

White Paper

# Crafting a Resilient Single Source of Truth for **Supply Chain** Excellence



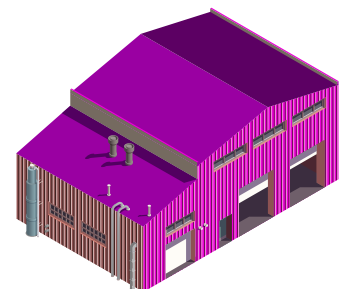
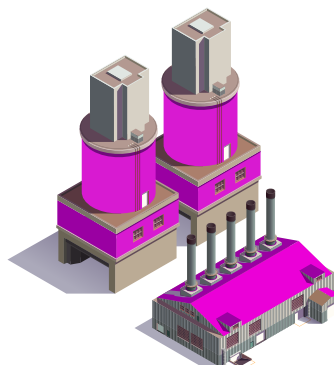
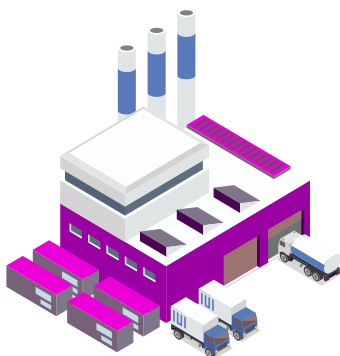
# Consider the following business outcomes

1. An aerospace manufacturer replaced labor-intensive Excel spreadsheets and disparate ERP systems with a unified inventory optimization solution, achieving over \$20 million in inventory reductions within 90 days across its global network of factories.
2. A global technology manufacturer replaced cumbersome spreadsheets with advanced AI-driven models, enhancing demand planning accuracy and collaboration, ultimately leading to an estimated \$19 million in annual inventory-related savings.
3. A major cosmetics company transitioned from a store-focused model to a data-driven approach by implementing a consumer data platform, resulting in a 30% increase in revenue and improved management of omnichannel supply chain inventories.
4. A leading national pizza chain integrated its POS systems with supply chain inventory, replacing outdated spreadsheets and enabling accurate demand forecasting and cost optimization through machine learning.
5. A homeware company replaced manual supply chain planning processes and disparate data silos with a unified, machine-learning-enabled platform, resulting in increased product availability to over 99%, increased resilience against supply chain disruptions, and a reduction in excess stock by 3.4%.

The significance of these examples cannot be overstated; they underscore the transformative power of shifting from fragmented data repositories to a single source of truth (SSoT). In each case, the adoption of an SSoT streamlined internal workflows and led to quantifiable gains that directly impacted the bottom line. An SSoT enabled these companies to break down informational silos, make data-driven decisions, and significantly improve their operational efficiencies.

Maintaining a single source of truth is no longer just a best practice—it's a business imperative for staying competitive in today's fast-paced, data-driven world. It serves as the backbone of any serious effort to implement machine learning algorithms, predictive analytics, or advanced planning systems. By centralizing critical data, organizations empower their teams with real-time, consistent information, setting the stage for innovation, strategic alignment, and sustainable growth.

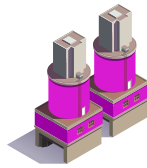
In the following pages, we will delve into the mechanics and strategies for implementing an SSoT in your own organization.



# The latest highlights from industry research on supply chain data



Every year, poor data quality costs organizations an average of \$12.9 million.



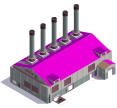
Through 2026, 80% of companies will suffer significant value loss due to a failure to merge their digital supply chain twin and control tower initiatives.



Half of supply chain organizations will have invested in artificial intelligence (AI) and advanced analytics by the year 2024



When supported by digital trade-off analysis technology, local decision-makers are 83% more likely to make a good decision than global decision-makers.



60% of CSCOs are currently piloting or planning to implement supply chain digital twin in their organizations.



38% of organizations are improving supply chain technologies to support end-to-end processes



Only 21% of respondents stated that they have a highly resilient network today, meaning good visibility and the agility to shift sourcing, manufacturing, and distribution activities around fairly rapidly.



Over the next three years, over 40% of CSCOs are planning to implement an application programming interface (API), blockchain or other solution that enables real-time supply chain data exchange.

These statistics illustrate a critical, urgent need for organizations to invest in establishing an SSoT for their supply chains. Poor data quality alone has proven to be a costly impediment; fragmented, inconsistent data compromises your decision-making and eats into your bottom line.

The numbers reflect a clear understanding among CSCOs of the importance of implementing real-time data exchanges and AI technologies. Then why do so few organizations have a highly resilient network? This indicates that the majority are still grappling with poor visibility and inflexibility in their supply chains.

Today, businesses cannot afford to make mistakes due to insufficient or poor-quality data. Furthermore, access to current and accurate data must be widespread, empowering local decision-makers to often make more effective choices than global business leadership. Moreover, the insights above suggest that half-measures and disjointed efforts are not just insufficient; they are risky. Organizations that overlook the importance of a unified, data-driven approach are putting themselves at a competitive disadvantage.

# What is a single source of truth?

In the realm of supply chain management, a single source of truth acts as a consolidated data hub that serves as the definitive repository for accurate, real-time information specific to supply chain operations. This centralized platform aims to collate essential supply chain metrics—such as order status, inventory levels, supplier performance, and demand forecasts—ensuring that stakeholders from procurement, logistics, and warehousing to distribution centers and executive leadership are all aligned and making decisions based on the same set of data.



By embracing an SSoT approach, organizations can eradicate the challenges of fragmented data landscapes commonly seen in complex supply chains. This alleviates issues like duplicate records of inventory, conflicting supplier quality assessments, and varying demand forecasts, thus streamlining data-driven processes like just-in-time inventory management, supplier negotiations, and predictive analytics for demand planning.

As a result, instead of navigating through multiple disjointed databases or spreadsheets and debating the reliability of diverse data sources, everyone within the supply chain ecosystem can refer to this unambiguous, singular repository for insights that drive tactical and strategic decisions.

## Key characteristics of an SSoT

### Reliable

The data is verified and trustworthy.

### Accessible

The data is easily available to those who need it.

### Real-Time

The repository is continuously updated to reflect the most current data.

### Trustworthy

Measures are in place to ensure data is not tampered with.

### Uniform

Data definitions and metrics are standardized across the organization.

Establishing a supply-chain-specific SSoT offers a streamlined, unified view that enables rapid, informed decision-making, while enhancing data integrity and consistency across various facets of supply chain operations.

# Why pursue a single source of truth for a consumer-brands supply chain?

Why is a single source of truth a must-have for consumer brands? The answer lies in the inherent complexity of consumer-brand supply chains and the ever-growing consumer demand that drives the business landscape today.

## Business Complexity

Consumer brands juggle numerous vendors, fluctuating demand patterns, and intricate global sourcing models. These complexities make it imperative to have a centralized system, like an SSoT, to ensure seamless operations.

## Risk Mitigation

With supply chains often stretched across continents, risks ranging from transportation delays to geopolitical issues can disrupt operations. An SSoT allows for real-time risk assessment, enabling swift responses to mitigate these risks.

## Consumer Expectations

Fast delivery, transparency, and sustainability—achievable with an effective SSoT. Today's consumers expect more than just a product; they demand fast delivery, complete transparency, and a commitment to sustainability. An effective SSoT helps consumer brands meet these expectations head-on by streamlining operations and data flow.

For consumer brands, an SSoT isn't a luxury; it's a necessity. In the increasingly complex consumer-brand landscape, pursuing a single source of truth provides a strong foundation for maintaining competitiveness, mitigating risks, and satisfying the modern consumer.

## ROI and Profitability

The return on investment (ROI) for companies employing an SSoT speaks for itself. Data shows that companies with a well-implemented SSoT have seen as much as a 30% increase in ROI within just a year.

## Competitive Advantage

An SSoT isn't merely a buzzword; it's a powerful tool that provides a competitive edge. Businesses that have been early adopters report measurable gains in customer satisfaction, proving the tangible benefits of this centralized approach. Early adopters of SSoT have reported a 25% increase in customer satisfaction.



# Establishing an SSoT for your supply chain makes many other initiatives possible:

<b>Just-in-Time Inventory Management</b> Accurate, real-time data helps in reducing inventory costs and increasing efficiency.	<b>Demand Forecasting</b> An SSoT improves the accuracy of demand projections, allowing for better planning and stock management.	<b>Supplier Relationship Management</b> A unified data source can streamline supplier evaluations and negotiations.	<b>Route Optimization</b> Consolidated data assists in choosing the most efficient and cost-effective delivery routes.	<b>Quality Control Monitoring</b> Real-time data on a single platform can simplify quality assurance processes across the supply chain.
<b>Real-time Tracking and Visibility</b> With an SSoT, tracking of shipments and inventory is centralized, improving transparency.	<b>Compliance Management</b> A unified database simplifies the management of compliance documentation and auditing.	<b>Sustainable Sourcing</b> Consolidated data can provide insights into the sustainability practices of suppliers, aiding in responsible sourcing decisions.	<b>Dynamic Pricing</b> An SSoT allows for real-time pricing adjustments based on various supply chain conditions like demand, supply, and logistics costs.	<b>Procurement Analytics</b> Comprehensive data on an SSoT can support better purchasing decisions.
<b>Cross-Docking Efficiency</b> SSoT helps in real-time matching of incoming and outgoing shipments, reducing the need for warehouse storage.	<b>Distributed Order Management</b> Centralized data helps in optimal order routing and fulfillment.	<b>Predictive Maintenance</b> Use of SSoT for machine data can predict when maintenance is due, minimizing downtime.	<b>Workforce Management</b> An SSoT can help in optimizing the deployment of human resources across different supply chain functions.	<b>Risk Management</b> With a comprehensive view of the supply chain, companies can better identify and mitigate risks.



# Crafting a resilient single source of truth in supply chain management

Supply chains have grown increasingly complex and data-driven, and so organizations that use different systems of record for each region, channel, or business function will find themselves inundated with conflicting information. In contrast, an SSoT serves as the cornerstone for making informed decisions, optimizing operations, and achieving organizational goals.

## Data Audit

Before diving into creating an SSoT, it's imperative for organizations to conduct an initial data audit. This involves scrutinizing existing data repositories, assessing the reliability and quality of various data sources. It's the crucial first step in eliminating redundant or conflicting information that undermines effective decision-making.

## Tool Selection

One of the essential tasks in building an SSoT is selecting the right tools for data integration and analytics. Your choice of tools should be able to handle your current requirements and should also be scalable enough to adapt to future needs. Ensure these tools are compatible with your existing technology stack and are suited to facilitate the creation and maintenance of an SSoT.

## Data Cleansing

The process of data cleansing plays a critical role in establishing an SSoT. It involves sifting through the data to identify and remove duplicate entries, correct inaccuracies, and standardize formats. Through rigorous data cleansing, organizations can be confident that their SSoT serves as an accurate and reliable repository for strategic decision-making.

## Data Integration

Once the data is clean, the next hurdle is integrating it into a unified repository. It involves defining a consistent set of data definitions and formats across the organization. This ensures that whether it's a logistics team in one country or a procurement department in another, everyone is on the same page, thereby establishing a coherent view of organizational data.

## Data Governance

Building an SSoT is a technical endeavor as well as a governance challenge. A robust governance model sets the ground rules for who has access to what data and establishes a chain of accountability. It also ensures compliance with various industry regulations and standards, serving as the backbone that upholds the SSoT's integrity over time.

## Testing and Validation

Creating an SSoT is not the end of the road; it's the beginning of a journey. Ensuring its reliability requires ongoing testing and validation. Whether it's through simulated scenarios or actual case studies, continuous testing provides insights into the SSoT's efficacy, accuracy, and adaptability.

## Ongoing Maintenance

The SSoT is an evolving entity. As business conditions change and technology advances, it must adapt. This means regular audits to identify any gaps, timely updates to include new data sources, and periodic governance reviews to ensure the model is still relevant.

# Data audit: Your SSoT's foundation

Today more than ever, data is an invaluable asset for companies. It enables agile decisions, drives strategies, and ultimately impacts the bottom line. Yet, maintaining multiple data sources creates confusion, leading to erroneous or ineffective decision-making. The first and perhaps the most critical step to resolving this issue is conducting a Data Audit. This foundational activity paves the way for establishing a robust single source of truth.

## Why Data Audit is Crucial

The data audit serves as a diagnostic tool for organizations to scrutinize their existing data landscape. It aims to assess the quality, reliability, and integrity of the information stored across different repositories. An effective data audit identifies gaps, inconsistencies, and redundancies that need to be addressed. It ensures that the subsequent SSoT becomes an accurate and reliable reference point for organizational decision-making.

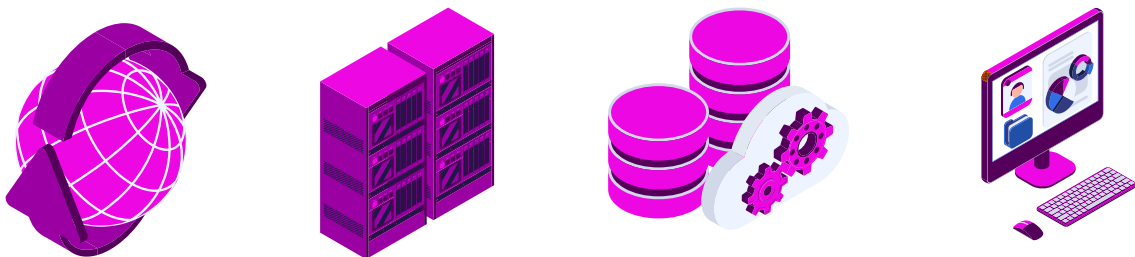
## Pre-Audit Preparation

Before diving headlong into a data audit, a few preliminary steps need to be taken:

- Assemble a cross-disciplinary team of data analysts, domain experts, and IT personnel to guide the audit process.
- Define clear audit objectives, such as enhancing data quality or achieving regulatory compliance, to ensure that the audit delivers actionable insights.

## Identifying Data Repositories

Data often resides in disparate silos within an organization. Whether it's Excel spreadsheets on a local server, cloud-based storage solutions, or third-party services like CRMs, it's vital to compile a comprehensive list of all data repositories. This central index will serve as the cornerstone of the auditing process.



## Assessing Data Quality and Reliability

Assessing the data's quality involves various criteria such as accuracy, completeness, consistency, and timeliness. Reliability often pertains to the trustworthiness of the data source and its historical record of providing good data. By evaluating data on these parameters, organizations can gauge how well their existing information will serve their future needs.



## Red Flags to Look For

During the audit, certain anomalies are bound to emerge. These issues, if left unaddressed, can pollute the data pool, and compromise the integrity of the future SSoT.

Auditors should be especially wary of:

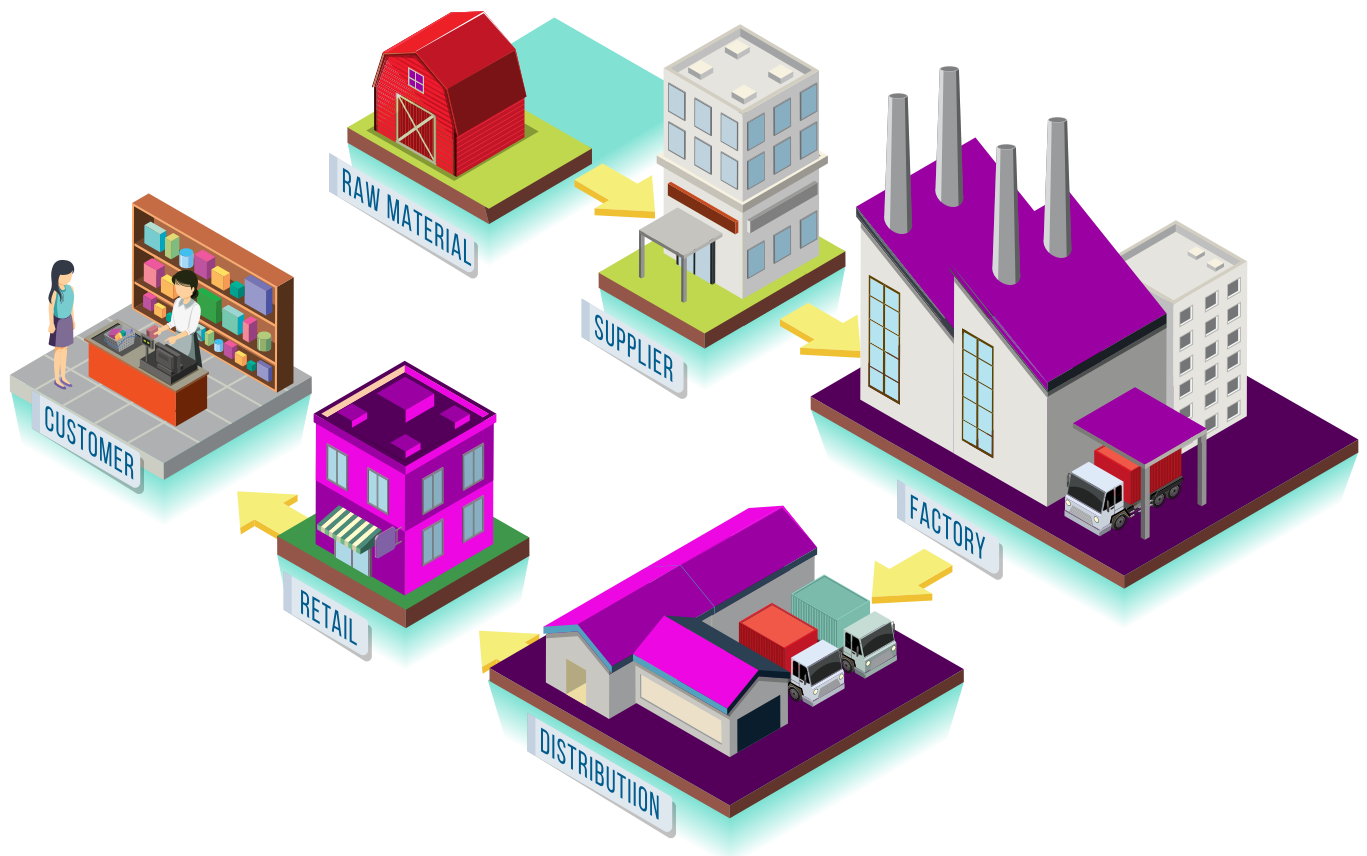
- Duplicates
- Missing values
- Inconsistent formats

## Techniques and Tools

Modern data audit techniques range from statistical data analysis to machine learning algorithms for anomaly detection. Additionally, specialized audit software can assist in scrutinizing vast data sets more efficiently than manual methods. Selecting the right set of tools is crucial for carrying out an effective audit.

## Data Audit Report

Upon completion, a comprehensive data audit report should be prepared, summarizing the findings and outlining the next steps. This document will flag any issues and offer recommendations for improving data quality and governance.



# Tool selection: Ensuring fit and scalability

Supply chain management is no longer just about moving goods from point A to point B. It's about the effective management of a deluge of data, from real-time inventory levels to global shipping schedules. This immense complexity makes the task of selecting the right tools to manage your data crucial. This page will delve into the importance of tool selection as a cornerstone for establishing and maintaining an SSoT in your supply chain operations.

## The Criteria for Selecting Tools

The first step in selecting the right tools for your SSoT is to understand your organization's specific needs. Tools should be assessed based on several key criteria, including:

- **Scalability:** Can the tool handle an increasing volume of data as your organization grows?
  - **Compatibility:** Is the tool compatible with your existing technological infrastructure?
  - **Functionality:** Does the tool facilitate the creation and long-term maintenance of an SSoT?
- Understanding these parameters can significantly narrow down your options and guide you toward the most suitable solutions.

## Current Needs vs. Future Scalability

While it's crucial to select tools that meet your organization's current needs, it's equally vital to think about the future. The tools you choose should be scalable to adapt to changing data volumes, types, and complexities. Opting for tools with built-in scalability features can spare your organization the costs and efforts of transitioning to new platforms as you grow.

## Compatibility with Existing Tech Stack

You must ensure that each tool you choose is compatible with your existing technology stack. Mismatched technologies can result in redundant work, data silos, and costly integration challenges. To avoid these pitfalls, you should strongly prefer tools that offer integration capabilities with your current systems.



## Types of Tools: Integration and Analytics

While establishing an SSoT, two broad categories of tools play a critical role: data integration tools and data analytics tools.

- **Data Integration Tools:** These tools are responsible for pulling in data from multiple sources and collating it into a single, unified repository.
- **Data Analytics Tools:** Once data is integrated, analytics tools help in making sense of it. They provide the capabilities to analyze data patterns, generate insights, and ultimately aid in decision-making.

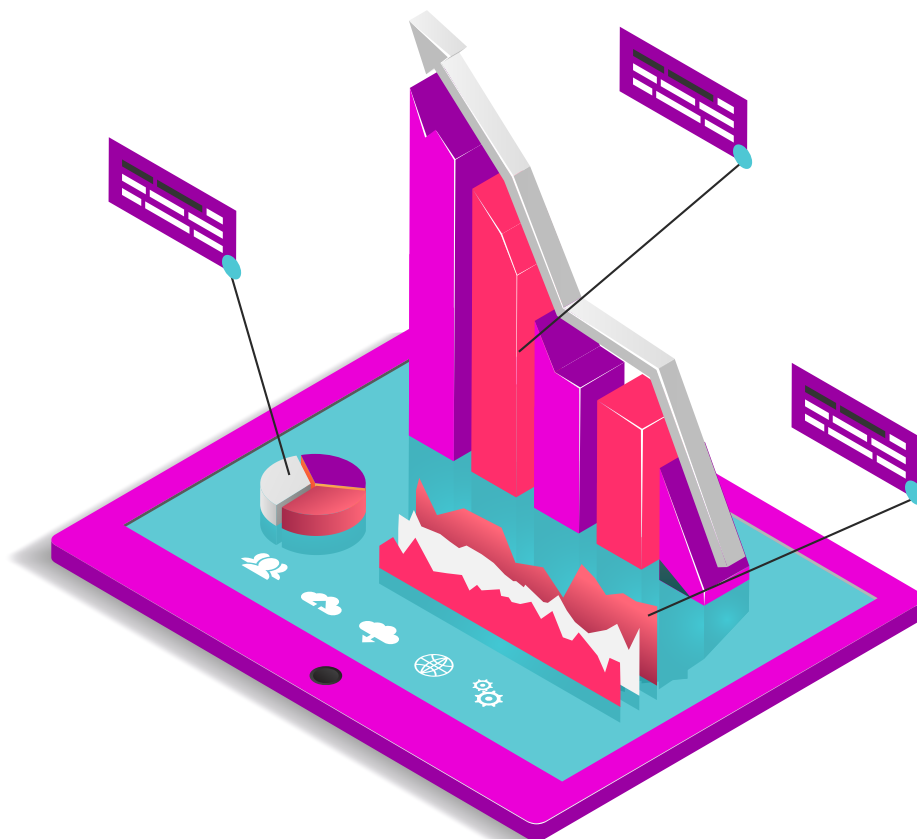
Both types of tools are essential for the effective establishment and operation of an SSoT.

## Vendor Evaluation and Pilot Testing

Before finalizing your tool selection, it's advisable to conduct thorough vendor evaluations and even run pilot tests if possible. Due diligence on vendor capabilities, security features, and customer reviews can provide valuable insights. Pilot tests or proof of concept projects can further validate a tool's effectiveness and its fit with your organization's needs.

## Cost Considerations

Cost is invariably a significant factor in any tool selection process. Organizations should consider not just the upfront licensing fees, but also ongoing maintenance costs, as well as the potential ROI. Budgeting for these can help ensure that your chosen tools offer value for money in both the short and long term.



# Data cleansing: Ensuring accurate data

As organizations move towards the establishment of an SSoT in supply chain management, one element often overlooked but critical to the system's integrity is data cleansing. Having a clean, reliable dataset enhances operational efficiency and strategic decision-making.

## The Importance of Data Cleansing

Data integrity is an integral component of an SSoT. Unclean data can severely disrupt operational efficiencies, lead to incorrect decision-making, and ultimately result in an unreliable SSoT. Data cleansing is the fundamental element that ensures the veracity of the SSoT you're aiming to build.

## Identifying Duplicate Entries

Among the first tasks in the data cleansing process is identifying and removing duplicate entries. This step requires sophisticated tools and techniques to sift through extensive datasets, flagging identical records for removal. Eliminating these duplicates ensures that each entry in your SSoT is unique, thereby preventing any redundancies that could compromise decision-making.

## Correcting Inaccuracies

Data inaccuracies can range from outdated information to incorrect numerical values. Such errors necessitate thorough verification and correction methods. Whether it's a price point, a supplier's contact information, or inventory levels, the aim is to correct these inaccuracies to ensure each data point is both current and accurate.

## Standardizing Formats

Maintaining uniform data formats is vital for the seamless functioning of an SSoT. Different departments or even different team members may use various formats, leading to discrepancies when data is aggregated. A critical aspect of data cleansing is to standardize these formats so that they are coherent and comparable, irrespective of their origin.

## Automation in Data Cleansing

Manual data cleansing can be an exhausting and error-prone exercise. Therefore, automation plays an essential role in this process. Automated tools, combined with machine learning algorithms, can carry out repetitive tasks such as identifying duplicates or flagging outliers, thereby accelerating the data cleansing process while minimizing human error.

## Quality Assurance Post-Cleansing

Once the data is cleansed, the next crucial step is to validate its quality. This involves using a set of predefined metrics to assess accuracy, completeness, and reliability. Ensuring the quality of cleansed data is vital before integrating it into your SSoT, as it sets the stage for a dependable and robust system.

# Data integration: Unifying your data

Data integration is more than just a technical term; it's a transformative process that unites disparate data from multiple departments, platforms, and geographical locations into a single, coherent source of truth. Once the initial steps of data audit and data cleansing are completed, data integration serves as the linchpin that ensures organizational coherence and facilitates effective decision-making.

## Objectives of Data Integration in SSoT

The primary objectives of data integration in the context of an SSoT include:

- **Organizational Coherence:** Ensuring that all departments work with the same data definitions and formats
- **Operational Efficiency:** Streamlining business processes by providing unified data access
- **Effective Decision-Making:** Enabling data-driven decisions that are based on a comprehensive and accurate data set

## The Process of Data Integration

Data integration isn't a one-time event but an ongoing process. It involves a series of steps that collectively contribute to creating an SSoT:

### Data Definitions

The first step in data integration is establishing consistent data definitions across different departments. Without common definitions, the same term might mean different things in different parts of the organization, causing confusion and reducing data integrity.

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### Data Formats

To ensure seamless data integration, you need a uniform set of data formats. This means that date formats, monetary units, and other critical elements should be standardized across all data sources.

### Data Mapping

After setting definitions and formats, the next step is to create data maps. These maps align different types of data from various sources to ensure they are accurately represented in the SSoT.

## Challenges in Data Integration

Despite its importance, data integration comes with its own set of challenges:

- **Incompatible Technologies:** Different departments might be using different platforms and technologies
- **Varying Data Quality:** Different sources may have varying levels of data quality and reliability
- **Resistance to Change:** Employees may be reluctant to adopt new systems and processes, causing delays and complications

## The Role of Technology

Modern tools and technologies play a vital role in streamlining the process of data integration. Among these are:

- **ETL (Extract, Transform, Load) Methods:** These are often employed to move data from multiple sources into a single repository
- **Data Warehousing:** This is useful for storing large volumes of data in a manner that's optimized for query and analysis
- **API-led Connectivity:** This involves using APIs to facilitate data flows between different systems and platforms

## Data Integration and Global Operations

For organizations that operate on a global scale, data integration must also consider localization, time zones, and legislative differences related to data storage and access. The SSoT should be flexible enough to accommodate these variables without compromising data integrity.

## Best Practices

Finally, to ensure successful data integration, here are some best practices to consider:

- Prioritize data sources based on their reliability and relevance.
- Keep the end-users in the loop to ensure that the data integration meets their needs.
- Adopt a phased approach, starting with less complex data and moving to more complex datasets as the system matures.



# Data governance: Your SSoT's backbone

Data governance isn't just a subset of data management; it's the very foundation that ensures the integrity and reliability of an SSoT. Governance provides the guidelines and structures for data access, quality, and management. Without robust data governance, even the most advanced SSoT will soon be rendered ineffective.

## Objectives of Data Governance

The objectives of data governance within the context of an SSoT include:

- **Security & Access:** Ensuring that sensitive information is well-protected and instituting procedures for data access and modification
- **Data Quality:** Maintaining a high standard of data reliability and accuracy
- **Regulatory Compliance:** Ensuring adherence to industry-specific rules and guidelines
- **Roles & Accountability:** Establishing a clear chain of responsibility and clarifying roles **within the data governance model**
- **Conflict Resolution:** Providing a framework for resolving data-related issues

## Setting Access Permissions

One of the key aspects of data governance is regulating who can access what data. Various roles, often hierarchical, are defined to establish levels of data access. Examples include:

- **Data Stewards:** Manage and monitor data quality
- **Data Owners:** Hold ultimate responsibility for datasets
- **End Users:** Consume data for operational tasks

## Compliance and Regulation

In an era where data breaches and misuse are common, regulatory compliance is more important than ever. Effective data governance ensures that data storage and utilization are in line with legal requirements, such as GDPR in Europe or CCPA in California.

## Accountability and Audit Trails

Establishing accountability is crucial. Audit trails must be maintained for every change or access to the data. These records enable tracing back actions to individuals, facilitating transparency and compliance.

## Data Quality Assurance

Data governance ensures that data entering the SSoT meet quality standards. Processes like data quality audits help in continuous monitoring and improvement.

## Data Governance Tools

Specialized software can assist in data governance by:

- Automating role-based data access
- Managing data lineage
- Facilitating compliance checks

## Governance in the Age of Big Data

With the explosion of Big Data, the role of data governance is evolving. It must now accommodate more complex data types and sources while retaining its focus on data quality and security.

## Best Practices

To ensure the success of data governance, consider the following best practices:

- Engage stakeholders from various departments.
- Update governance policies to reflect technological and regulatory changes.
- Conduct periodic governance audits to identify areas for improvement.

# Testing and validation: Ensuring reliability

Creating an SSoT is not a one-time effort but an ongoing journey that requires continuous testing and validation. This phase is essential for confirming the system's efficacy, accuracy, and adaptability to changing business conditions. In this guide, we delve into the importance and best practices for testing and validating your SSoT.

## The Importance of Testing and Validation

Testing and validation are the quality assurance mechanisms of your SSoT. Neglecting this crucial phase can cause significant setbacks in operational efficiency, data quality, and strategic decision-making. Organizations that underestimate the need for rigorous testing can find themselves grappling with data inconsistencies, reduced system performance, and compromised security.

## Objectives of Testing and Validation

- **Data Accuracy:** The primary objective is to confirm that the data stored in the SSoT is reliable and free from inconsistencies or errors.
- **System Performance:** Your SSoT must be able to handle large volumes of data quickly and efficiently.
- **Security Compliance:** Ensuring that your data is secure is crucial. Validation processes must confirm that security protocols are in place and are effective in warding off potential threats.

## Types of Testing

- **Functional Testing:** Involves validating that each feature and component of the SSoT works as designed. This might include testing search functions, data retrieval speed, and user interface effectiveness.
- **Performance Testing:** Assesses how well the SSoT performs under different operational conditions. This focuses on speed, responsiveness, and stability, ensuring that the system can handle peak loads without crashing or slowing down significantly.
- **Security Testing:** Indispensable for an SSoT. Through penetration tests, vulnerability scanning, and other security checks, you identify and patch security loopholes that could potentially be exploited.

## The Iterative Nature of Testing

Testing your SSoT is not a one-time affair but an iterative process. Every time a change is made—be it a system upgrade, new data integration, or a shift in user roles—retesting is necessary to ensure that the SSoT's integrity remains uncompromised.

## The Role of Analytics

Advanced analytics tools can be employed to monitor the performance and reliability of your SSoT. These tools provide data-driven insights, which can be invaluable in guiding your future testing cycles and even daily operations.

## Human Oversight vs Automation

Both automated testing tools and human oversight have their merits in the testing and validation process.

- **Automated Testing Tools:** These tools can streamline routine checks, identifying issues more quickly than manual methods.
- **Human Oversight:** While automation can handle quantitative assessments efficiently, human expertise is often necessary for more qualitative judgments, such as evaluating the system's usability or ethical considerations in data handling.

## Addressing Testing Challenges

Common challenges in testing an SSoT include dealing with enormous data sets, ensuring cross-departmental cooperation, and staying compliant with ever-changing regulations. Strategies to overcome these challenges might involve setting up dedicated testing environments, fostering inter-departmental communication, and keeping abreast of industry regulations.



## Simulation Scenarios

Simulated scenarios play a pivotal role in testing the robustness of an SSoT. By mimicking real-world conditions, these simulations offer valuable insights into how the system will perform.

# Ongoing maintenance: Ensuring longevity and relevance

The creation of an SSoT in supply chain management is an integral milestone for any organization aiming for operational excellence. However, the journey doesn't end there. The world of business and technology is always in flux, which makes ongoing maintenance a requisite for keeping your SSoT relevant. In this article, we delve into why maintaining your SSoT is as vital as building it, and how to go about it.

## Objectives of Ongoing Maintenance

**Data Accuracy:** An SSoT's utility hinges on the accuracy of the data it contains. Over time, even the most rigorously designed system may experience 'data drift,' where small inaccuracies accumulate into significant errors. Regular monitoring is essential to catch these errors before they become disruptive.

**Adaptability:** Business needs are constantly evolving. Your SSoT should be designed to adapt to these changing needs without requiring a complete overhaul. A well-maintained SSoT is agile and capable of accommodating new types of data, sources, and analytics tools.

**Regulatory Compliance:** Businesses often have to comply with industry regulations, which can change over time. Your SSoT should be flexible enough to adapt to new compliance requirements as they arise.

## Types of Maintenance Activities

- **Regular Audits:** Periodic audits are essential for maintaining an SSoT. These audits can help identify discrepancies in data, ensuring that all the information in the system remains accurate and up to date. A comprehensive checklist tailored to your business needs can serve as a guide during this crucial process.
- **Data Updates:** As your business evolves, so do your data needs. Incorporating new data sources or updating existing ones is an ongoing task. It's vital to have a system in place for version control to ensure that older, reliable data isn't accidentally overwritten or lost.
- **Governance Reviews:** Data governance isn't a 'set it and forget it' element; it requires periodic revisits to ensure its continued relevance. Whether due to personnel changes, new data types, or updated compliance regulations, your governance policies may need fine-tuning. Examples from the industry can serve as benchmarks for these regular governance audits.

## Overcoming Maintenance Challenges

The maintenance phase is not without its challenges. Data drift, outdated technologies, and departmental silos are just a few of the issues you may encounter. However, these challenges can often be mitigated with preemptive strategies like data monitoring, automation, and AI-based predictive maintenance tools.

## Importance of Teamwork in Maintenance

Maintenance of an SSoT is not the sole responsibility of the IT department. It requires a collaborative effort involving data analysts, compliance officers, and business unit leaders. Regular inter-departmental meetings and communications are key to ensuring everyone is on the same page regarding maintenance priorities.

## The Role of External Consultants

While internal teams play a significant role in maintaining an SSoT, there may be situations where external expertise is beneficial. Consultants who specialize in data management and governance can offer invaluable insights, especially when dealing with new types of data or compliance requirements. However, the use of external consultants should be judicious, keeping in mind budget constraints and the need for in-house expertise.

## Monitoring Tools and Dashboards

Software tools and dashboards can assist in the real-time monitoring of your SSoT. These tools can provide quick, actionable insights into the system's health, from data accuracy to user activity and compliance status. They can be especially useful for organizations that operate across multiple locations and time zones.



# The journey towards a resilient single source of truth

As we reach the conclusion of this white paper, it's essential to reiterate why establishing a robust SSoT is a critical endeavor for any organization involved in supply chain management. A well-implemented SSoT serves as the cornerstone for better decision-making, operational efficiency, and regulatory compliance. Integrating all data across your supply chain also sets the stage for implementing virtually all of the more advanced capabilities that give the most forward-looking organizations a major competitive advantage.

Throughout this white paper, we've delved into the seven vital components required to build a resilient SSoT—Data Audit, Tool Selection, Data Cleansing, Data Integration, Data Governance, Testing and Validation, and Ongoing Maintenance. Each component brings its unique challenges, but also immense opportunities for increased efficiency and adaptability.

If the task ahead appears overwhelming, remember that you don't have to go it alone. The value of expert consultation cannot be overstated. Consider enlisting the help of industry professionals or even implementing advanced tools and technologies designed to make the SSoT process more manageable and effective.

The establishment of a resilient single source of truth is more than just a technical project; it's a commitment to data integrity, operational excellence, and long-term business success. There's no better time than the present to undertake this journey. Take the steps outlined in this paper seriously, and begin your path towards a more efficient, data-driven future.

## About Algo

Algo uses technology to transform information into opportunity, breathing new life into our understanding of supply and demand, and giving retailers, suppliers, distributors, and manufacturers a chance to achieve more for their organizations. Our professional services assist our clients in accelerating and maximizing the effectiveness of each phase of their digital transformation journey, from infrastructure and data management to business process optimization and automation. Combining AI and machine learning with deep domain expertise, Algo's omnichannel SaaS platform helps suppliers and retailers plan, simulate, and execute more efficient supply chains through smart automation, actionable analytics, and digital twin technology.



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