

## MARKET NOTE

# Bringing AI to Data: Oracle's Vision for Unified, AI-Embedded Databases at the 2025 Analyst Summit

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## EXECUTIVE SNAPSHOT

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### FIGURE 1

#### Executive Snapshot: Oracle 2025 Database Analyst Summit

Oracle's 2025 Database Analyst Summit highlighted its pragmatic, execution-focused vision for data and AI. The company's converged, multicloud, and AI-embedded databases and platforms are designed to help organizations manage complexity, accelerate innovation, and realize the full potential of their data in an increasingly AI-driven world. Oracle's approach reduces costs, enhances security, and simplifies development by embedding AI directly within databases. The summit showcased real-world applications and emphasized Oracle's multicloud strategy.

#### Key Takeaways

- Oracle is embedding AI directly into its core data infrastructure, reshaping enterprise data management by unifying data management, AI, and multicloud capabilities within a single platform. The database management system handles diverse data types within a single query engine, offering flexibility and performance.
- The integration of AI capabilities directly within databases blurs the lines between transactional, analytical, and vector processing, enhancing natural language querying and generative AI applications.
- Oracle's multicloud strategy allows the company's databases and AI services to operate natively on major cloud platforms, minimizing data movement and associated costs.
- Oracle's AI-integrated platform lowers infrastructure expenses, simplifies operations, and automates routine management tasks, freeing IT teams for innovation.

Source: IDC, 2025

## IN THIS MARKET NOTE

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Attending the Oracle Database Analyst Summit 2025 provided a firsthand look at Oracle's rapidly evolving strategy at the crossroads of databases, data platforms, and artificial intelligence. The event brought together industry analysts, Oracle executives, and customers to explore how Oracle is embedding AI directly into its core data infrastructure, fundamentally reshaping the future of enterprise data management.

## IDC'S POINT OF VIEW

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Oracle's latest advancements reflect a comprehensive strategy to unify data management, AI, and multicloud capabilities within a single, converged platform in Oracle Autonomous Database 23ai. The company's approach is rooted in building best-of-breed support for all data types and workloads while engineering them to work seamlessly together under one control plane. This unification not only eliminates the need for multiple specialized databases but also reduces data movement costs, minimizes security and privacy risks through unified access controls, and simplifies API access for developers. By automating manual database functions and integrating a co-engineered, tightly coupled hardware/software stack, Oracle aims to lower operational costs and solution latency while avoiding the fragmentation and consistency challenges that can arise from managing separate vector and business databases.

## AI Integration in Databases

A major theme at the summit, and one highlighted by IDC as a significant trend across the database and data platform industry, is the shift from simply supporting AI workloads on databases to embedding AI capabilities directly within the database itself. The boundaries between transactional and analytical processing are blurring in the market, especially in the AI era. Oracle AI Vector Search exemplifies this integration, offering unified search across business data, text, keywords, knowledge graphs, vectors, and spatial data. This enables organizations to combine traditional business queries with similarity and semantic search, making it easier to power natural language querying, generative AI (GenAI), and agent-based applications directly within the database.

Oracle is at the forefront of this movement, integrating generative AI and machine learning into offerings like Oracle Database 23ai, including features such as AI Vector Search, Select AI, and the low-code APEX AI Assistant, while HeatWave GenAI provides a vector store, data science toolkits, AutoML, and data labeling. These capabilities allow organizations to build, deploy, and operationalize AI models where their data resides, rather than moving data to external AI services. By making AI an integral part of the database rather than an external add-on, Oracle aims to streamline both AI-driven data

processing and data-powered AI workloads, reducing the complexity and costs of moving data between separate systems — and helping eliminate data fragmentation in the process. This "bringing AI to data" approach reduces latency, risk, and cost while helping support compliance and governance requirements.

## **Real-World AI Applications**

The summit featured numerous customer examples showcasing the benefits of Oracle's AI-integrated databases. A United States-based media company showcased how it can unify both structured and unstructured data with Autonomous Database 23ai and search its vast media archives 7x faster with Oracle AI Vector Search than with a competing product. A leading United States-based energy company shared that leveraging Oracle Database@Azure, specifically Autonomous Database Serverless, provided it with automatic patching, automatic immutable backups, automatic tablespace management, tuning, and partitioning, and it was ready to use in a matter of minutes.

A Latin American ecommerce company shared how it was leveraging Oracle HeatWave to deliver large-scale, personalized recommendations, showing the effectiveness of Oracle's integrated vector database for AI-powered personalization across millions of products. Oracle HeatWave GenAI, integrated with HeatWave MySQL, was also spotlighted for its automated vector store, in-database large language models (LLMs), and ability to run generative AI workloads without requiring specialized AI skills.

## **Multicloud Strategy**

Another major topic at the summit was Oracle's multicloud strategy, acknowledging that most enterprises now utilize multiple cloud providers. Oracle has deployed Oracle Database and Oracle Exadata on Oracle Cloud Infrastructure (OCI) within AWS, Azure, and Google Cloud datacenters enabling its databases and AI services to operate natively on these platforms with the same features and pricing as on OCI and without incurring data egress fees. Oracle positions itself not as a direct competitor to hyperscalers, but as a provider of highly performant, differentiated data, analytics, and AI services that customers can integrate tightly with partner's cloud services such as GenAI and data lakes. This approach continues Oracle's notion of "bringing AI to the data" and meeting customers where they are to minimize data movement, thereby lowering costs, reducing risk, and improving latency.

## **Unified Data Management and Integration**

A central theme of the summit was Oracle's dedication to a unified, converged database capable of handling diverse data types (including relational, vector, JSON, graph, geospatial, blockchain, and time series) within a single query and processing

engine, a vision that comes together in Oracle Database 23ai. Features such as Oracle's JSON Relational Duality Views allow developers to work with data in both relational and JSON formats, delivering NoSQL-like flexibility while maintaining the performance and security of SQL. This versatility is particularly valuable for AI and agent-based applications that demand seamless interaction with multiple data structures.

## **Cost Efficiency and ROI**

Oracle also emphasized the economic advantages of its AI-integrated data platforms. By unifying AI, analytics, diverse data types, and transactional workloads within a single, converged architecture, Oracle enables organizations to lower infrastructure expenses, simplify operations, and eliminate the costs and challenges associated with transferring data across multiple specialized systems. This reduces security exposure and total cost of ownership for the enterprise. The consolidation also enables faster insights and decision-making as well as simplified experiences for data personas. The unified database management system showcased at the summit delivers tangible benefits for the broader data management market.

In addition, Oracle Autonomous Database is a fully automated and managed Oracle Database that is available in OCI, Azure, Google Cloud, and AWS, enabling global organizations to migrate and run any workloads securely, from the simplest to the most mission critical. It runs on top of Real Application Clusters (RAC) on Exadata, providing the highest performance, availability, security, and scalability. In addition to scaling up to handle the most demanding applications, it also scales down to handle small applications with as few as two ECPU's (elastic CPUs).

## **Governance, Security, and Compliance**

Oracle tackled a key challenge in AI adoption in managing the operational demands of privacy, integration, and governance. Oracle Autonomous Database 23ai incorporates machine learning for AI-driven security and anomaly detection and threat remediation, enabling the system to identify threats, insider risks, and ransomware while helping support compliance with regulations such as HIPAA, GDPR, and CCPA.

The platform also offers fine-grained access controls and comprehensive auditing capabilities, helping safeguard sensitive data and helping ensure that AI-related activities remain transparent and aligned with enterprise compliance requirements.

### Synopsis

This IDC Market Note discusses the Oracle Database Analyst Summit 2025, which highlights Oracle's strategy to integrate AI directly into its databases, offering a unified platform that simplifies data management and enhances AI capabilities. By embedding AI within the database, Oracle reduces data movement costs, improves security, and streamlines operations. The summit showcased real-world applications and emphasized Oracle's multicloud strategy, enabling customers to seamlessly integrate Oracle Database with services in their choice of cloud. Oracle's approach aims to deliver measurable ROI, robust governance, and accelerated AI adoption for enterprises seeking to operationalize AI at scale.

Devin Pratt, research director, Data Management at IDC, says, "Oracle's AI-embedded databases redefine enterprise data management, unifying AI, analytics, and multicloud capabilities for streamlined operations and reduced costs."

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