


Viewpoint
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Accelerating Insight with Unified Data Platforms

All organizations strive to gain operational efficiency and competitive advantage using data and analytics. The combination of cloud computing and advanced analytics has lowered the cost of storing and processing large volumes of data with a view to identifying new business opportunities and responding to competitive threats.

Accumulating large volumes of data is a starting point, but the accumulation itself does not directly translate into intelligent decision-making. To do so, organizations must ensure that the right people have quick and easy access to the data required to make informed business decisions. This data must be pertinent, accurate and reliable, and should be ingested, integrated, prepared and processed at a high speed to facilitate decisive and accelerated decision-making.

Ensuring trust in data is more critical than ever given the proliferation of intelligent applications driven by generative artificial intelligence (AI). Generative AI promises to further lower the barriers to data-driven decision-making by automating complex and time-consuming processing tasks and providing automatically generated information and recommendations. A foundation of high-quality, reliable data is essential to ensuring that generative AI applications are delivering information and recommendations that business decision-makers can trust.

There are multiple opportunities to accelerate the generation of insight from data throughout its processing lifecycle. This starts with the initial generation of data from operational applications and data platforms, continues with data ingestion, integration and transformation pipelines, and concludes with the preparation, processing and visualization of data in analytic data platforms. Most organizations have invested in new tools and platforms to accelerate the processing of data at each of the stages of this lifecycle. The most advanced have gone one step further, adopting unified data platforms to reduce the number of tools and platforms that need to be combined to generate insight from data.

Traditional approaches to data processing rely on a complex and potentially brittle architecture based on multiple specialist products from multiple providers. To deliver insight from data, technology specialists need to manage not just the processing of data, but also the integration between multiple products. This leads to time and energy being spent on maintaining the connections between different technologies, especially as the business requirements grow and evolve. The more connections that data needs to pass through on its path from generation to business insight, the greater the potential there is for data to be lost, altered or corrupted as the environment scales to meet business demand, leading to data integrity concerns that decrease trust and delay decisions.

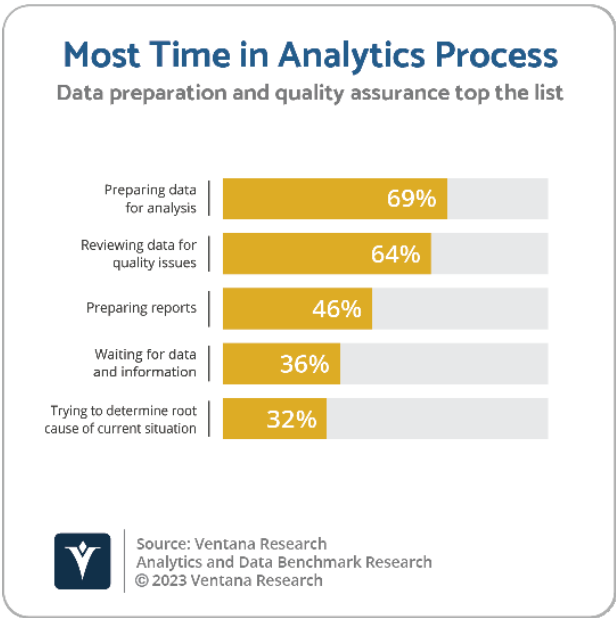
This issue is exacerbated by the increased use of multiple cloud providers, as well as ongoing use of on-premises infrastructure. By 2025, more than three-quarters of enterprises will have data spread across



multiple cloud providers and on-premises data centers, requiring investment in data management products that span multiple locations. As such, there is a growing requirement for cloud-agnostic data platforms, both operational and analytic, that can support data processing across hybrid IT and multi-cloud environments. For analytic workloads, this means data platforms that can access and query data in multiple locations. For operational workloads it means data platforms that can span multiple regions and data center resource providers. The increased use of multiple cloud providers and on-premises data centers also puts increased strain on data ingestion, integration and transformation pipelines, further raising the risk of data integrity problems.

Unified data platforms can help organizations improve access to data while lowering data reliability concerns and accelerating data processing and the generation of insight. The combination of operational data processing, data integration, data preparation and analytic data processing in a single environment reduces the need for manual maintenance and management of infrastructure and processing pipelines. A unified data platform provides data leaders with confidence that they have a strategic platform that can be used to address a variety of use-cases without complex integration of multiple products, facilitating self-service access to data and improving trust in data-driven applications. Combining cloud-based operational and analytic data platforms with native data integration and transformation environments targeted at the skills-sets of multiple user roles— from no-code through low-code to pro-code— provides a platform for accelerating insight by lowering the two most time-consuming aspects of analytics: preparing data for analysis and reviewing data for quality issues.

Key to being data-driven is the ability of the organization to quickly respond to evolving customer needs and changing competitive environments. To do so, organizations need to have confidence that they can quickly integrate and transform data using connectors and APIs to fast-track the development of new intelligent applications infused with personalization and contextually relevant information. Organizations also need to have confidence in clear, accurate and trusted data to train and complement generative AI models and enable self-service access for users in multiple roles. All organizations that seek to deliver competitive advantage using data should explore the potential benefits of unified data platforms combining storage and processing with data ingestion, integration and transformation functionality to accelerate the realization of business insight and the generation of value from the accumulated data.



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Matt leads the expertise in Digital Technology covering applications and technology that improve the readiness and resilience of business and IT operations. His focus areas of expertise and market coverage include: analytics and data, artificial intelligence and machine learning, blockchain, cloud computing, collaborative and conversational computing, extended reality, Internet of Things, mobile computing and robotic automation.