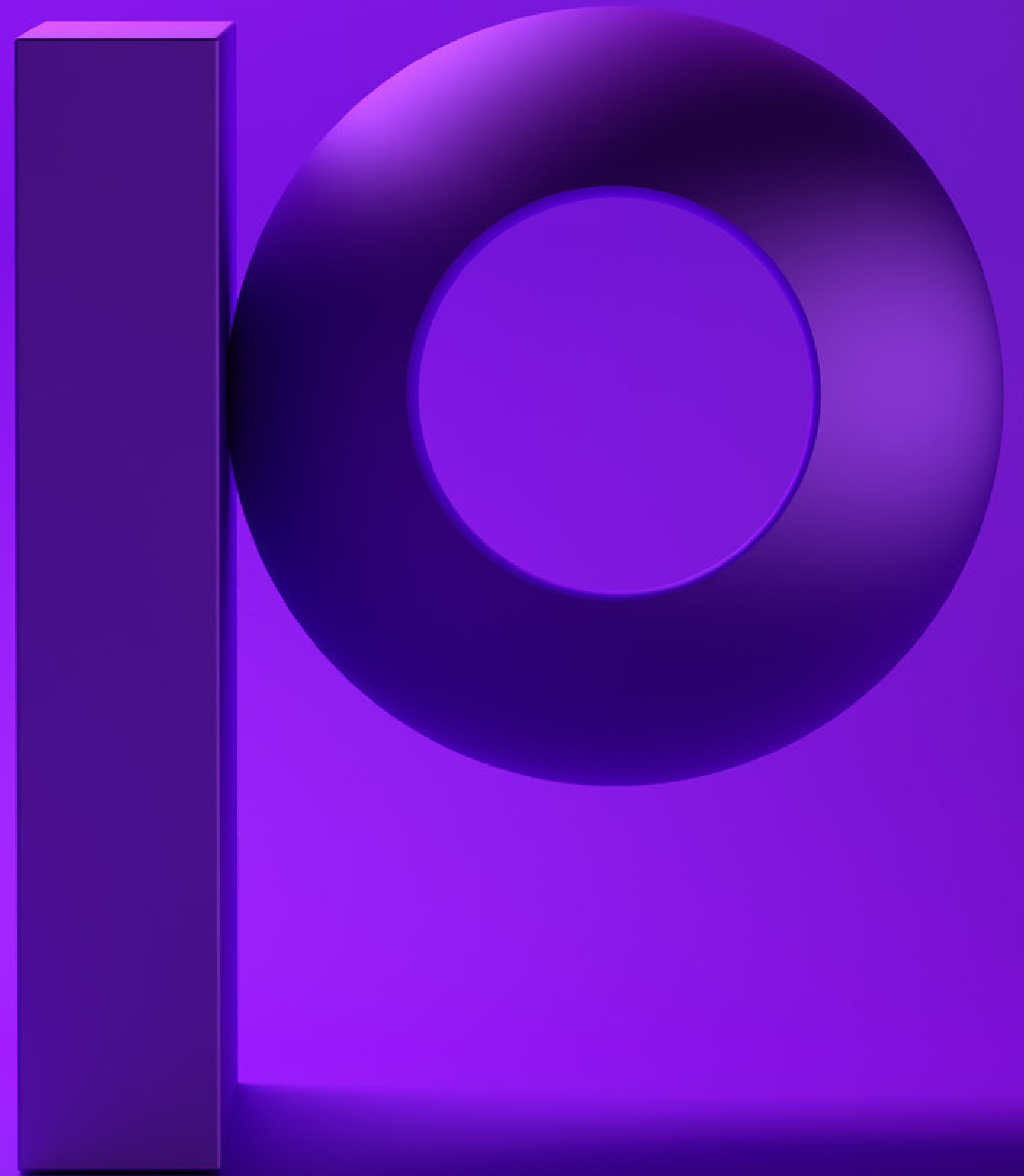precisely

4 Keys to Unlocking Data Quality with MDM

A guide to leveraging Master Data Management technology and tools that help organizations validate, learn, report, and strategize for improved data quality

Introduction

Businesses today face a mountain of content – one that grows taller and more formidable every day. Climbing that mountain can be an overwhelming task, yet the view from the top is worth it. That's because mastering high-quality data unlocks a whole new level of Business Intelligence (BI) for your organization and impacts a range of data analytics. It's also crucial for operational efficiencies and digital transformation.

Companies targeting data quality as a top priority are on the right track – however, ultimately how and where an enterprise manages its content can make or break its endeavors.

What's Your Content Profile?

Gartner tells us that the accelerating pace of digital business, paired with the rapid "increase in data volume, variety, and velocity," has created an atmosphere that's urgent for business and analytics leaders.[1] Furthermore, the cost of bad data is shockingly high. In the face of critical deadlines, many individuals make corrections themselves but do not follow up with the content creator or owner. These content inaccuracies can continue to propagate, leading to lost sales, potential fines, and dissatisfied customers. In this state of urgency, every business should take the time to evaluate its content profile: Are you proactive or reactive?

However, those who fail to adapt will fall into a reactive pattern – one that continually inhibits any efforts to transform or grow essential business initiatives.

The time has come to adopt and leverage the right data quality tools. In this e-book, we'll explore why creating a central content repository through Master Data Management (MDM) is an essential first step in your data quality journey. Then, we'll present the key elements for addressing data quality and discuss which features are crucial when evaluating solutions.

3 Trillion
Bad data costs the U.S. $3 trillion per year.[2]

"Poor data quality practices undermine digital initiatives, weaken organizations' competitive standing and sow customer distrust.[3]"

Gartner

The MDM Imperative

Today's shifting content landscape requires a modern approach to data quality. Analysts and content experts urge organizations to heed this advice:

Don't settle for siloed systems

Tools like enterprise resource planning (ERP) and customer relationship management (CRM) can be assets to an organization; however, these systems are not designed for robust enterprise-wide content management. In fact, organizations that rely solely on these limited systems typically find themselves operating in deeper silos.

Furthermore, content management tools that require separate connectors and integrators can slow your ability to respond and adapt in real time, and ultimately, degrade your content quality.

Because of these challenges, many businesses are strategically turning to Master Data Management with a multi-domain approach. A Multi-domain MDM solution with built-in data quality and data governance functionality allows organizations to operate with seamless integration and synchronization. With Multi-domain MDM, businesses can:

- Create a "golden record" for content entities by integrating databases and systems such as ERP, CRM, PLM, WMS, OMS and Data Warehouse systems, as well as hard-to-integrate legacy systems that are difficult to access and even more difficult to decommission.
- Dramatically enhance data quality with the ability to extract, load, publish, and syndicate accurate and consistent content to internal and external recipients.
- Improve the efficiencies and effectiveness of BI and enterprise processes that rely on high-quality, accurate information

Supplier Silos

A large amount of the 1WorldSync supplier community is treating GDSN content separately from e-commerce content. This segregation can cause inconsistent or even conflicting consumer experiences for the same attributes, and ultimately cause harm to a brand.

The 4 Keys to Data Quality

To dive even deeper, let's take a look at the four keys to unlocking data quality with MDM.

These points align with the EnterWorks Multi-domain MDM solution, which delivers the full range of data quality capabilities that an organization requires to ensure content is accurate, complete, consistent, and up-to-date.

1. Data Validation

Data Validation is a key function of MDM that helps ensure an organization is leveraging trusted, high-quality data to drive business processes and decisions.

When data is moved or merged from various sources and repositories, Data Validation tools help organizations convert data to conform to their own business rules and compliances. Validation processes help avoid corruption due to inconsistency regarding type or context.

> California paint shipping restrictions, plumbing standards, and GDSN are some examples where we've solved complex compliance requirements.

EnterWorks Capabilities

EnterWorks provides tools for data analysis, cleansing, matching, and reporting/monitoring capabilities. Our open platform supports the interoperability and coexistence with other third party ETL and data standardization tools. Combined, they provide a complete solution covering all data quality functions required for an enterprise to create and maintain a "golden record."

- **Profiling:** EnterWorks Data Profiling provides a basis for understanding data quality issues and gaps, and a foundation for correction and prevention. EnterWorks provides a graphical interface and reports for identifying key areas of data discrepancy. The solution's Data Profiling tools can also be used to determine the readiness to synchronize master data.

- **Validation/Compliance:** EnterWorks' robust validation engine ensures that any added data is accurate and compliant with any pre-defined set of validation rules. This includes any configured file types and attributes.

- **Completeness:** Users can define validation levels that represent, by channel, the "completeness" of data. This may include evaluating missing content and identifying work that needs to be done.

2. Data Matching

The reality for organizations today is that the same content appears over and over across various databases. What's more, this content is often named and organized in disparate ways.

MDM Data Matching capabilities help organizations ensure data integrity and compliance as information flows in from a variety of manual and inbound sources. Data Matching also improves operational efficiencies and time to launch/market by reducing time spent manually correcting data issues.

Through MDM Data Matching, organizations can compare content from a variety of sources, identify patterns, remove duplications via deduping, determine the "surviving records," retain the original elements not used for evaluation if needed, and merge all data into the master record. This matching and cleansing process ensures content is as useful and relevant as possible.

Data Matching is particularly effective in the digital intelligence world, where companies must ingest extensive data on a customer acquired from a multitude of touchpoints. For example, through Data Matching and complex algorithms based on defined business rules, organizations can establish unique identifiers and gain more visibility into who their customers are, where they shop, what channels they prefer, etc., and then connect those dots to provide more tailored marketing and grade/ benchmark a client's level as a prospect or loyal customer.

EnterWorks Capabilities

The EnterWorks solution's powerful matching engine and algorithms are designed to identify and remove duplicate records utilizing auto classification and auto normalization capabilities. Other key features include:

• Ability to easily configure critical data elements required for matching according to an organization's requirements.

• Easy to setup survivorship rules to persist accurate, up-to-date and most recent information resulting in the creation of a single record.

• Metadata is available on all model objects for governance and semantics-based automation to ensure consistency of meaning and objects across the organization.

• Data can be from contributing systems, their context or directly entered into the platform.

• The quality, health, or status of an organization's master data is presented to the user visually. Alerts can be generated and workflows can be initiated so that users are alerted proactively to address the issue.

• Data linking and hierarchies for referencing similar or correlating products, for example viewing a dress and an accessory in the same line, or tracking customer purchasing patterns to tailor cross-sell and up-sell recommendations.

3. Data Stewardship

Data Stewardship encompasses the accountability and responsibility for ensuring effective control and use of data assets – both as a function and through the job role of data stewards.

Stewardship involves:

- Documenting rules and standards
- Managing metadata
- Tackling data quality issues
- Setting and managing guidelines around data
- Tracking performance and regulatory compliance
- Reducing risk regarding data security and privacy
- Defining processes, policies, and roles
- And much more

An MDM solution provides the necessary support for Data Stewardship by equipping information stewards with the tools to monitor, analyze, and improve master data.

EnterWorks Capabilities

EnterWorks supports stewards with Data Stewardship policy and procedure enablement. The solution's tools help:

- Provide data stewards with a customizable workspace that displays tasks only assigned to them.

- Create data governance policies and workflows to automate the approval process.

- Take advantage of built-in algorithms for matching and linking, including survivorship rules.

- Monitor stewardship processes with advance logging and audit trails.

- Provide data stewards with the capability to update their data categories simultaneously yet independent of each other, helping the data to move closer to completeness for quicker publication and syndication.

4. Data Governance

Finally, one of the most significant benefits of Multi-domain MDM lies in the effectiveness of data governance. Moving data out of silos and into a central repository puts data governance and data quality in the spotlight for increased accuracy and transparency.

Through a multi-domain approach, governance councils are granted unparalleled visibility to data and information throughout the entire organization. Furthermore, the transparency Multi-domain MDM provides pulls individual business users into the process. Because users are empowered by and interacting with applications on a regular basis, they are increasingly involved in data stewardship.[4]

This level of governance puts companies in a position to transform data into insights that drive better decision making and lead to long-term, sustainable transformation.

EnterWorks Capabilities

EnterWorks includes holistic tools that allow an enterprise to improve the quality of the content it manages about products, customers, locations, and more throughout the content lifecycle.

• Proactively detect and capture bad data as it is entered into the MDM (real time or batch).

• Validate bad data automatically, in real time or batch, based on pre-built or customized business rules.

• Integrate data quality into data preparation processes through powerful workflow engine.

• Track data quality issues requiring manual corrections in real time – from the time they are discovered to when they are corrected.

• Easily see where data discrepancies or problems exist within data values through the use of the intuitive color-coded UI.

Content Quality Components

In addition to leveraging an MDM solution, businesses that rely on product data and content must work to validate, learn, track, and strategize to ensure continuous data quality. Product data and digital content are in extremely high demand, yet it can be challenging to acquire and manage this content consistently. Doing so requires the following crucial data quality components.

Content Usability

Content usability is becoming more critical now that GDSN data is being used to drive recipients' omnichannel solutions as well as suppliers' digital strategy.

Things to Think About

- Do you have a standard description nomenclature you try to follow?

- Do you regularly review your attributes for usability?

1WorldSync Services

- **Data & Image Capture:**
  Helps businesses deploy GS1-approved images to drive sales and improve perception.

- **Curation:** Quickly provide recipient and consumer-ready product content.

Content Accuracy

Content accuracy is critical in today's omnichannel environment. In fact, 38 percent of consumers say they would not purchase a product if they did not trust the product information displayed. Content inaccuracies can impact your brand reputation, and in some cases, even a consumer's health.

Things to Think About

- What validations are in place to check your content prior to sending to recipients or your website?

- Do you have a transparency program?

1WorldSync Services

- Packaging Audit: Validate the measurement and attribute accuracy on product packages.

- Assessment Services: Know the root cause of product content quality issues and develop an action plan in coordination with 1WorldSync.

Content Consistency

Ensuring content consistency across an organization, and to all recipients of your content, impacts the bottom line for better or worse. Content consistency processes help eliminate manual tasks in getting content to different recipients.

Things to Think About

- Do you regularly review the one-off attribute content requests to ensure you are providing the same content across all recipients?

1WorldSync Services

- Content Quality Diagnostic Report: Identify product content quality issues within the GDSN network and GTIN level:
  - Attribute Completeness
  - Description Accuracy
  - eCommerce
  - Readiness
  - Recipient Specific Requirements
  - Recipient Specific Guidance Image accuracy

Content Completeness

Content completeness reflects an organization's overall data governance strategy and how the company eliminates the manual processes in sending data.

Things to Think About

- Do you regularly look for additional attributes to send to your recipients?

- As your process has changed over the years, have you gone back to populate additional attribute information to your existing recipients?

1WorldSync Services

- GDSN Essentials: Bring teams up-to-speed on GS1 standards and help eliminate product content quality issues before they start.

EnterWorks Multi-Domain MDM

With the right Multi-domain MDM solution, an implementation can transform your business by:

- Driving consistency and accuracy in content
- Connecting the dots between domains to enable an unparalleled level of intelligence around products, customers, suppliers, etc.
- Reducing costs in operations and maintenance
- Adding a new level of data quality, governance, and stewardship across your enterprise

EnterWorks is becoming the first choice for organizations seeking a holistic Multi-domain MDM solution with advanced data quality and data governance capabilities, along with the following key solution differentiators:

Ease of Use

EnterWorks' intuitive user interface and portal technologies are designed to ensure high user adoption. Furthermore, the solution requires no coding. Business users can configure and manage the solution without IT involvement.

Configurability

We've honed the process of helping organizations implement a robust solution that's successful from the start yet can grow over time to meet evolving business needs. Allowing users at all levels to configure the solution contributes to the overall efficiency and satisfaction of our customers' workforce.

Leading Customer Satisfaction & Support

EnterWorks has 100 percent customer referenceability based on many years of delivering high-quality service and solutions. This extraordinary level of customer response has led analyst firms to report the highest marks of customer satisfaction for EnterWorks. In fact, tier one analysts report that EnterWorks consistently receives some of the highest customer satisfaction and loyalty scores in the industry.

Fastest Time to Value & Lowest TCO

EnterWorks offers the fastest time to value and lowest total cost of ownership in the industry. We are one of the only providers to offer fixed price/fixed time implementations to improve ROI and reduce risk. For our customers, this means a widely-adopted, best-in-class solution that is the most efficient in its implementation and maintenance. While some vendors take up to a year or more to implement, EnterWorks can go live in as little as 90 days.

The EnterWorks Advantage:

- Lowest total cost of ownership
- Fastest go-live times in the industry
- Fixed price/fixed time implementations
- Configurable
- Easy-to-use UI
- Unparalleled support
- Expertise in post-implementation services

Manage Your Content Quality Journey with 1WorldSync

Enabling more than 25,000 global brands in 60+ countries, 1WorldSync understands that no matter where you conduct business, trusted content and data quality are essential.

The 1WorldSync Professional Services team helps organizations improve product content quality and accuracy levels. We combine our GS1 standards knowledge, product content management technology experience, and business knowledge to address the challenges around content capture, content aggregation, content management, and content distribution, addressing challenges such as:

- Identifying data quality challenges that inhibit complete, consistent, usable, high-quality product content for internal and external use.

- Managing the demand of evolving cross-channel needs to aggregate and enrich product content in one centralized location.

- Integrating and processing product content in the most effective and efficient way possible.

- Delivering expected transparency into products and related attributes.

Learn more about EnterWorks

1WorldSync Professional Services

- Determine your content quality and how this positively impacts your business

- Leverage the content you already have in GDSN for e-commerce and omni-channel purposes

- Global transparency initiatives

- 1WorldSync Data Quality Services

- Data Governance Assessment and Best Practices

- Data Quality Diagnostic and Remedy Reports

- Data Quality Scorecard

- Data Collection and Verification

- Data Validation Services

1. Selvage, Mei Yang, and Saul Judah. How to Overcome the Top Four Data Quality Practice Challenges, March 10, 2017, Gartner Research.
2. Redman, Thomas C. Bad Data Costs the U.S. $3 Trillion Per Year, Harvard Business Review, September 22, 2016, https://hbr. org/2016/09/bad-data-costs-the-u-s-3-trillion-per-year.
3. How to Overcome the Top Four Data Quality Practice Challenges, Gartner.
4. Why Multi-Domain MDM Matters, DATAversity

precisely

About Precisely

Precisely is the global leader in data integrity, providing accuracy and consistency in data for 12,000 customers in more than 100 countries, including 99 of the Fortune 100. Precisely's data integration, data quality, data governance, location intelligence, and data enrichment products power better business decisions to create better outcomes.
Learn more at www.precisely.com.

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