

SOLUTION PROFILE

Data Reliability Engineering: The Key to Reliable, Cost-Optimized, Trustworthy and Transparent Data — Anytime and Anywhere

Build an Automated, Optimized, Self-Healing Data Ecosystem with Hitachi Data Reliability Engineering Services

In today's data-driven landscape, organizations heavily rely on accurate and high-quality data to make informed business decisions. Experts predict that a staggering 2.5 quintillion bytes of data are generated daily, with this number projected to double every two years.¹

Traditional data observability and quality management approaches often focus on periodic checks and audits, providing only a snapshot of data quality at specific intervals. Without real-time access to data pipelines and systems, chief data officers and their data teams can't react promptly to issues as they occur. The gap between data observability and quality inhibit organizations' ability to react promptly to emerging issues compromising the accuracy and timeliness of data-driven decision-making.

Data and analytics leaders must take pragmatic and targeted actions to improve their enterprise data quality if they want to accelerate their organizations' digital transformation", says Gartner, whose recent research estimates that poor data quality costs organizations an annual average \$12.9 million.

Modern organizations require a modern approach to data observability and quality management. With data reliability engineering organizations can accelerate your path to self-healing data ecosystem and data democratization.

Demystifying Data Management with an Emphasis on Data Quality, Trust and Reliability

Without data reliability engineering resources to support mission-critical needs, data stewards can't detect and mitigate data anomalies that lead to suboptimal decision-making, operational inefficiencies, and compromised customer experiences.

How Important Is Data Reliability?

Organizations today must harness the immense power of data to enhance customer service, operational effectiveness, and regulatory compliance. However, without effective data management, costly issues arise, causing organizations to lose an average of \$12.9 million annually.² Surprisingly, more than half of these organizations are unaware of the true cost of unreliable data and more than half aren't even aware of what unreliable data is costing them.

Reliable, timely, and accessible data is essential for organizations. Without it, support chatbots, inventory management systems, and financial planning tools may falter, resulting in lost revenue, diminished business credibility, and a negative customer experience. Unreliable data pipelines can disrupt downstream service computations and machine learning models. Moreover, delays in resolving data issues can hinder enterprise performance and prevent timely data-driven insights from reaching decision-makers.

Transforming missed opportunities into realized potential is where Hitachi excels. Our proactive maintenance of data pipelines and observability services address data quality and origin issues. With Hitachi Data Reliability Engineering Services, organizations gain an automated and optimized data ecosystem that enhances business efficiency, accelerates operational excellence, bolsters data resiliency, and scales data reliability. This fosters increased data trust and transparency, enabling data teams to conquer modern data management challenges and ensure the consistent reliability, security, and availability of data when it matters most.

¹ Charlotte Johnson, "How much data is produced every day 2021?" TheTechNext, 2021.

² Manasi Sakpal, "How to Improve Your Data Quality," Gartner, July 14, 2021

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Unfortunately, not all organizations have a dedicated data engineering function to manage mission-critical processes and applications. According to 451 Research's Data-Driven Practices 2022 Survey³, only a slight majority (65.4%) of respondents report their organization had a dedicated data engineering team. That number drops to 46.8% for organizations that report only "some" or "few" of their strategic decisions are based on data.

It's clear that there is now a greater focus on the maintenance and consistency of supporting data systems and data pipelines, shifting data quality responsibilities upstream to emergent technical roles such as the data engineering function.

Introducing Hitachi Data Reliability Engineering Services, an end-to-end suite of professional services, methodology, tools, and frameworks that helps organizations unlock the full potential of their enterprise data. As an integral part of the Hitachi Application Reliability Center (HARC), Hitachi Data Reliability Engineering Services helps modern data teams deliver high-quality, consistent, and trustworthy data. Essentially, our data reliability engineering services enable organizations to automate and scale data operations by balancing speed, data reliability, and data integrity.

Automate and Optimized Data Ecosystem

Hitachi Data Reliability Engineering Services empowers chief data officers and data engineers in their mission to deliver enterprise-ready data for enhanced productivity and efficiency. We recognize their challenges, and our services serve as a valuable resource to augment their efforts and alleviate the complexities associated with their responsibilities.

Hitachi Data Reliability Engineering is a comprehensive suite of services to optimize data reliability. Our services include:

- 1. Data Reliability Advisory Services**
Gain end-to-end visibility into your current state through a thorough reliability, compliance, and monitorability assessment.
- 2. Data Reliability Design Services**
Collaborate with us to create a modern data reliability engineering architecture that combines DataOps and FinOps practices and for robust and cost effective a self-healing data ecosystem
- 3. Data Reliability Build Services**
Benefit from our built-in DataOps methodology and practice, data quality enhancements, and governance measures to elevate your business outcomes.
- 4. Data Reliability Run Services**
Access top Data Reliability Engineering talent and outcomes without worrying about execution to maintain a reliable data state and mitigate data downtime risk.

These services ensure agility and efficiency by delivering end-to-end data quality and data pipeline resilience throughout the entire data life cycle. With Hitachi Vantara's unique R3 methodology, you can:

- **Reveal** early warning signs of data issues closer to the source (shift-left approach), minimizing downstream disruptions.
- **Resolve** root causes and implement permanent solutions to issues.
- **Regulate** the review and update data while automating preventive maintenance based on lessons learned.

Hitachi Data Reliability Engineering Services automates and scales data orchestration to deliver a seamless self-serve experience. Our goal is to help you optimize data ecosystems, enhance data quality, minimize downtime, ensure data observability and availability, and fortify security and compliance, to ultimately improve decision-making. We employ a proactive shift-left approach, continuously monitoring data from creation to storage to usage, right from its earliest stages. With Hitachi Data Reliability Engineering Services, customers can:

- **Boost** data resiliency, scale data reliability and proactively manage costs.
- **Increase** data trust and transparency.
- **Deliver** an automated and optimized data ecosystem.

³clients.451research.com/reportaction/200576/Toc

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Improve Operational Performance and Reduce Costs with Effective Data Management

Data reliability is increasingly becoming a paramount concern for organizations. The rise of self-service models for data access and utilization has brought forth the challenge of ensuring the quality of the underlying data, ranking as the second most reported hurdle.

According to a recent survey conducted by 451 Research⁴, 32.6% of respondents cited poor-quality data as a hindrance to the delivery and adoption of self-service models within their organizations. The message is crystal clear: modern organizations require an automated, self-service approach to data reliability. Such an approach enables scalability and maximizes the value of their data, guaranteeing its reliability, security, and accessibility at all times.

⁴ clients.451research.com/reportaction/200576/Toc

Foster a Data-Driven Approach and Drive Your Business Forward with Self-Serve Data Management

As data volume, velocity, and complexity soar, the significance of data reliability becomes increasingly exponential. The decisions driven by this data hold utmost importance. It is crucial to stay ahead of the curve and proactively address data reliability at its core. Discover how you can kickstart your journey today. [Learn how to get started.](#)



ABOUT HITACHI VANTARA

Hitachi Vantara, a wholly-owned subsidiary of Hitachi Ltd., delivers the intelligent data platforms, infrastructure systems, and digital expertise that supports more than 80% of the Fortune 100. To learn how Hitachi Vantara turns businesses from data-rich to data-driven through agile digital processes, products, and experiences, visit hitachivantara.com.



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