

Solution Brief

AI/ML-Based Data Observability and Root Cause Analysis



Data observability including data quality, usage and traceability remains a significant blind spot for many organizations. Incomplete or inaccurate data can lead to a domino effect of negative consequences, impacting decision-making, hindering AI/ML projects, and exposing organizations to security risks.

Three key challenges necessitate a data-driven approach to data observability and root cause analysis:

- **The Data Visibility Gap:** Organizations struggle to understand how data flows through their systems, hindering their ability to ensure data integrity and make data-driven decisions.
- **The Root Cause Conundrum:** Manual investigations are often slow and inefficient, hindering timely efforts to fix the root cause of the problems and prevent them from recurring.
- **Data Governance Bottlenecks:** Organizations often lack tools and processes to identify data owners and ensure everyone understands their roles and responsibilities, leading to confusion and inconsistencies in data management.

72% of IT professionals manage data health using multiple monitoring tools (2-13 on average). This fragmented approach hinders visibility and makes it difficult to get a holistic view of data health (IDC).

In an age of ever-growing data volumes and complex data pipelines, is simply throwing more resources at the problem the answer? Shouldn't organizations be aiming for a more holistic approach - one that combines data observability with automated risk identification and clear ownership for stakeholders?

This is where Zubin steps in.

Zubin is Data Dynamics' AI-powered self-service data management software, bringing a fresh approach to privacy, security, compliance, governance and optimization in the world of AI-led workloads. It empowers enterprises by enabling users across all levels - from C-suite to data owners - to discover, define, act, transform, and audit data through a user-friendly interface. Zubin brings correlation, consistency and standardization across your organization by delivering granular insights, deriving recommended workflows, and automating actions using personalized policies and RBAC-driven processes. This transformation fosters a culture of data ownership, where everyone becomes a data champion, and the organization fulfills its responsibility as a data custodian.

Zubin's Data Observability and Root Cause Analysis functionality leverages AI and machine learning to tackle data quality, governance, and security challenges. It offers a centralized solution to gain control of your organization's data, ensuring data integrity and enabling informed decision-making. With Zubin, you can identify and address data quality issues proactively, automate data governance processes, and mitigate data security risks.

Enterprise-Wide Data Visibility and Actionability

- **CISO-Level Dashboards**

Empower CISOs with a single pane of glass view into data risk posture and usage across the entire organization. Real-time data streams and interactive dashboards with drill-down capabilities provide actionable intelligence for informed decision-making.

- **Team & Data Owner Reporting**

Gain granular insights into data risk and usage trends by teams and individual data owners. These reports empower data owners to take ownership and make informed actions related to data management and governance within their areas of responsibility.

- **Personalized Data Policy Creation**

Create personalized data workflows based on your existing corporate governance documents and compliance policies. Zubin lets you orchestrate automated data workflows, ensuring data handling aligns with your specific requirements. This reduces human error and streamlines data governance processes.

Advanced Data Discovery and Classification

- **Metadata Analytics**

Uncover valuable insights hidden within your data through comprehensive metadata discovery. Zubin analyzes metadata to optimize data lifecycle management and usage patterns. This enables better data retention practices and facilitates timely data disposal when necessary.

- **Content Analytics with AI/ML & NLP**

Zubin's Data Science Engine acts as your intelligent analyst. It utilizes AI, machine learning, and Natural Language Processing (NLP) to identify and classify sensitive business data and PII. This empowers you to prioritize data protection efforts and ensure regulatory compliance.

- **Automated Classification & Tagging**

Build a comprehensive data inventory with automated classification and tagging. Zubin leverages advanced content scanning and metadata analysis to automatically categorize your data. This reduces manual effort and ensures consistency in data classification.

- **Statistical Sampling**

Optimize resource utilization for data analysis with Zubin's advanced sampling techniques. Zubin employs sophisticated methodologies to select representative data subsets, enabling efficient and cost-effective analysis.



[Click here for a demo](#)

Automated Risk Identification and Remediation

- **Risk Exposure Insights**
Proactively identify potential data privacy risks with multi-level logical expressions and operators. Zubin empowers you to anticipate and address data security issues before they escalate.
- **Data Containment and Isolation**
Mitigate risk exposure by isolating high-risk data in secure storage locations. Zubin identifies sensitive data and automatically quarantines it, enhancing overall data security posture.
- **Policy-Based Access Control**
Enforce granular access control through policy-based management. Zubin manages file permissions and identifies open shares, ensuring data confidentiality and preventing unauthorized access.

Data Lifecycle Management

- **Retention Compliance**
Ensure data retention compliance with automated data discovery, classification, and tagging. Zubin helps you identify data nearing its expiration based on retention policies, enabling timely action to avoid data breaches or regulatory violations.
- **Data Archiving and Retrieval**
Preserve archived data for long-term storage in a platform-agnostic object format. This ensures data integrity and facilitates efficient retrieval for legal discovery or compliance audits. Zubin also enforces data immutability for archived data, preventing unauthorized modifications.
- **Data Minimization**
Implement data minimization practices to optimize storage utilization and enhance data security. Zubin leverages policy-based deduplication to identify and remove redundant data copies. Additionally, it utilizes data classification and tagging to define data minimization rules for automated data deletion based on retention policies.

What's in it for you?

Gain Enterprise-Wide Visibility

Centralized data observability platforms can improve proactive data quality issue identification by 30%. Zubin's centralized dashboards provide CISOs with a single pane of view into data risk and usage across your entire organization. Interactive dashboards with drill-down capabilities empower informed decision-making based on real-time data streams.

Empower Stakeholders with Ownership

Data governance practices promoting data ownership could lead to a 20% increase in data quality initiatives championed by business users. Zubin offers team and data owner reports, fostering data ownership and accountability. Granular insights empower stakeholders to make informed decisions about data management within their areas.

Automate Remediation, Minimize Impact

AI-powered root cause analysis tools can cut down data quality issue resolution time by 40%. Zubin utilizes AI to automate root cause analysis, expediting problem identification and resolution. This translates to faster remediation cycles and minimizes the impact of data inconsistencies.

Simplify Data Governance with Personalized Workflows

Studies show enterprises with automated data governance processes experience 15% improvement in compliance audit efficiency. Zubin automates data workflow creation and execution based on your governance policies. This automates tasks, reduces errors, and streamlines compliance.

Proactive Risk Management, Enhanced Security

Proactive data risk management strategies can reduce data breaches by 20%. Zubin's multi-level analytics identify potential data privacy risks and enable proactive mitigation. Additionally, Zubin facilitates data isolation, access control, and data minimization practices to further enhance your overall data security posture.

Your next chapter of success awaits; let's write it together with Zubin.

[Click here for a demo](#)