

Solution Brief

VAST InsightEngine

Real-Time AI Pipelines.
Fully Automated for the Enterprise.



VAST InsightEngine helps enterprises realize the promise of operational AI. With InsightEngine, companies can build and automate real-time AI pipelines that turn raw, unstructured data into operational intelligence. Built on the VAST Data Platform – and powered by VAST DataEngine – the VAST InsightEngine leverages the platform’s integrated vector search, serverless automation, and unified governance to eliminate the friction, latency, and complexity that have traditionally slowed AI adoption at scale

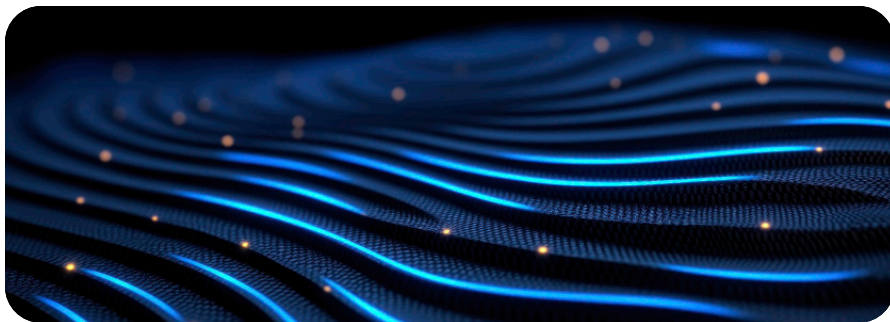
Automate AI Workflows from Ingest to Inference

VAST InsightEngine automates AI pipelines from the moment new data is ingested into the VAST Data Platform. It starts with the VAST DataEngine, where serverless triggers and functions are applied to launch tailored workflows that can chunk, embed, and finally store data and vectors in the VAST DataBase—making it instantly available for retrieval and inference. This real-time automation eliminates latency between data creation and AI action, enabling use cases like semantic search, summarization, classification, and anomaly detection. The VAST InsightEngine also triggers real-time vector retrieval workflows from the VAST DataBase powered by inferencing microservices on the VAST Data Platform. All workflows are fully customizable to meet specific application needs.

One Platform for Structured + Unstructured AI Workloads

Only the VAST Data Platform unifies file, object, block, and table data in a single system—built to support both structured and unstructured AI workloads. With a fully integrated vector database that can store and retrieve trillions of vectors in real time, VAST meets the scale, performance, and governance demands of enterprise AI while eliminating the need for multiple specialized systems. Now, organizations can power natural language queries, semantic vector search, and real-time AI operations all in one place. Whether you’re working with PDFs, videos, logs, or structured records, VAST InsightEngine enables intelligent retrieval and processing—without data movement or duplication.





Unified Governance and Scale for Enterprise AI

The VAST Data Platform is the only solution that delivers unified security, compliance, and control for AI at exabyte scale. VAST enforces fine-grained access controls across both raw and vectorized data, ensuring that AI pipelines remain secure and compliant end to end. Permissions are maintained from data source to inference, so only authorized users—or AI agents—can access sensitive content. Built on VAST's paradigm-shifting Disaggregated, Shared-Everything (DASE) architecture, the platform delivers real-time inferencing across massive datasets—without bottlenecks or operational complexity.

Make Operational AI a Reality

Organizations across industries are using VAST InsightEngine to drive AI-powered decisions directly from their raw data — no complex orchestration, no data duplication, no latency. From national security teams analyzing hours of surveillance video in real time, to life sciences researchers retrieving specific medical images from millions of records, to media and entertainment companies enabling natural language search across vast video archives for content tagging, rights management, and creative reuse—InsightEngine delivers AI at the speed of data creation. By removing the heavy lifting traditionally required to operationalize AI—such as data preparation, indexing, and pipeline coordination—InsightEngine empowers teams to focus on outcomes, not infrastructure.

Why VAST Data

Unified Data Management

Consolidate structured and unstructured data, supporting all analytics and AI workloads in a single platform.

Real-Time, Exabyte-Scale Performance

Scale effortlessly from petabytes to exabytes—delivering high-speed access and processing without complexity.

AI-Ready Infrastructure

Accelerate AI workflows with GPU-accelerated I/O, real-time vectorization, and automated inferencing.

Enterprise-Grade Security & Governance

Enforce fine-grained access control and unified policy management across raw, structured, and vectorized data—ensuring consistent security and compliance from source to inference.

Integrated Vector Search

Power natural language and semantic search in the same platform that stores your raw and structured data.

Seamless Collaboration

Enable secure, multi-site collaboration with a global namespace shared across locations and institutions.

About VAST Data

VAST Data is the leading data platform software company bringing businesses into the AI era. By accelerating time-to-insight for workload intensive applications, the VAST Data Platform delivers scalable performance, simplifies data management and enhances productivity. Launched in 2019, VAST has become the fastest-growing data infrastructure startup in history.

Looking to simplify your data center and unlock insights from all of your data?

Contact us at hello@vastdata.com

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