



DATA GOVERNANCE PLAN

A Vision for a Data-Driven Organization

Authors: Data Governance Advisory Committee
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ABSTRACT

This document intends to provide the District with its Data Governance framework, emphasizing strategic alignment with District Goals through work plan activities and the Data Governance Program's organizational structure.

| AC Transit Core Values | | | | | | |
|------------------------|---------|------------------------------|--------|------------|-----------|-------|
| Safety | Service | Environmental Sustainability | Equity | Innovation | Integrity | Trust |

AC Transit Vision Statement: AC Transit is valued as a leader who helps the Bay Area thrive by connecting East Bay communities to regional destinations.

| AC Transit Strategic Goals | | | | | |
|----------------------------|-------------------------------|----------------------------------|---------------------------|-------------------------------------|---------------------------|
| Safe & Secure Operations | Convenient & Reliable Service | Financial Stability & Resilience | High Performing Workforce | Strong Public & Policymaker Support | Environmental Improvement |

Innovation and Technology Department

Mission Statement: We deliver innovative and cost-effective technology products and services that are reliable, secure, and sustainable to improve the transit experience.

Enterprise Data Strategy: Enable data-driven decision-making using an accurate, secure, and reliable enterprise data management platform.

Enterprise Data Governance

Data Governance is the composition of people, processes, and technologies used to manage critical Data Assets using roles, responsibilities, policies, and procedures to ensure the data is accurate, consistent, secure, and aligned with overall District Goals and priorities.

AC Transit's Data Governance aligns with the District's Core Values and goals by enhancing safety and service efficiency through informed decision-making. It promotes equity and environmental sustainability by ensuring responsible data use and supports financial stability through data-driven optimizations. This framework empowers our workforce, fosters public trust, and reaffirms our commitment to being a leading, connected community force in the East Bay.

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Data Governance (DG)

Data Governance is not simply a program or technology intended to address specific issues, nor is it limited to having a strategy alone; instead, it is a mindset that encompasses establishing a culture where the achievement, maintenance, appreciation, and utilization of data quality are prioritized to drive business success. Data governance is an organizational approach to data management that establishes policies and procedures to include the data's entire life cycle.

Data Governance Guiding Principles

Democratized Data Governance is a business-centric and modern approach to orchestrating data management, involving diverse stakeholders in advisory and decision-making processes. These processes include data collection, retention, utilization, distribution, and confidentiality. This approach promotes District-wide participation, ensuring decisions incorporate diverse perspectives. By embracing this democratic framework, the District empowers business-centric, data-driven decision-making at all tiers, optimizing the value extracted from data assets. **Table 1: DG Guiding Principles** Outlines the guiding principles of this approach.

Table 1: DG Guiding Principles

| Principle | Description | Benefit |
|---------------------------------------|--|--|
| • Inclusivity | Include diverse stakeholders, incorporating voices from various departments and backgrounds. | Diverse perspectives lead to well-rounded decisions. |
| • Accountability | Hold stakeholders accountable for data-related decisions, fostering a sense of responsibility and ownership. | Enhanced decision ownership and commitment. |
| • Participation | Encourage active involvement from all relevant parties, ensuring decisions are made collectively. | Comprehensive decisions reflecting varied insights. |
| • Collaboration | Promote stakeholder collaboration, enabling departments and individuals to work towards common goals. | Synergy in achieving shared data-related objectives. |
| • Transparency | Maintain transparent decision-making processes and data practices, allowing all participants to contribute. | Trust and understanding across stakeholders. |
| • Data Ownership & Control | Ensure every stakeholder has a voice in data ownership and control, fostering collaborative data management. | Shared responsibility and effective data control. |

Data Governance Plan

The Data Governance Plan guides the organization using the DG principles and features a DG Roadmap. The Steering Committee is instrumental in prioritizing data projects with organizational strategies, offering strategic direction, and prioritizing initiatives for optimal resource use. Working groups are established to focus on work plans outlining their specific objectives and tasks to implement this plan effectively. Refer to Table 2: DG Framework Components and Work Plan for details. These work plans align with District priorities, IT strategic goals, and the project roadmap. The objectives span data quality improvement, enhanced security, and more, all echoing the IT's Mission. The Workplan outlines each Data Governance Component and its respective Working Group's goals. These groups' collaborative and

coordinated efforts converge into a holistic, integrated approach to achieve data governance excellence.

Data Governance Framework & Tasks

A data governance framework is critical for AC Transit to ensure effective data handling, management, and protection. By implementing a comprehensive data governance framework, AC Transit can significantly improve data quality, reduce the risk of data breaches and other security incidents, and ensure compliance with relevant laws and regulations. This framework is essential for fostering a culture of data responsibility and accountability across the organization, enabling more informed decision-making and operational efficiency. Moreover, it plays a pivotal role in safeguarding the privacy and integrity of our riders' information, reinforcing public trust and confidence in our services. A robust data governance framework is a compliance requirement and a strategic asset supporting AC Transit's mission to provide safe, efficient, and sustainable transit solutions.

Table 2: DG Framework Components and Work Plan

| DG Framework: Components | Goal | Tasks |
|---|--|---|
| 1. Data Governance Policies and Procedures | Establish and update management policies for data and technology system handling, emphasizing ethics and transparency. | <ul style="list-style-type: none"> • Develop Comprehensive Policies: Update to incorporate ethical use guidelines alongside existing data governance policies, fostering a culture of collaboration and innovation. • Define Clear Procedural Guidelines: Enhance procedural guidelines to include processes for evaluating technologies against ethical, privacy, and security standards. • Ensure Cross-Departmental Collaboration: Leverage technological innovation and continuous evolution to enhance cross-departmental collaboration and training. • Establish Accountability Framework: Focus on aligning data governance with organizational goals through a structured accountability and risk management framework. |
| 2. Data Governance Organizational Structure and Management | Strengthen leadership and organization in data governance. | <ul style="list-style-type: none"> • Executive Steering Committee: The Committee oversees and prioritizes technology initiatives that contribute positively to the organization's goals. The committee appoints staff to lead and manage initiatives using ethical standards and provide routine progress updates to mitigate risks. • Define Governance Metrics: Incorporate data integrity standards in defining governance effectiveness metrics. • Organize Specialized Working Groups: Foster data sharing and collaborative learning among stakeholders through specialized working |

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| | | <p>groups.</p> <ul style="list-style-type: none"> • Appoint Key Personnel: Lead and implement the data governance plan by appointing a Data Governance Project Manager and Data Scientist, ensuring its regular update. Create AI Review Board members to focus on AI governance within the organizational structure. |
| 3. Open Data Program | Advance transparent and accessible data practices. | <ul style="list-style-type: none"> • Define Data Categories: Promote open data and collaborative learning while ensuring data quality and integrity in defining data categories. • Establish Data Sharing Guidelines: Emphasize rebuilding and reinforcing trust among stakeholders in establishing guidelines for data sharing. • Maintain Open Data Portal: Update the portal to include datasets aligned with district systems, ensuring they are accessible and properly annotated for public understanding and trust. • Promote Public Engagement: Foster a data-driven culture by utilizing open data to promote public engagement. |
| 4. Data Architecture and Infrastructure | Modernize data handling infrastructure. | <ul style="list-style-type: none"> • Upgrade Infrastructure: Upgrade systems to support software automation applications, ensuring infrastructure can handle data processing, storage, and security requirements. • Develop Open Data Architecture: Focus on collaborative policy development in developing an open data architecture. • Integrate Azure with Purview: Focus on integrating advanced technology tools that provide better oversight and management of curated data assets. • Adopt Best Practices: Emphasize the importance of data quality and a comprehensive data catalog in adopting industry best practices. |
| 5. Data Collection, Organize, and Analysis (COA) | Provide structured data for better decision-making | <ul style="list-style-type: none"> • Implement Strategic Data Acquisition: Emphasize maintaining data integrity and establishing a single source of truth in data acquisition strategies. • Apply Data Analysis: Utilize technology tools to enhance data analysis capabilities, ensuring the use of data is transparent, accountable, and aligned with organizational goals. • Enhance Data Models: Include automation techniques to improve data models, making them more predictive, efficient, and aligned with real-world applications. • Foster Collaborative Decision-Making: Engage stakeholders in the data analysis process, |

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| | | promoting collaborative decision-making. |
| 6. Data Quality | Elevate standards of data quality. | <ul style="list-style-type: none"> • Collaborate on Quality Projects: Implement collaborative policy development to improve data quality projects. • Follow Open Data Guidelines: Ensure data quality through training programs and monitoring mechanisms aligned with open data guidelines. • Utilize Governance Tools: Implement automation tools to monitor data quality continuously, identify discrepancies, and automate corrections where possible, ensuring high data quality standards are maintained. • Utilize a data catalog and business glossary: Develop a comprehensive catalog and glossary to standardize data terminology and usage. |
| 7. Data Security and Privacy | Ensure data protection compliance and ethical use. | <ul style="list-style-type: none"> • Enhance security measures: Integrate technology-driven security tools to identify and mitigate threats more efficiently, ensuring robust protection for sensitive and critical data. • Comply with regulations: Ensure data practices meet legal and regulatory requirements. • Strengthen access controls: Implement robust mechanisms for data access and modification controls. • Monitor and audit data use: Deploy technologies to enhance monitoring and auditing capabilities, ensuring compliance with data use policies and detecting anomalous or unauthorized activities. • Apply proper retention policies: Establish and enforce data retention and disposal policies to comply with legal and operational requirements. |
| 8. Data Visualization and Reporting | Improve data visualization and reporting capabilities | <ul style="list-style-type: none"> • Incorporate Advanced Analytical Techniques: Leverage technologies to process and visualize data more effectively, enabling deeper insights and comprehensive reporting capabilities. • Foster Collaborative Insights Generation: Engage stakeholders in the analytical process to ensure insights are actionable, relevant, and aligned with organizational goals, emphasizing the role of transformational leadership in encouraging innovative thinking. • Establish Technology Tools Standardization and Training: Implement a standardized set of |

| | | |
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| | | <p>productivity tools complemented by comprehensive training programs and guidelines to ensure consistency, efficiency, and adaptability in data handling and analysis across the organization.</p> <ul style="list-style-type: none"> • Enhance BI Publishing Management: Develop robust management practices for internal BI publishing that emphasize data integrity, security, and the effective dissemination of information, enabling stakeholders to access timely and relevant data insights. • Implement Regular Review Processes: Establish a systematic review process for BI development projects, aligning these projects with organizational goals, addressing specific data management needs, and ensuring continuous evolution in line with technological innovations. |
|--|--|--|

AI Framework & Guidelines Integration

The District is committed to upholding ethical standards and responsible use of AI technologies in alignment with the principles outlined in the AC Transit District's Artificial Intelligence (AI) Guidelines Admin Regulation. This Data Governance plan aims to ensure the effective management and utilization of data assets while adhering to ethical and legal standards in AI implementation. We adhere to the District's AI policy to ensure transparency, accountability, and privacy in AI implementation.

Appendices

Appendix 1: Organizational Committees and Leadership

The data governance organizational structure encompasses several critical groups identified in Figure 1: The Great Pyramid of Data Governance Leadership: the Executive Steering Committee, the Advisory Committee, six working groups, IT teams, data engineers, and a data governance manager. These committees play pivotal roles in ensuring the success of the data governance initiative and alignment with the District's Goals.

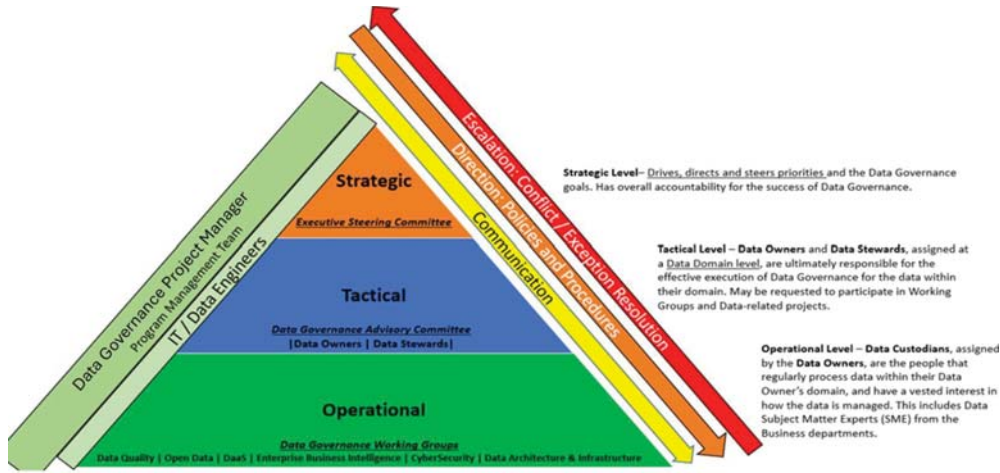


Figure 1: The Great Pyramid of Data Governance Leadership (External Facing)

Appendix 1.1: Data Governance Steering Committee

The Steering Committee, composed of high-level executives, plays a pivotal role in AC Transit's Data Governance. They are instrumental in aligning data projects with organizational strategies, offering strategic direction, prioritizing initiatives for optimal resource use, and making critical decisions. Their oversight ensures the successful integration of policy, strategy, and resource management, driving the program's overall effectiveness and alignment with AC Transit's goals.

Table 3: Data Governance Steering Committee

| Department | Position | Data Domain |
|--|----------------------------------|--------------------------------|
| Compliance Office | Dir of Civil Rights & Compliance | Civil Rights & Compliance Data |
| District Secretary | District Secretary | Board Policy Data |
| External Affairs, Marketing and Communications | Exec Director of EAMC | External Affairs Data |
| Finance | Chief Financial Officer | Finance Data |
| General Counsel | General Counsel | Legal Data |
| Human Resource Management | Exec Dir of Human Resources | Human Resource Data |

| | | |
|---------------------------|---|-------------------------------|
| Innovation and Technology | Chief Information Officer | Technology Data |
| Internal Audit | Internal Audit Manager | Audit Data |
| Media Relations | Manager Media Affairs & Strategic Initiatives | Media Affairs & Strategy Data |
| Operations | Chief Operating Officer | Operations Data |
| Planning & Engineering | Exec Director of Planning & Engineering | Planning & Engineering Data |
| Safety & Security | Dir of Safety, Security & Training | Safety & Security Data |

Appendix 1.2: Data Governance Advisory Committee

Chaired by the CIO, the Advisory Committee unites cross-departmental representatives for strategic collaboration in data projects. Members use their expertise to supervise the execution and optimize business outcomes. They engage stakeholders, offer critical feedback, and bolster change management. The Data Governance Manager is crucial in organizing and structuring these meetings. This committee is vital in aligning data governance with departmental and district-wide goals, ensuring practical and relevant practices.

Table 4: Data Governance Advisory Committee

| DISTRICT BRANCH | DEPARTMENT | BUSINESS UNIT | POSITION TITLE | DATA DOMAIN | ROLE |
|--------------------|-------------------------|--|---------------------------------------|-----------------------------------|-------------------------------|
| DISTRICT SECRETARY | DISTRICT SECRETARY | District Secretary | District Secretary | Board Policy Data | Data Owner |
| GENERAL COUNSEL | GENERAL COUNSEL | Legal | General Counsel | Legal Data | Data Owner |
| ACTRANSIT DISTRICT | INNOVATION & TECHNOLOGY | Innovation and Technology | Chief Innovation Officer | Innovation & Technology | Executive Sponsor |
| | | Innovation and Technology | Dir of Innovation & Technology | Enterprise Database Data | Program Owner |
| | | Network & Infrastructure | Innovation & Technology Manager | Network/ Infrastructure Data | Data Custodian |
| | | Cyber Security | Innovation & Technology Manager | Risk and Cyber Security Data | Risk Officer / Data Custodian |
| | | Project Management / Programming (DevTeam) | Enterprise Software Engineer (DevOps) | Enterprise Database (DevOps Data) | Data Owner/ Custodian |

| | | | | | |
|--|------------------------|--|--|------------------------------------|------------------------|
| | | Project Management / Programming (DevTeam) | Enterprise Software Engineer (Software Engineer) | Software Applications | Data Steward/Custodian |
| | | Innovation & Technology | Computer Ops Administrator | Boss Desk Data | Data Custodian |
| | FINANCE | Finance-Senior Management | Chief Financial Officer | Finance | Data Owner |
| | | Controller | Controller | Accounting Data | Data Stewards |
| | | Procurement and Materials | Dir Procurement & Materials Management | Procurement & Materials Data | Data Stewards |
| | | Treasury Management | Director of Revenue Management | Revenue Data | Data Stewards |
| | | Management and Budget | Director of Management & Budget | Budget Data | Data Stewards |
| | | Retirement | Retirement Manager | Retirement Data | Data Stewards |
| | | Payroll Administration | Payroll Manager | Payroll Data | Data Stewards |
| | | Transportation Senior Management | Director of Transportation | Transportation Data | Data Stewards |
| | | Fleet & Facility Maintenance | Director of Maintenance | Fleet & Facilities Data | Data Stewards |
| | | Training & Education | Training And Education Manager | Training Data | Data Stewards |
| | OPERATIONS | Tech Services/QA | Technical Services Manager | Warranty & Technical Services Data | Data Stewards |
| | | Planning & Engineering | Chief of Planning & Engineering | Planning & Engineering Data | Data Owner |
| | PLANNING & ENGINEERING | Capital Projects | Director of Capital Projects | Capital Projects Data | Data Steward |

| | | | | | |
|---------------------|---|----------------------------------|--|--|--------------|
| | | Service Development | Director of Service Development & Planning | Service Planning Data | Data Steward |
| | | Business Sciences | Director of Business Sciences | Reporting | Data Steward |
| | | Business Sciences | Manager of Business Analytics | Reporting | Data Steward |
| | | Business Sciences | Sr. Management Analyst | Reporting | Data Steward |
| | | Business Sciences | Statistical Data& Info Analyst | Reporting | Data Steward |
| | HUMAN RESOURCES | Learning and Development | Human Resources Manager | Learning and Employee Development Data | Data Steward |
| Talent Acquisition | | Human Resources Manager | HR Data | Data Steward | |
| Leave Management | | Human Resources Manager | Leave Management Data | Data Steward | |
| Class/Comp and HRIS | | Human Resources Manager | HRIS Data | Data Steward | |
| Benefits | | Human Resources Manager | Benefits Data | Data Steward | |
| Employee Relations | | Human Resources Manager | Employee Relations Data | Data Steward | |
| | EXTERNAL AFFAIRS, MARKETING, COMMUNICATIONS | Customer Services Administration | Administrative Coordinator | Customer Services Data | Data Steward |
| | | Customer Services Administration | Administrative Coordinator | Customer Complaint Data | Data Steward |
| | | Legis Affairs and Comm Outreach | Dir of Legis Affairs & Communication Relations | Legislative Affairs Data | Data Steward |

| | | | | | |
|--|----------------------------------|--------------------------------------|---|---|-----------------|
| | | Marketing/ Community Relations | Marketing/ Communicati ons Manager | Marketing Data | Data Steward |
| | COMPLIANCE | Compliance Office | Dir of Civil Rights & Compliance | Civil Rights & Compliance Data | Data Owner |
| | INTERNAL AUDIT | Internal Audit | Internal Audit Manager | Audit Data | Data Owner |
| | MEDIA RELATIONS | Media Relations | Manager Media Affairs & Strategic Init | Media Data | Data Owner |
| | SAFETY & SECURITY | Safety & Security | Safety Administrator | Safety Data | Data Owner |

Appendix 1.3: Data Governance Working Groups

The Working Groups are pivotal in implementing AC Transit's data governance framework, aligning with District goals to enhance collaboration and effective risk management. Comprising diverse business experts, these groups focus on critical aspects of the Data Governance Plan, led by appointed chairs and vice chairs. They are crucial in ensuring strategic alignment, effective resource allocation, and informed decision-making. The **Table 5: Data Governance Working Groups**, details each group's specific purpose and goals, emphasizing their contribution to the District's broader objectives.

Table 5: Data Governance Working Groups

| Working Group | Purpose | Goals | Value Summary (Outcome) |
|--|--|--|--|
| 1. Data Quality (DQ) | Elevate Data Quality Standards | Improve standards for better decision-making | Achieved improved decision-making, accuracy in insights, and desired District outcomes |
| 2. Data Infrastructure & Architecture | Modernize infrastructure with cloud platforms | Incorporate clouds for advanced analytics and efficiency | Drive more value from data, innovate faster, and achieve agility through modernized systems |
| 3. Open Data | Advance transparent and accessible practices | Promote transparency, innovation, and collaboration | Enable informed decisions, better outcomes, and community trust through accessible practices |
| 4. Data as a Service (DaaS) | Ensure structured data via models | Provide structured data for enhanced decision-making | Enhanced decision-making, streamlined processes, and data-driven insights through models |
| 5. Enterprise Business Intelligence & Analytics | Optimize data usage for enhanced decision-making | Improve BI for better insights | Enhanced decisions, reporting, and District performance through optimized data usage |
| 6. Cyber-Security | Ensure data security and protection | Mitigate risks, protect sensitive data, ensure | Safeguard data, maintain compliance, and protect the District's data assets |

| | | | |
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| | | compliance | |
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Appendix 2: Data Governance RACI

Table 6: Data Governance RACI, represents a structured approach to managing District data, delineating clear roles and responsibilities for stakeholders. This RACI chart enhances communication, establishes accountability, and promotes consistent data management practices, ensuring data quality, privacy, and compliance. It empowers the District with transparency and collaboration, fostering effective data governance. This leads to data-driven decision-making and maximizes the value derived from data assets.

Table 6: Data Governance RACI

| Responsibility | CIO | Steering Committee | DGAC | Data Owner | Data Steward | Data Governance | DG Groups* | District |
|--|-----|--------------------|------|------------|--------------|-----------------|-----------------------|----------|
| 1. Lead the development of frameworks and policies and facilitate and create training plans. | C | C | C | I | I | A, R | I (All WG) C (SME) | I |
| 2. Embrace a Data Governance Plan | R | A | R | R | R | R | R (All) C (SME) | R |
| 3. Enhance Data Infrastructure and Architecture | A | I | C | C | C | C | R (DAI) C (SME) | I |
| 4. Implement Access Controls for Data Security and Privacy | C | A | C | C | C | C | R (CSWG) C (SME) | I |
| 5. Manage the Open Data Program | C | C | A | C | R | R | R (ODWG) C (SME) | I |
| 6. Optimize Business Intelligence Tools for Visualization and Reporting | C | C | A | C | R | R | R (BIWG) C (SME) | R |

RACI definition: The RACI model is a tool for clarifying and defining roles and responsibilities for tasks or activities. The acronym RACI stands for Responsible, Accountable, Consulted, and Informed. It helps ensure clear communication and accountability, fostering efficient and effective stakeholder collaboration.

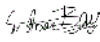
Appendix 3: Strategic Actions

Strategic Actions and Outcomes collectively constitute the Data Governance Plan, a pivotal data governance framework designed to ensure streamlined data management that harmonizes with District objectives while maximizing the potential value of data assets. The **Table 7: Strategic Actions**, outlines each initiative assigned to dedicated groups and teams executing their work

plans. This approach fosters a comprehensive and synchronized effort toward achieving data governance excellence.

Table 7: Strategic Actions

| Area of Focus | Key Actions | Outcome |
|---------------------------|--|--|
| Program Management | <ul style="list-style-type: none"> - Formalize a Data Governance Steering Committee for strategic guidance. - Establish program metrics to track and monitor. - Implement administrative regulations. - Create a solid organizational structure to manage Data Governance Activities | Enhanced data management, clearly defined roles and strategic alignment with governance standards. |
| Data Management | <ul style="list-style-type: none"> - Enhance Data Quality Standards to meet business data requirements. - Maximize utilization of Data Catalog and Business Glossary. | Improved data accuracy, accessibility, and alignment with Key Performance Indicators (KPIs) and Open Data Guidelines to enable better decision-making. |
| Data Analytics | <ul style="list-style-type: none"> - Optimize workflows and refine internal publishing protocols. - Elevate key projects to drive impactful business insights. | Streamlined data access, improved reporting, and upgraded technology capabilities for enhanced business insights. |
| Open Data | <ul style="list-style-type: none"> - Strengthen community trust through increased data transparency. - Elevate data quality by adhering to new standards and streamlining validation processes. | Increased data transparency, automated delivery, enhanced security, and improved data integration for better insights. |


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