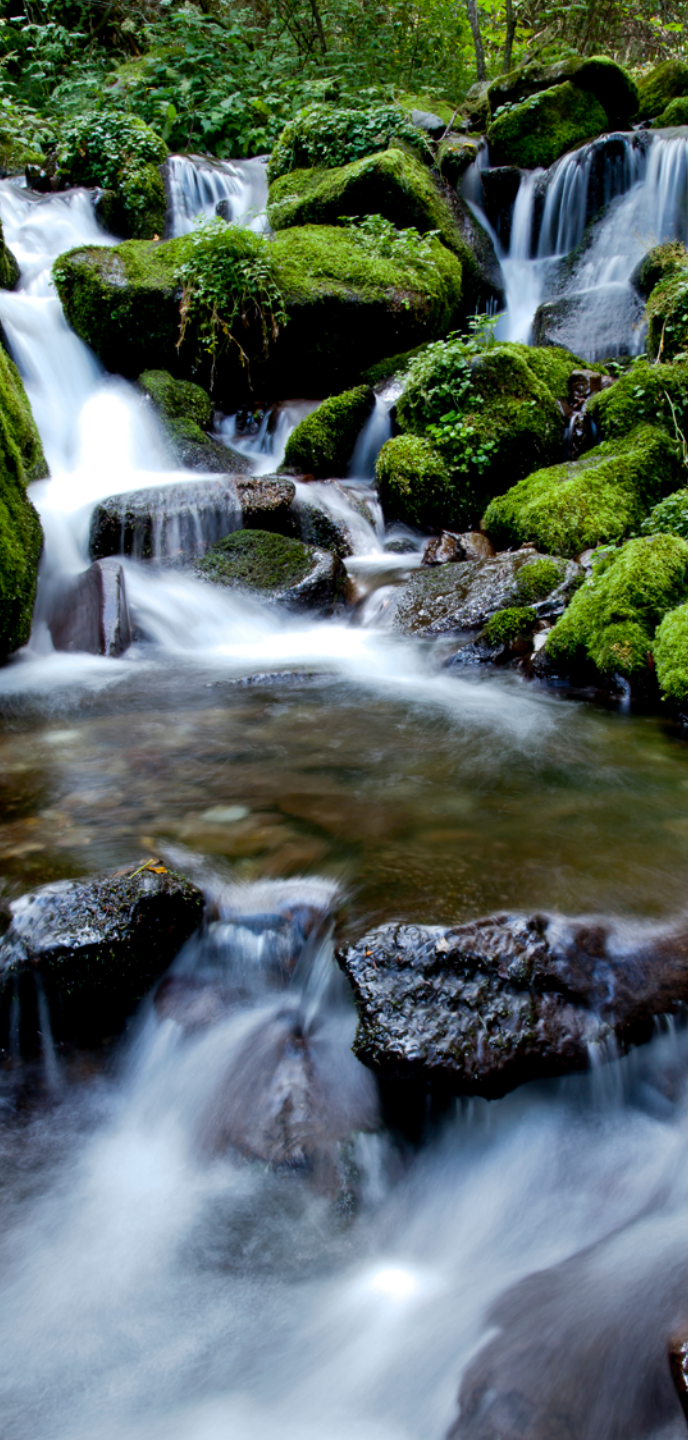
Deloitte.

A clear path to evergreen value

Modernize enterprise data more effectively with data observability from Deloitte

April 2024



Insights at the speed of markets. Agility and collaboration at enterprise scale. Innovation at the moment of inspiration.

Used to be, that vision seemed like nothing but a mirage on the horizon: perpetually just beyond reach, even for the most market-leading, forward-thinking enterprises. Now, thanks to rapid advances in artificial intelligence (AI) and machine learning (ML), companies are finding the vision is no longer an illusion: A real oasis of evergreen differentiation and value is now within reach.

Data is the renewable resource that feeds that oasis. It's bubbling up everywhere, in greater volume than ever before, enough to create oceans of new opportunity. Unfortunately, most organizations are struggling to channel that potential due to an aging, overtaxed patchwork of data systems—some on-premises, some in cloud, some trapped within individual applications. Those isolated reservoirs and disconnected pipelines take monumental human effort to maintain—let alone modernize and connect in ways that nurture sustained growth.

In an effort to evaporate these challenges, many organizations are turning to cloud-enabled enterprise data platforms. These platforms offer extensive scalability and dynamic resource elasticity, powerful cloud analytics capabilities, and the ability to aggregate data from multiple cloud environments, on-premises sources and third-party applications—making it all accessible from a single inclusive view. Within these platforms, pricing is more transparent and based on usage, and enables enterprises to shift data management technology investments from capital to operational expenses.

Implemented well, cloud enterprise data platforms can help drive both efficiency and new value from data operations. But as organizations dive in, many find themselves awash in unexpected complexity, without clear visibility into the new issues and costs that arise. That's where data observability from Deloitte can help.

Promises—and pitfalls—on the journey to data modernization

In order to understand the role and value of data observability, it's important to first recognize the benefits and pitfalls that often lie along two possible paths to the implementation and adoption of a cloud enterprise data platform.

Path #1: **Cloud first**

Many enterprises choose to "lift and shift" their data from existing legacy infrastructure, with a plan to optimize later. This can be a smart approach from an initial cost perspective, enabling a cost takeout as old infrastructure and software is rapidly retired. It can also help accelerate access to new cloud analytics and automation capabilities.

But too often, **existing inefficiencies get carried over** in the process—and insufficient migration planning creates new issues as well due to data and/or schema drift. This can lead to trust and adoption challenges along with inefficient, uncontrolled workloads (and future costs) as data teams work to track down and address both old and new problems. And if enterprisewide governance standards aren't established before the move, some organizations find that **total cost of ownership can rise**—sometimes rapidly—due to an increase in usage.

Path #2: **Optimize first**

Some organizations begin by optimizing both underlying data models and extract / transform / load processes prior to moving to cloud. This approach can help reduce the risk of unexpected disruptions while enabling the data team to prepare for new demands and increased utilization from business users. And by identifying and addressing integration issues prior to making the move, organizations can improve data reliability and reduce risk—both of which can accelerate adoption and trust.

However, these benefits often come at **higher costs in the near term** (due to the ongoing need for existing infrastructure maintenance) as well as **delayed enterprisewide access** to the transformative capabilities that a cloud enterprise data platform can provide.

Common hurdles on both paths

- **A lack of end-to-end visibility** across data sources, pipelines and end-user activities stymies optimization efforts due to the manual work needed to identify and address drift issues.
- **Turnover and a lack of documentation** in the data team, combined with a tight talent market for data scientists and engineers, results in delayed time to value as organizations reverse-engineer pipelines and dependencies that were hard coded into legacy systems.
- When **legacy mindsets** regarding compute and storage resources are carried over, the cost savings made possible by elastic resource allocation in the new cloud platform are missed.
- **Shadow IT**—whether due to a lack of trust and adoption that result from a lift-and-shift approach, or due to impatience among end users while the data team works on an optimize-first approach—continues to proliferate, creating new silos.

Seeing your way to value

What's needed are new ways of cultivating evergreen value from cloud-enabled enterprise data platforms—and across your whole data ecosystem—through *data observability*. It's about bringing together capabilities, tools and processes that enable visibility into the state of your data infrastructure, the state of the pipelines flowing through that infrastructure from sources to consumers, and the state of the data itself that's flowing through those pipelines.

Data observability can help ...

- **Remediate blind spots:** Identify and resolve emerging problems across the end-to-end data supply chain through automated alerts, recommendations and actions
- **Identify platform opportunities:** Enable teams to auto-scale compute, network and storage resources to support variable demand as data is ingested, processed and used
- **Highlight expensive tasks:** Provide detailed visibility into the usage activities that are driving costs
- **Reveal patterns:** Analyze data utilization, anomalies and trends
- **Expose risks:** Enable identification and mitigation of risks that arise from data and schema drifts, regulatory changes, and sharing of data with third parties
- **Amplify usability:** Provide transparency into data quality and data reliability across your enterprise

As a result, organizations can achieve ...

- Faster value realization from data investments
- Cost optimization of data capabilities and products
- Improved performance, quality and efficiency across the full data life cycle
- Better optimization and integration of enterprise data architecture pre- and post-migration to the modernized cloud platform
- Improved trust and adoption of its enterprise data platform
- Faster, better insights that support innovation, agility and collaboration
- Automations that significantly reduce manual work
- New opportunities to monetize data and effectively utilize third-party data resources through cloud marketplaces

Data observability, defined

Deloitte defines data observability as a technology-enabled, people-powered discipline that helps you see, understand and optimize your end-to-end data supply chain in ways that foster transparency and trust, reduce risk, improve efficiency and budget management, and cultivate data as an investible asset to drive evergreen value.

A more resilient, efficient and effective data ecosystem

Data observability isn't just about implementing a new platform or tool. It's about leveraging the right combination of technology, processes, governance and talent—in the right order—to get more out of data investments and nurture evergreen business value. It's about cultivating a more resilient, efficient and effective data ecosystem.

That's what data observability with Deloitte can deliver.

We've helped businesses across industries accelerate the value of their data, analytics and AI investments while reducing and effectively managing ongoing costs. We do this by leveraging our strategic and technical talent, domain and industry know-how, and proven assets and technologies.

Not only that, but our experienced and dedicated AI, DataOps, machine learning and intelligent automation teams can help leverage and transform your data to drive tangible business value through new insights, new innovation and new automations.

Our approach to data observability is rooted in three guiding principles:

- ***What gets seen gets managed.***
- ***Don't just observe. Optimize.***
- ***Transform visibility into value.***

On the following pages, we explore how these principles can rapidly benefit your business.

What gets seen gets managed.

In the rush to modernize data operations via cloud migration, organizations too often wind up perpetuating—and even expanding—the inefficiencies and related risks, costs and trust issues that existed in their legacy data systems and processes. The result? Slow adoption, lack of trust, unexpected / unanticipated cost overruns and missed opportunities.

That's where the discipline and technologies of data observability become essential.

It starts with identifying, implementing and managing a data observability platform that helps you:

- **Diagnose and address pipeline issues** affecting data transformation, events and applications
- **Proactively avoid disruptions and mitigate risks** identified through an understanding of data trends and historical issues
- **Improve reliability** by identifying schema and/or data drift that impacts quality and reconciliation
- **Provide real-time insights** of interest to data engineers, data scientists, administrators and platform engineers

But data observability is more than a tech platform play. It's a discipline rooted in transparency and optimization—so that people and process benefits can be engineered into your end-to-end data ecosystem.

We help you seize the potential of data observability by bringing experienced teams that understand not just the technologies involved, but also the processes, data science, automations, engineering and integrations needed to effectively and efficiently put it into practice.

Don’t just observe. Optimize.

Data observability reveals operational challenges and problems. This information becomes critical to illuminate fixes and improvements that should be applied across your data ecosystem. As you and other leaders better understand how data moves into and through your enterprise data platform, data operations teams can be pointed at improvements that have a direct impact on your business. Data observability becomes a critical enabler for managing costs, infusing efficiency across your data ecosystem and driving evergreen value to your business through data.

Deloitte’s globally integrated network of industry, domain and function specialists understand how to connect data observability best practices and capabilities to the unique conditions and needs of your business. We bring leading capabilities in operational and talent transformation to help drive rapid change, adoption and ongoing improvements. Our strengths in strategy, analytics and cyber risk consulting can provide critical insights into the regulatory, competitive and marketplace environments in which you operate.

As a result, we can help you:

- **Architect, implement and run a modernized data infrastructure** by identifying the best use cases and integrations for cloud platforms, remaining on-premises systems, and/or other best-of-breed cloud tools and platforms
- **Establish a value-focused operating model** that balances technical delivery with business priorities
- **Optimize compute resources** to address capacity, data processing, cost optimization and cloud financial management (FinOps) governance
- **Strengthen agility and collaboration**—both within the enterprise and with external partners and vendors

Transform visibility into value.

Data should be viewed as money—an investible asset—and managed accordingly. Deloitte helps embed this mindset into your day-to-day data operations by bringing a financial operations lens to what you see. Working alongside you as a trusted collaborator, we help you transform data observability from an activity of your organization into an integral driver of business value.

We understand how to harness the potential in your data for use cases that help increase sales and revenues, reduce operational inefficiencies, improve customer and partner engagement and productivity, and elevate customer experiences.

We can help you:

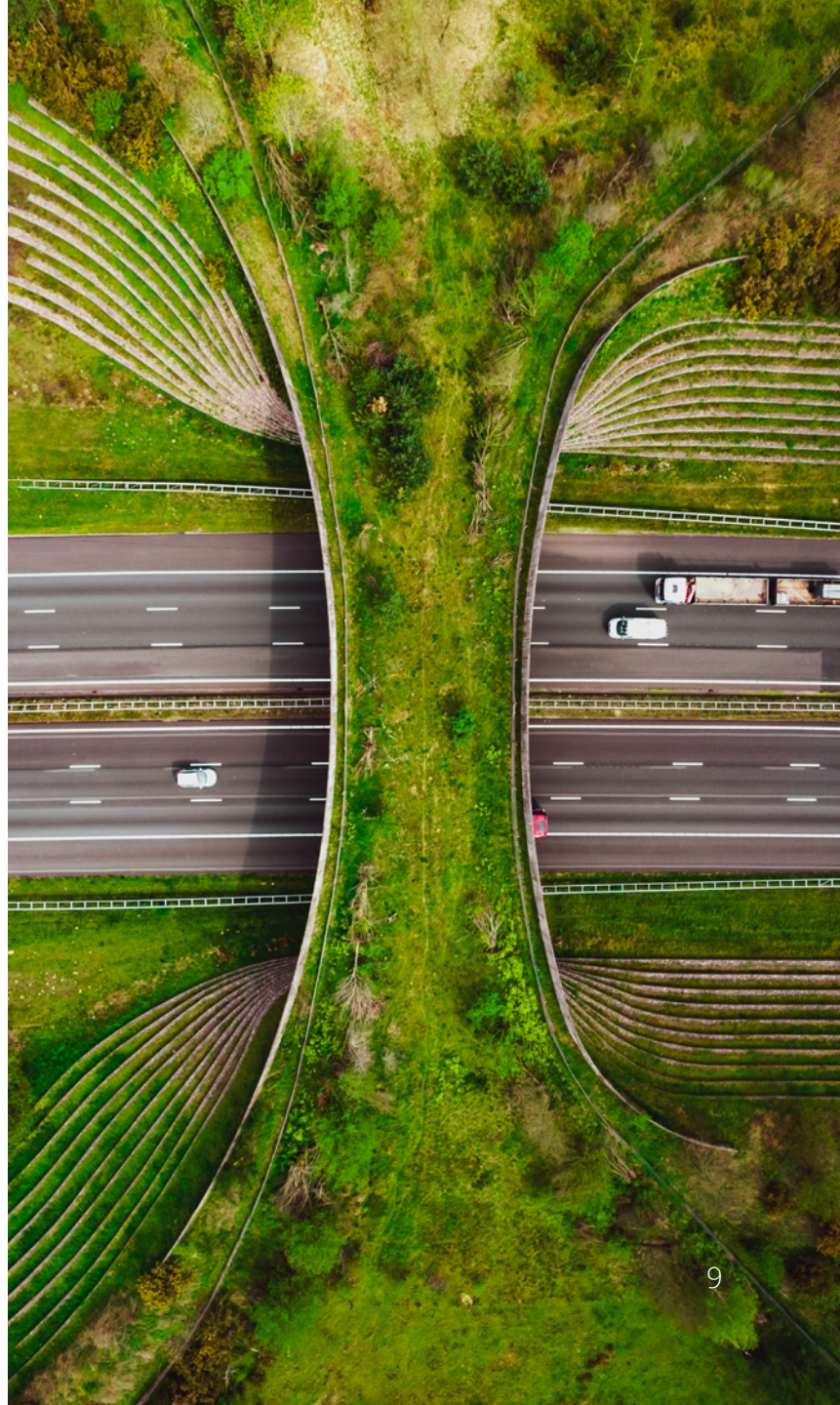
- **Drive rapid, enterprisewide adoption** through the delivery of high-quality, on-time data, and the rapid identification of issues that threaten data trust
- **Manage data as an investible asset** at the center of your strategic objectives and competitive advantage
- **Evolve analytics and AI capabilities** that help fuel competitive advantage across your enterprise and within your key business functions
- **Realize the value** of your data, analytics and AI assets through transparent, collaborative governance approaches that connect technological capabilities with business results

Cultivate a thriving data ecosystem

The ability to generate sustainable enterprise value depends on an evergreen, ever-smart ecosystem of AI- and ML-driven hyperautomation fed by the freshest of data, moment by moment. That, in turn, demands a self-sustaining ecosystem of ever-ready, ever-fresh data.

Migrating to a modernized, cloud-enabled enterprise data platform can provide fertile ground on which to grow—enabling faster insights, improved collaboration, and more efficient and effective data operations. That ultimately helps your organization seed innovation, reveal opportunities, and grow trust, confidence and preference. But without careful cultivation, even the most fertile ground can rapidly turn into a bog of challenges that slow or even block progress on the path to value.

Data observability from Deloitte can help provide comprehensive visibility across the end-to-end data life cycle. The result? Your cloud-based data lake can become a renewable oasis for evergreen growth.



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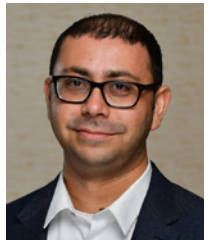
Get in touch



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