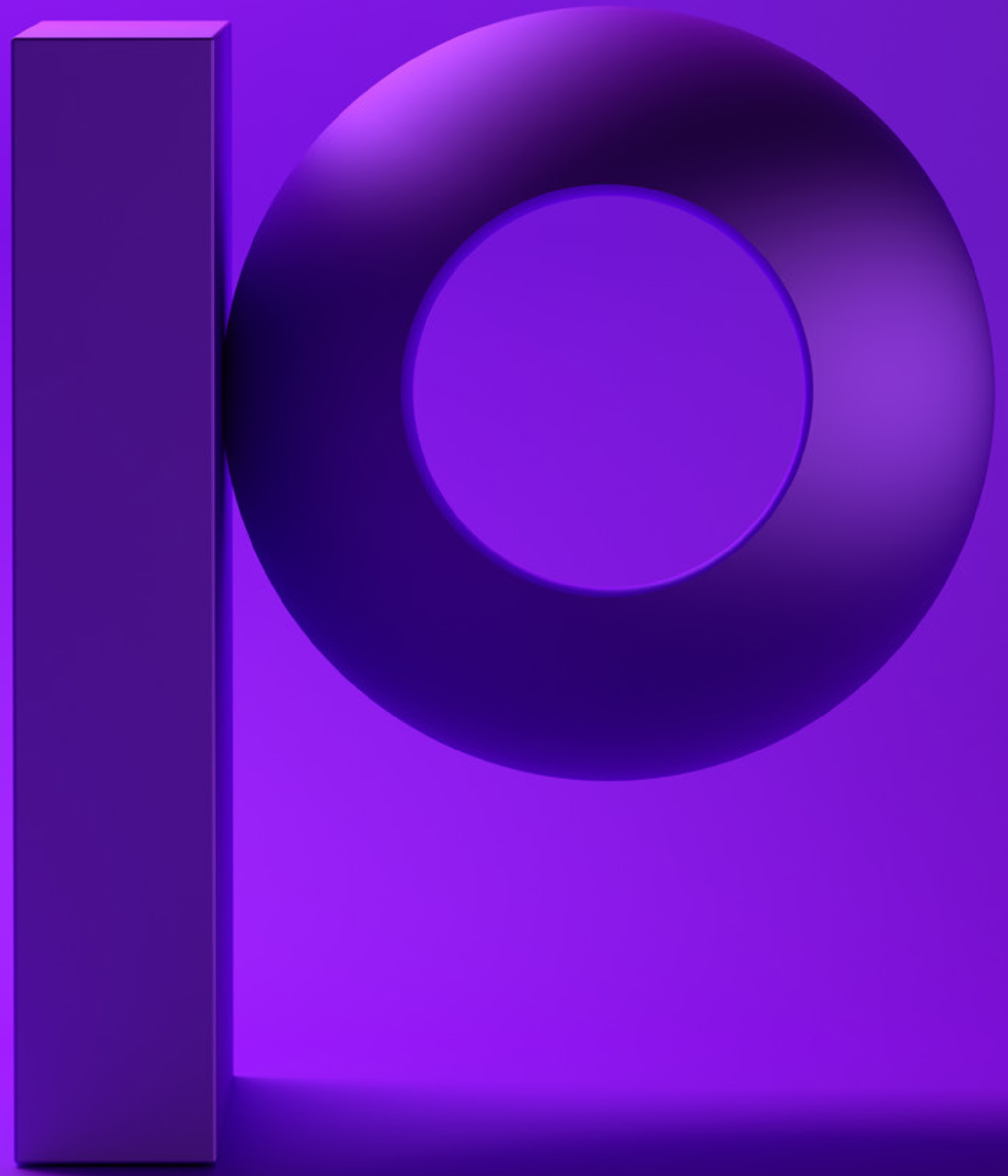
precisely

Achieving the Agentic AI Advantage

Closing the Data Integrity Gap with Agentic-Ready Data

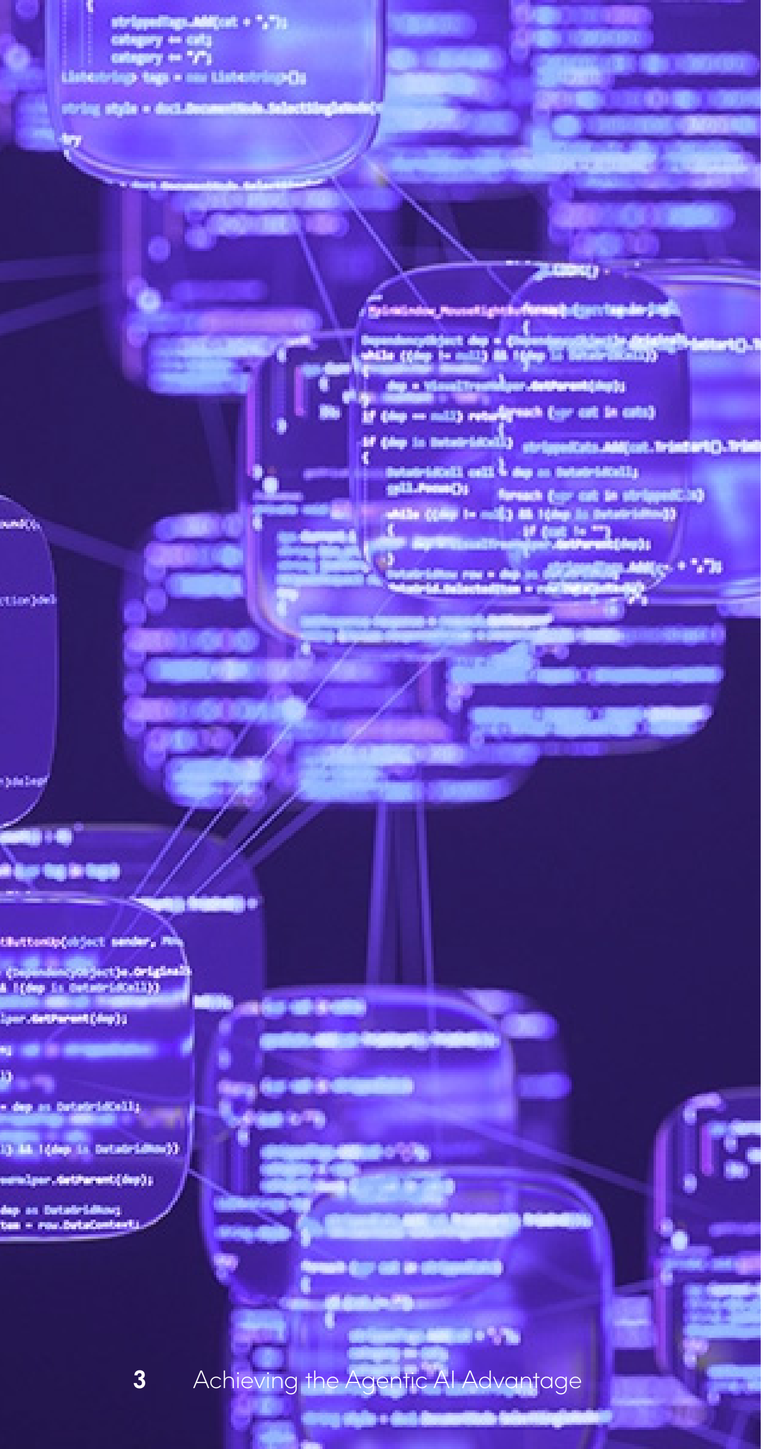


Agentic AI Raises the Standard for Data Integrity

Artificial intelligence is entering a new phase. Enterprises are moving beyond experimentation and productivity gains toward **Agentic AI**—systems designed to reason, decide, and take action autonomously across core business processes. This shift fundamentally changes what enterprise data must support and raises new expectations for the leaders responsible for it.

AI is delivering value today. Organizations are seeing gains in productivity, insight, and speed across a growing range of use cases. Yet for many enterprises, that value is not scaling fast enough to offset the cost and complexity of AI initiatives. According to McKinsey, **95 percent of AI initiatives are failing to deliver a positive return on investment**—not because AI does not work, but because it cannot be reliably operationalized at scale. As AI systems move closer to the execution path of the business, incremental gains are no longer sufficient.

*Source: MIT, "The GenAI Divide: The State of AI Business in 2025"



As organizations push AI deeper into core workflows, long-standing data integrity challenges are becoming impossible to ignore. For decades, enterprises have struggled with fragmented data across hybrid and multi-generational environments, inconsistent levels of quality, outdated information, and missing context—conditions that have limited the reliability of decision systems from analytics platforms and data warehouses to machine learning models.

What has changed is not the existence of these challenges, but their impact. In **Agentic AI** environments—where systems interpret signals, prioritize actions, and execute autonomously—data integrity failures no longer slow decisions or require human intervention. They directly shape outcomes. The result is a growing **data integrity gap**: the widening divide between what Agentic AI systems are capable of delivering and what enterprise data can support with confidence today.

Closing this gap does not require a new definition of data integrity. It requires elevating it. At its core, data integrity has always meant data that is accurate, consistent, and rich in context—conditions that determine whether decisions can be trusted. **Agentic-Ready Data** is data that meets this standard of integrity at the point where AI systems begin to act autonomously. It reflects a shift from managing data to support analysis and recommendation, to sustaining data integrity continuously for decisions that execute in real time and at scale.

In this environment, data integrity is no longer a supporting discipline. It becomes an operational requirement. When data is trapped in silos, incomplete, outdated, inconsistent, or non-compliant, autonomous systems do not merely produce imperfect insights—they produce outcomes that cannot be trusted. Agentic-Ready Data establishes the conditions required for AI agents to reason, decide, and act with confidence.

This eBook outlines a strategic framework for data leaders preparing for Agentic AI. It defines six essential requirements for closing the data integrity gap and establishing Agentic-Ready Data—so autonomous systems can deliver measurable business outcomes while remaining aligned with organizational controls, risk tolerance, and regulatory expectations.

Why Agentic AI Requires a Higher Standard for Data Integrity

Many enterprises have invested in data modernization, and that work continues. New platforms, architectures, and practices have expanded access to data, improved quality in critical domains, and introduced stronger governance and monitoring. These efforts have enabled meaningful progress in analytics, machine learning, and generative AI use cases, and they remain an essential part of ongoing transformation.

Adoption of generative AI, in particular, has accelerated as it promises to improve individual productivity. These systems summarize information, generate content, and assist with analysis, but they are designed to support human decision-making. When results fall short, people can intervene, validate outputs, and apply judgment before action is taken.

Agentic AI introduces a fundamentally different model. These systems are designed to reason, prioritize, and take action autonomously across connected workflows. As AI moves from assisting people to acting on the organization's behalf, the tolerance for inaccurate, inconsistent, or poorly contextualized data drops sharply. Data integrity shifts from a supporting discipline to an operational requirement.

While modern data integrity capabilities can deliver higher levels of accuracy, consistency, and context, they are too often applied selectively. Integrity efforts tend to be concentrated in high-value domains, enforced at specific checkpoints, or reliant on manual processes and specialized expertise. This approach has been sufficient when AI outputs were reviewed by humans, but it does not scale to autonomous execution.

Cost becomes a limiting factor as expectations rise. Maintaining data integrity through manual intervention and scarce skills is expensive and difficult to sustain, particularly as data volumes grow and AI systems demand continuous confidence. Organizations are often forced to choose between expanding integrity coverage at high cost or limiting it to a narrow set of use cases—neither of which supports the scale Agentic AI requires.

Agentic AI raises the standard by requiring data integrity that is continuous, scalable, and economically viable. It exposes the limits of approaches that depend on human oversight and fragmented practices, and it challenges organizations to rethink how integrity is prioritized and sustained as AI systems begin to operate independently. Meeting this standard does not mean starting over, but it does require a shift in how data integrity is applied as part of everyday operations.

The Agentic AI Data Integrity Gap

As organizations move toward Agentic AI, many encounter a gap between the data they have and the data autonomous systems require. This gap is not the result of a single failure or missing capability. Instead, it reflects a set of persistent conditions that limit accuracy, context, trust, and scale—conditions that have long constrained enterprise data, but which become far more consequential when AI systems are expected to act independently.

Together, these conditions form the **Agentic AI Data Integrity Gap**. They often coexist and reinforce one another, making it difficult for organizations to deliver the level of confidence autonomous decisioning demands.

Trapped

Hard to access & find data across hybrid IT landscape

Inconsistent

Multiple versions of data & formats that block the truth

Incomplete

Lack of attributes and context creates blind spots

Non-compliant

No traceability, unverified, uncontrolled autonomy

Outdated

Backwards-looking, periodic

Expensive

Held back by specialized skills & manual processes

Trapped

Critical data is distributed across hybrid and multi-generational IT environments. While this distribution is often intentional—driven by performance, cost, or application needs—many organizations lack a clear, shared understanding of where data resides, how it is structured, and how it can be accessed. When data cannot be easily discovered, understood, or connected across environments, it becomes effectively trapped for AI systems that rely on timely and reliable access.

Incomplete

Many datasets lack the attributes and contextual signals required for accurate decisioning. Internal data alone often provides only a partial view, leaving critical gaps related to location, risk, demand, behavior, or real-world conditions. Without enrichment from authoritative third-party sources, AI systems operate with blind spots that limit their ability to reason effectively—particularly when decisions must account for external factors beyond what internal systems capture.

Outdated

Data that is refreshed periodically rather than continuously forces AI systems to operate on backward-looking information. In dynamic environments, even small delays can lead to decisions that are misaligned with current conditions. As AI systems take on more autonomous roles, reliance on outdated data quickly erodes trust in their outcomes.

Inconsistent

Data quality issues remain widespread across enterprise environments. Data may be inaccurate, incomplete, non-standardized, duplicated, or misaligned with how it is used. These quality problems manifest differently across systems and workflows, making it difficult to rely on data consistently as it moves through the organization. For Agentic AI, poor data quality introduces ambiguity and error that autonomous systems cannot correct through interpretation or escalation.

Non-compliant

As AI systems take on more autonomy, the absence of consistent governance becomes a critical risk. In many organizations, data is not governed uniformly across environments, use cases, or stages of the data lifecycle. Without clear policies, traceability, and verification in practice, organizations struggle to explain how AI-driven decisions were made or to demonstrate alignment with internal controls and external regulations. When data is not governed, autonomous systems operate without the guardrails trust and accountability require.

Expensive

Maintaining data integrity has historically depended on manual processes and specialized skills. While this approach can work for select use cases, it is costly and difficult to sustain at scale. As AI systems require continuous confidence rather than point-in-time validation, reliance on human intervention becomes a significant barrier to broader adoption. Individually, each of these conditions constrains AI outcomes. Collectively, they prevent organizations from moving beyond experimentation to autonomous execution. Closing the Agentic AI Data Integrity Gap requires addressing all six—not as isolated issues, but as interdependent challenges that define the readiness of enterprise data for Agentic AI.

The Strategic Mandate: Agentic-Ready Data

Agentic AI elevates the expectations organizations must have of their data. As AI systems move from generating insights to making decisions and taking action autonomously, data integrity is no longer a supporting capability—it becomes a strategic mandate for data leaders responsible for trust, performance, and risk.

Agentic-Ready Data defines the standard enterprise data must meet in this environment. It is data that consistently demonstrates accuracy, consistency, and context at the point where decisions are executed, not merely analyzed. It is enriched and sustained at a trusted level of quality, governed throughout its lifecycle, and available in the form and timeframe autonomous systems require to act with confidence.

Organizations will approach this mandate from different starting points. All are on a journey toward stronger data integrity, and most have undertaken initiatives across one or more of its dimensions. These efforts are necessary and valuable. Agentic AI does not invalidate them—it raises the standard they must collectively support. The question is no longer whether integrity disciplines exist, but whether they are sufficient to meet the demands of autonomous decisioning.

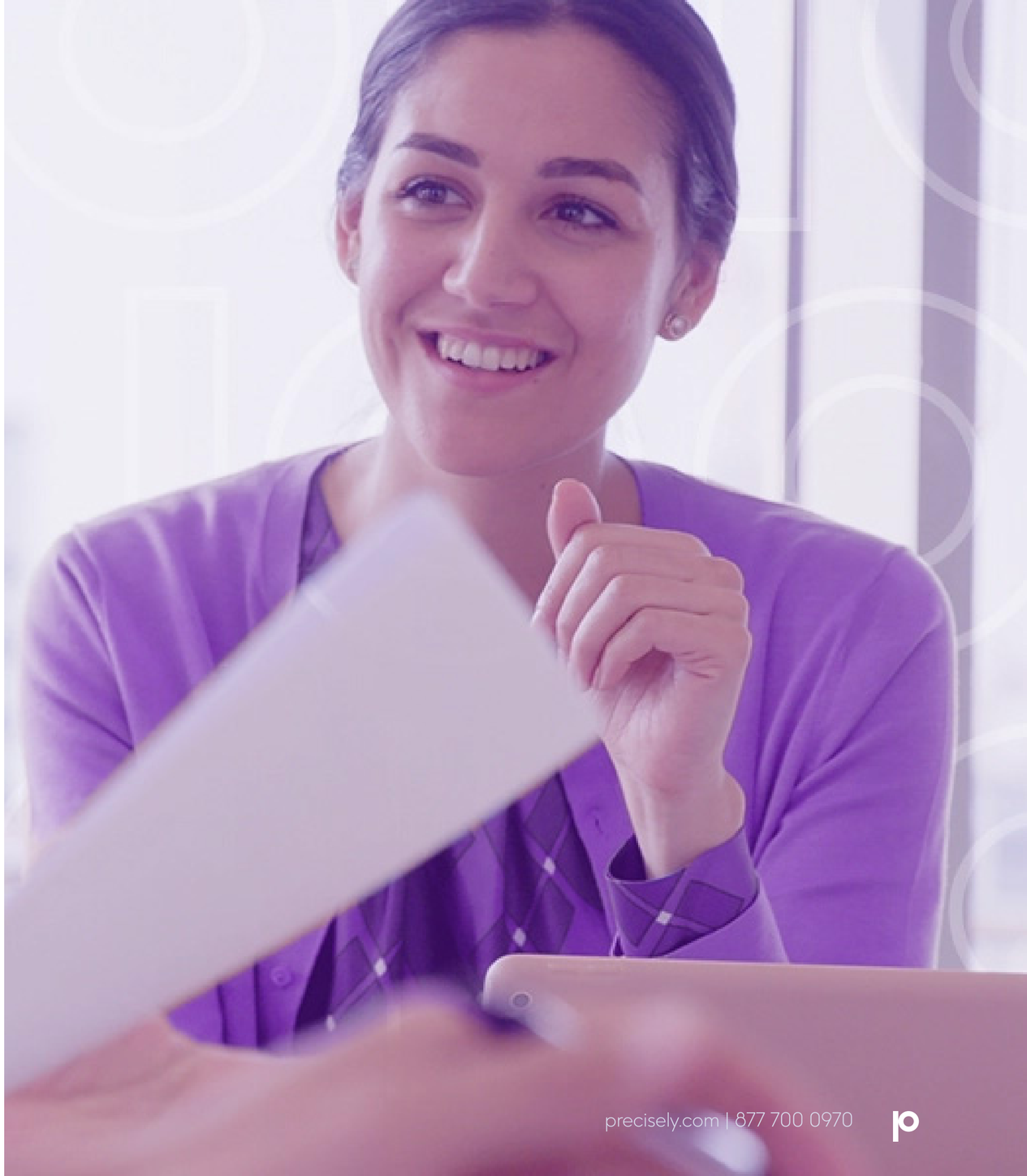
In an Agentic AI environment, data integrity must hold wherever decisions are made and actions are taken. When data remains trapped, incomplete, outdated, inconsistent, non-compliant, or expensive to manage, those conditions are inherited directly by autonomous systems. Gaps that once slowed analysis or required human intervention now shape outcomes in real time.

Agentic-Ready Data establishes a shared standard for aligning data integrity efforts to this new reality. It provides a clear lens for assessing readiness and prioritizing action, regardless of where data lives or how it is used across the enterprise. The following section outlines six essential requirements that define this standard and provide a clear path for closing the Agentic AI Data Integrity Gap.

Defining the Requirements for Agentic-Ready Data

Agentic-Ready Data is achieved when a set of foundational requirements are met consistently wherever autonomous decisions occur. Organizations may address some of these requirements through existing data integrity initiatives today, but Agentic AI elevates the expectation that all must be satisfied together to support autonomy at scale.

The following six requirements define what data leaders must ensure to close the Agentic AI Data Integrity Gap and establish Agentic-Ready Data.



1. Unify your data

Agentic AI requires a unified view of data across the enterprise. This does not mean physically consolidating all data into a single platform. It means connecting data across the IT landscape through a **common data catalog** so it can be discovered, classified, and understood, and integrating data where required to support decisioning and execution. Without this level of visibility and connection, data remains fragmented and difficult for autonomous systems to use with confidence.

2. Gain an enrichment edge

Internal data alone rarely provides sufficient context for autonomous decisioning. **Agentic-Ready Data is enriched** with authoritative third-party and contextual information related to factors like location or demand to fill critical gaps and reflect real-world conditions. Enrichment reduces blind spots, strengthens decision accuracy, and allows AI systems to reason beyond what is captured in operational systems.

3. Operate in the new

Autonomous systems depend on data that reflects current conditions. Agentic-Ready Data is continuously refreshed and maintained in a known state, so decisions are based on what is happening now—not what was true hours or days ago. When AI operates on outdated information, outcomes quickly drift out of alignment with business and environmental realities.

4. Shape data for purpose

Different decisions require different standards of **data quality**. Agentic-Ready Data is fit for its intended use, exhibiting the characteristics required for reliable execution—such as completeness, validity, and consistency—where they matter most. In autonomous environments, data quality issues cannot be filtered by human judgment because they directly influence outcomes.

5. Elevate governance

As AI systems take on greater autonomy, governance must provide clear guardrails for how data is used. **Agentic-Ready Data must be governed** in practice, giving the business confidence in where "good data" lives and ensuring decisions are traceable, verifiable, and aligned with internal policies and evolving regulatory requirements—including emerging AI-specific regulations. Without governance, trust in autonomous outcomes cannot be sustained.

6. Lower cost structure

Agentic AI raises expectations for data integrity while simultaneously challenging its economics. Approaches that rely on manual processes and specialized skills are costly and difficult to scale. Agentic-Ready Data requires a lower cost structure—one that leverages AI to automate data integrity tasks and reduce dependence on scarce expertise, and that can be delivered through an **interoperable suite of capabilities** that manage data across hybrid data environments.

“AI is everywhere, but real ROI depends on the data behind it. Agentic-Ready Data is how enterprises move from experimentation to execution with trust, governance, and confidence.”

Josh Rogers

Precisely CEO

How Precisely Helps Enterprises Close the Agentic AI Data Integrity Gap

Data-leading executives choose Precisely because we help them maximize the context and usage of their data while minimizing cost and effort—outcomes required to operationalize data integrity for Agentic AI. Through a combination of enterprise-grade software, data, and **data strategy consulting**, Precisely enables organizations to sustain the accuracy, consistency, and context of their data across complex, hybrid environments.

At the core of this approach is **Precisely's Data Integrity Suite**, where data integration, data quality, data governance, data enrichment, and spatial analytics operate as interoperable services built on a common Data Integrity Foundation. This foundation provides the shared capabilities that connect services, enable automation, and allow data integrity to scale alongside Agentic AI—without forcing a one-size-fits-all approach to data architecture.

Maximize Context

Agentic AI depends on data that is trusted and well understood. Precisely helps organizations connect and integrate data across hybrid and legacy environments—including SAP, IBM, and mainframe systems—so it can be made usable in modern platforms when required.

A common data catalog provides visibility into where data lives and how it can be used, while enrichment with authoritative third-party and location-based data adds critical real-world context. Together with sustained data quality, these capabilities give Agentic AI the complete, reliable inputs it needs to reason accurately and without blind spots.

Maximize usage

For Agentic AI to deliver value, high-quality, governed data must be usable wherever decisions are made. The Data Integrity Suite's execution model that enables organizations to define data integrity logic once and run processes where data lives—on premises, in the cloud, or across hybrid landscapes—together with an extensive set of APIs allows organizations to deliver the right data, in the right context, at the right time.

Built-in data governance provides confidence that AI systems can operate responsibly at scale across ecosystems, models, and workflows.

Minimize effort

As expectations for data integrity rise, organizations must also address the cost of sustaining it. The Precisely Data Integrity Suite reduces reliance on manual processes and specialized skills by providing a business-friendly user experience and built-in automation. AI-driven capabilities and AI agents elevate team performance through recommendations and guided best practices.

Beyond reducing manual effort, sustaining data integrity at scale also depends on architectural and cost efficiency. The Data Integrity Suite's services for data quality management, governance, integration, and enrichment are designed to be interoperable. These modular services share a common foundation, enabling reuse across initiatives to reduce duplication of effort, accelerate time to value, and support scale without added complexity. Organizations can start where their needs are today and grow at their own pace as Agentic AI adoption expands.

Moving Forward with Confidence

When enterprises close the Agentic AI Data Integrity Gap, they create the conditions for AI to deliver real operational value. Decisions become more accurate. Processes become more efficient. Teams gain the ability to adapt with confidence as conditions change. These outcomes are not driven by experimentation alone, but by data that is integrated, governed, enriched, and sustained at a trusted quality standard.

Despite significant investment in AI, many organizations still struggle to translate effort into results. The gap is not a lack of ambition or innovation. It is a lack of data integrity that meets the standard autonomous decisioning requires at scale. Closing this gap has become a priority for leaders responsible for performance, resilience, and risk.

Progress does not require solving everything at once. It begins by focusing on the data that matters most and aligning it to the standard required for AI systems that act rather than assist. Each step builds momentum and prepares the organization for more advanced autonomy.

Precisely partners with thousands of enterprises on this journey. With deep expertise in data integrity and multi-generational IT environments, Precisely helps organizations meet the data integrity standard Agentic AI demands and move beyond AI potential into sustained business impact.

Let's talk about your path to Agentic-Ready Data

Get in touch to see how Precisely can help you close the Agentic-Ready Data Gap.
precisely.com/contact

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About Precisely

As a global leader in data integrity, Precisely ensures that your data is accurate, consistent, and contextual. Our portfolio, including the Precisely Data Integrity Suite, helps integrate your data, improve data quality, govern data usage, geocode and analyze location data, and enrich it with complementary datasets for confident business decisions. Over 12,000 organizations in more than 100 countries, including 95 of the Fortune 100, trust Precisely software, data, and strategy services to power AI, automation, and analytics initiatives. Learn more at www.precisely.com.

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