enabling us to detect anomalies and ensure optimal performance and reliability.

This holistic approach to observability reinforces our commitment to delivering high-quality software and services to our customers.

## Why Magnify?

Magnify is a fully extensible platform built for customers seeking a comprehensive observability stack for their IT infrastructure. At Persistent, we are dedicated to empowering our clients with cutting-edge tools and technologies that will help them achieve exceptional levels of observability and operational excellence. Looking ahead, we are committed to continuously enhancing and evolving Magnify to meet the evolving needs of our clients and the challenges of modern software development and operations. Our near-future vision is to integrate advanced Machine Learning (ML) and AI-driven analytics to enable predictive insights, automate anomaly detection, and reduce resolution time.

## Magnify Demo Architecture



## Building Blocks

### OpenSearch

- OpenSearch is a distributed search and analytics engine based on Apache Lucene.
- Full Text Search could be performed once the data is loaded.

### Kafka Streams

- It performs complex event processing, windowing, and stateful computations on the log data received from Kafka in real-time.
- This will help for real-time event stream processing where data is on Kafka only.

### Beats

- Beats are installed agents to ship different kinds of data.
- Winlogbeat ships Windows event logs, Metric Beat ships host metrics and FileBeat ships log files.

### Kafka

- Kafka serves as the central hub for streaming data.
- File Beats and OTel Collector send their data to Kafka topics.

### OTel Collector

- Receives, processes and exports the logs from modern applications supporting OTel e.g. Infra logs.
- Kafka exporter is used to export logs to Kafka.

### LogStash

- Ingests, aggregates and transforms traditional logs from different applications.
- The transformed data is published to Kafka using LogStash Kafka output plugin.

### Flink

- It performs complex event processing, windowing, and stateful computations on the real-time and batch data.
- Generate new events for anomaly detection and predictive analytics.

### Alerting System

- Custom component responsible for sending the alerts to the users in the form of Email, SMS, etc.
- This component will receive a notification from Flink for the alerts to be generated.

### Predictive Analytics

- Component responsible for generating the predictive analytics based on Historical data.
- This will generate the preemptive alerts.

### OpenSearch Dashboard

- OpenSearch Dashboards provides a fully integrated solution for visually exploring, discovering, and querying your observability data.

## Solution Differentiators

- One comprehensive solution for complete observability requirements.
- Scalable solution due to use of components like Kafka, OpenSearch.
- Ability to use AI for Predictive Analytics preemptive alerting.
- Ready for Hybrid Infrastructure (Public Cloud, Private Cloud, OnPrem).
- Ability to include Hardware components under observability framework.
- Fully extensible design.

## Why Confluent?

### Confluent vs. OSS Kafka

Confluent provides a truly cloud-native experience, completing Kafka with a holistic set of enterprise-grade features to unleash developer productivity, operate efficiently at scale, and meet all your architectural requirements before moving to production. Underpinning the platform is our 99.99% uptime SLA and committer-driven expertise, providing support and services from the team with over one million hours of technical experience with Kafka.

### Reinvent Kafka

Run Kafka at massive-scale with a modern, cloud-based experience that can reduce TCO by up to 60%. Work with real-time events in the cloud, across multiple clouds, or on-premises.

### Data Streaming Platform

>5X ROI with accelerated data access and time to market and 25% reduction in data management total cost of ownership.

### Streaming Data Pipelines

- Decentralized: Allow teams closest to the data to create and share data streams across the enterprise.
- Governed :Balance self-service access with security and compliance rules by governing end-to-end.

## About Confluent

Confluent is the data streaming platform that is pioneering a fundamentally new category of data infrastructure that sets data in motion. Confluent's cloud-native offering is the foundational platform for data in motion — designed to be the intelligent connective tissue enabling real-time data, from multiple sources, to constantly stream across the organization. With Confluent, organizations can meet the new business imperative of delivering rich, digital front-end customer experiences and transitioning to sophisticated, real-time, software-driven back-end operations.

To learn more, please visit [www.confluent.io](http://www.confluent.io).

## About Persistent

Persistent Systems (BSE & NSE: PERSISTENT) is a global services and solutions company delivering Digital Engineering and Enterprise Modernization to businesses across industries. With over 24,500 employees located in 19 countries, the Company is committed to innovation and client success. Persistent offers a comprehensive suite of services, including AI-enabled software engineering, product development, data and analytics, CX transformation, cloud computing, and intelligent automation. The Company is part of the MSCI India Index and is included in key indices of the National Stock Exchange of India, including the Nifty Midcap 50, Nifty IT, and Nifty MidCap Liquid 15 as well as several on the BSE such as the S&P BSE 100 and S&P BSE SENSEX Next 50. Persistent is also a constituent of the Dow Jones Sustainability World Index. The Company has achieved carbon neutrality, reinforcing its commitment to sustainability and responsible business practices. As a participant of the United Nations Global Compact, Persistent is committed to aligning strategies and operations with universal principles on human rights, labor, environment, and anti-corruption, as well as take actions that advance societal goals. With 327% growth in brand value since 2020, Persistent is the fastest-growing IT services brand in the 2024 Brand Finance India 100 Report.

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