28 July 2011

Magic Quadrant for Data Quality Tools

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Demand for data quality tools remains strong, with more focus on deployments that support information governance programs, master data management initiatives and application modernization efforts. Key trends include convergence with data integration tools and diversification of deployment models.

What You Need to Know

The data quality tools market continues to experience both substantial growth and volatility. The high-activity use cases of business intelligence (BI) and master data management (MDM) drive substantial demand, with information governance initiatives rapidly increasing in number. Large vendors in related markets continue to enter this space by acquiring smaller or specialist providers (for example, the recent acquisition of Datanomic by Oracle), and new vendors continue to emerge (in this iteration of the Magic Quadrant, new competitors such as Talend and Ataccama reflect this trend). The data quality tools market continues to converge with the related markets for data integration tools and MDM products, as market demand increasingly trends toward broader data management and governance capabilities spanning these disciplines. This is also reflected in the vendor landscape, with a rapidly growing number of providers competing in more than one of these currently discrete markets.

When evaluating offerings in this market, organizations must consider not only the breadth of functional capabilities (for example, data profiling, parsing, standardization, matching, monitoring and enrichment) relative to their requirements, but also the degree to which this functionality can be readily understood, managed and leveraged by business resources rather than IT. In addition, they should consider how readily it can be embedded into business process workflows or other technology-enabled programs or initiatives such as MDM and BI. In keeping with significant trends in data management, business roles such as data stewards will increasingly be responsible for managing the goals, rules, processes and metrics associated with data quality improvement initiatives. Other key considerations include the degree of integration of the range of functional capabilities into a single architecture and product, and the available deployment options (traditional on-premises software deployment, hosted solutions and software as a service [SaaS] or cloud-based). Finally, given the current economic and market conditions, buyers must deeply analyze non-technology characteristics, such as pricing models and total cost footprint, as well as the size, viability and partnerships of the vendors.

Use this Magic Quadrant to understand the data quality tools market and how Gartner rates the leading vendors and their packaged products in that market. Draw on this research to evaluate vendors based on a customized set of objective criteria. Gartner advises organizations against simply selecting vendors in the Leaders quadrant. All selections are buyer-specific, and vendors from the Challengers, Niche Players or Visionaries quadrants could be better matches for your requirements.

Magic Quadrant

Figure 1. Magic Quadrant for Data Quality Tools
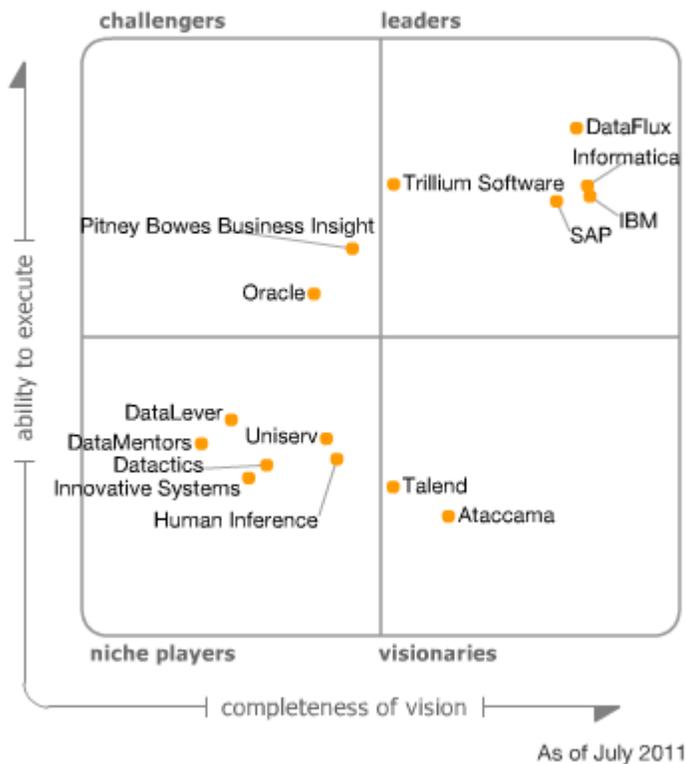
Source: Gartner (July 2011)

Market Overview

Organizations of all sizes and in all industries are recognizing the importance of high-quality data and the critical role of data quality in information governance and stewardship, driven by broader enterprise information management initiatives (see "Q&A: Information Governance" and "Gartner's Enterprise Information Management Framework Evolves to Meet Today's Business Demands"). As a result, their interest in the role of tools and technology for data quality improvement continues to grow. Fueled by a market of purpose-built, packaged tools for addressing various dimensions of the data quality discipline, data quality functionality is readily available from a variety of providers, large and small, stand-alone and increasingly embedded within other technology solutions. Data quality functionality is also being recognized as a fundamental component of offerings in many related

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software markets, such as data integration tools and MDM solutions. As a result, an increasing number of partnerships between MDM solution vendors, data integration tools vendors and data quality tools vendors are occurring. Several recent acquisitions (such as Oracle's purchase of Datanomic; see "Oracle Adds Datanomic to Its Disparate Mix of Data Quality Tools") highlight this ongoing trend. These developments are further recognition that data quality capabilities are at the core of many different data management-related disciplines.

The market for data quality tools was approximately $800 million in software-related revenue at the end of 2010, showing strong 12.6% growth over 2009. Financial services, government, communications and retail were vertical industries with substantial growth. These verticals appear to be highly active in 2011 as well, with healthcare also showing increased activity. Overall, the data quality tools market is forecast to experience a compound annual growth rate of 16% over the next five years (see "Forecast: Enterprise Software Markets, Worldwide, 2008-2015, 2Q11 Update"). This is a result of the significant attention that organizations are focusing on various data-related initiatives such as information governance, MDM, application modernization (involving significant data migration components), BI and analytics, as well as the more recent and rapidly growing interest in the topic within industries that are less mature from a data management perspective (such as government and other areas of the public sector). In addition, most organizations have significant investments in "below the radar" data quality activities — both manual and custom-coded — within the context of their data migration, MDM and application integration approaches. These scenarios represent opportunities for modernization with packaged data quality tools. While the past 12 months showed strong demand for specialized data quality capabilities, such as address standardization/validation and matching, providers with broader tool suites and the ability to address quality issues in various data domains continued to see increasing traction.

The vendors in the data quality tools market offer a broad range of functionality, from data quality analysis, profiling and monitoring to fundamental data cleansing operations such as parsing, standardization and matching, through to data enrichment. Much convergence and integration of technology has occurred, and today vendors offer more functionality within a smaller number of discrete products — most vendors have consolidated the bulk of their core data quality functionality (the fundamental elements of parsing, standardization, matching and cleansing) into a single data quality platform, with data profiling remaining the only major functional component commonly sold as a separate product. However, specialized add-on capabilities (such as global name and address support, application-specific knowledge bases and dashboards for data quality metrics) are commonplace, and even grow in number, as vendors adapt their packaging and pricing models to suit a wider range of potential buyers. In particular, more vendors are targeting business-side roles with their tools, adding functionality that is consumable by resources with less technical knowledge. This aligns with a significant shift in market demand, as more organizations seek to empower data stewards, business analysts and other stakeholders in the business to manage the rules by which the quality assurance of data is enacted.

New market entrants and long-standing competitors are delivering technology with a focus on data quality analysis, pervasive deployment of data quality controls, ongoing data quality monitoring and the flexibility to address a range of data subject areas. Functionality that can be used by non-technical roles outside IT is a primary area of development activity for many vendors. Market demand continues to shift toward an intention for multidomain deployments, as more organizations report that their data quality improvement efforts are no longer focused on a single data domain. They seek multidomain capable technology when they are evaluating options in the market. In a recent study of users of data quality tools carried out during the process of developing this

Magic Quadrant, approximately 40% indicated that they were actively working on data quality improvement in multiple data domains, most commonly customer/party and product/materials. While much of the activity is focused on master data in these domains, a significant percentage of organizations indicated that they are applying data quality tools to transactional data in these domains as well.

This market comprises a diverse set of vendors approaching the data quality tools opportunity from different directions and backgrounds. Large applications and infrastructure technology providers, such as IBM, Oracle and SAP, increasingly focus on data quality capabilities as complementary to various components of their portfolios. While they sell data quality tools in a stand-alone manner (as individual products), these tools are increasingly sold as part of a larger transaction involving related products (such as data integration tools and MDM solutions). IBM links its data quality tools to sales of DataStage for extraction, transformation and loading (ETL), MDM Server and other InfoSphere products. SAP provides data quality capabilities to complement ETL functionality in its Data Services offering. Oracle has just begun actively selling data quality technology (as a result of its acquisition of Silver Creek Systems) as a complementary add-on for MDM solutions, and as a stand-alone offering. Microsoft will be delivering new data quality functionality to customers as part of the next major release of the SQL Server database management system (DBMS) (code-named "Denali"), expected later in 2011 or early in 2012. Other large technology and service providers manage data-quality-focused divisions, such as SAS Institute (with its DataFlux subsidiary), Pitney Bowes (with its Business Insight division) and Harte-Hanks (with its Trillium Software division). Specialists focused on data management capabilities, such as Informatica and Talend, have added data quality capabilities to their portfolios, either via acquisitions or organic development. This reflects the increasing overlap between the markets for data integration tools and data quality tools. Finally, a large number of pure-play specialist data quality tools vendors, including Datactics, DataLever, DataMentors, Human Inference, Innovative Systems and Uniserv (and many others not positioned on the Magic Quadrant because they do not meet the inclusion criteria), vie for deals in stand-alone data quality tools. Almost all of these specialists are small (with annual revenue of less than $100 million), and may be vulnerable to the challenging economic conditions and mounting competitive pressure from the larger vendors.

Approaches to the pricing and licensing of data quality tools, as well as the delivery models through which they are deployed, continue to evolve. The last 12 months showed a continued increase in interest in freely downloadable and/or open-source tooling in the space. Human Inference's acquisition of open-source project DataCleaner is an example of a vendor's attempt to lower the entry barrier for smaller organizations. A Gartner study revealed that approximately 5% of organizations that performed competitive evaluations of tools in this market considered an open-source offering as one of the candidates (see "Who's Who in Open-Source Data Quality"). While representing relatively low activity, this is a substantial increase over one year earlier, when less than 2% of organizations evaluated open-source tools in this market. During the past year, the level of interest in and actual deployment of hosted, SaaS and cloud-based models also continued to grow. An increasing number of organizations are seeking "as a service" consumption of focused data quality capabilities such as address cleansing and data profiling. While demand for deployment of the full range of functionality found in contemporary data quality tool suites is not yet significant, the same Gartner study showed that approximately 21% of organizations active in this market were consuming some type of data quality capabilities through deployment models other than traditional on-premises software installation, up from about 15% the year before.

Market Definition/Description

The data quality tools market comprises vendors that offer stand-alone software products to address the core functional requirements of the data quality discipline:

- **Profiling.** The analysis of data to capture statistics (metadata) that provide insight into the quality of the data and help to identify data quality issues.

- **Parsing and standardization.** The decomposition of text fields into component parts and the formatting of values into consistent layouts based on industry standards, local standards (for example, postal authority standards for address data), user-defined business rules and knowledge bases of values and patterns.

- **Generalized "cleansing."** The modification of data values to meet domain restrictions, integrity constraints or other business rules that define when the quality of data is sufficient for the organization.

- **Matching.** Identifying, linking or merging related entries within or across sets of data.

- **Monitoring.** Deploying controls to ensure that data continues to conform to business rules that define data quality for the organization.

- **Enrichment.** Enhancing the value of internally held data by appending related attributes from external sources (for example, consumer demographic attributes or geographic descriptors).

In addition, these products provide a range of related functional capabilities that are not unique to this market but which are required to execute many of the data quality core functions, or for specific data quality applications:

- **Connectivity/adapters.** The ability to interact with a range of different data structure types.

- **Subject-area-specific support.** Standardization capabilities for specific data subject areas.

- **International support.** The relevance for data quality operations on a global basis.

- **Metadata management.** The ability to capture, reconcile and interoperate metadata related to the data quality process.

- **Configuration environment.** Capabilities for creating, managing and deploying data quality rules.

- **Operations and administration.** Facilities for supporting, managing and controlling data quality processes.

- **Workflow/data quality process support.** Processes and user interfaces for various data quality roles, such as data stewards.

- **Service enablement.** Service-oriented characteristics and support for service-oriented architecture (SOA) deployments.

The tools provided by vendors in this market are generally consumed by technology users for internal deployment in their IT infrastructure. However, off-premises solutions in the form of hosted data quality offerings and SaaS delivery models are continuing to evolve and grow in popularity.

Inclusion And Exclusion Criteria

For vendors to be included in the Magic Quadrant, they must meet the following criteria:

- They must offer stand-alone packaged software tools (not only embedded in, or dependent on, other products and services) that are positioned, marketed and sold specifically for general-purpose data quality applications.

- They must deliver functionality that addresses, at a minimum, profiling, parsing, standardization, cleansing and matching. Vendors that offer narrow functionality (for example, they only support address cleansing and validation, or only deal with matching) are excluded because they do not provide complete suites of data quality tools. Specifically, vendors must offer all of the following:

  - Profiling and visualization — they must provide packaged functionality for attribute-based analysis (for example, minimum, maximum, frequency distribution and so on) and dependency analysis (cross-table and cross-dataset analysis). Profiling results must be exposed in a either a tabular or graphical user interface delivered as part of the vendor's offering. Profiling results must be able to be stored and analyzed across time boundaries (trending).

  - Parsing — they must provide packaged routines for identifying and extracting components of textual strings, such as names, mailing addresses and other contact-related information. Parsing algorithms and rules must be applicable to a wide range of data types and domains, and must be configurable and extensible by the customer.

  - Matching — they must provide configurable matching rules or algorithms which enable users to customize their matching scenarios, audit the results, and tune the matching scenarios over time. The matching functionality must not be limited to specific data types and domains, nor limited to the number of attributes that can be considered in a matching scenario.

  - Standardization and cleansing — they must provide both packaged and extensible rules for handling syntax (formatting) and semantic (values) transformation of data to ensure conformance with business rules.

- They must support this functionality for data in more than one language and specific to more than one country.

- They must maintain an installed base of at least 75 production, maintenance/subscription-paying customers for the data quality product(s) meeting the above functional criteria.

- They must support broad-scale deployment via server-based runtime architectures that can support concurrent users and applications.

- They must provide at least 10 responsive customer references (during the customer survey executed as part of the Magic Quadrant research process) which demonstrate multidomain and/or multiproject use of the product(s) meeting the above functional criteria.

Vendors meeting the above criteria but limited to deployment in a single specific application environment, vertical industry or data domain are excluded from this market. A vendor that does not meet the above criteria may be

considered for inclusion if it is a new entrant that is demonstrably different from established vendors, and which represents a future direction for data quality tools.

There are many data quality tools vendors, but most do not meet the above criteria and are therefore not included in the Magic Quadrant. Many vendors provide products that deal with one very specific data quality problem, such as address cleansing and validation, but which cannot support other types of application, or lack the full breadth of functionality expected of today's data quality solutions. Others provide a range of functionality, but operate only in a single country or support only narrow, departmental implementations. Others may meet all the functional, deployment and geographic requirements but are at a very early stage in their "life span" and, therefore, have few, if any, production customers. The following vendors may be considered by Gartner clients alongside those appearing in the Magic Quadrant when deployment needs are aligned with their specific capabilities; or they are newer entrants beginning to gain visibility in the market but which lack a significant customer base:

- **Acme Data (formerly Stalworth)**, San Mateo, California, www.acmedata.net — offers a platform for cleansing and augmenting customer data (companies, contacts, international addresses, phone numbers, geocoding) and matching and merging customer records.

- **ActivePrime**, Mountain View, California, www.activeprime.com — provides on-demand data cleansing and deduplication for CRM applications, such as salesforce.com, Siebel or SalesLogix.

- **ACS Informatik**, Munich, Germany, www.qaddress.de — develops standardization, deduplication and matching/merging of addresses in CRM applications, such as those from SAP or Microsoft

- **Acuate**, London, U.K., www.acuate.com — provides products for the standardization, matching and merging of various data types, as well as data quality professional services.

- **AddressDoctor**, Maxdorf, Germany, www.addressdoctor.com — specializes in international address standardization and validation, supporting 240 countries and territories.

- **Alteryx**, Orange, California, www.alteryx.com — provides data cleansing in the context of BI applications with a geographic orientation.

- **Anchor Software**, Plano, Texas, www.anchorcomputersoftware.com — provides a range of data quality utilities supporting common customer list management operations such as file splitting, deduplication and suppression.

- **BackOffice Associates**, South Harwich, Massachusetts, www.boaweb.com — offers services and technology with a focus on migration and governance of master data within SAP and other packaged applications.

- **BCC Software** (a division of Bowe Bell + Howell), Rochester, New York, www.bccsoftware.com — provides a range of data quality utilities supporting common customer list management operations, such as address validation, change of address, deduplication and suppression.

- **Business Data Quality**, London, U.K., www.businessdataquality.com — offers products focused on data profiling (BDQ Analysis) and data quality monitoring (BDQ Monitor).

- **Caatoosee**, Leonberg, Germany, www.caatoosee.com — provides data cleansing for SAP applications through its DQaddress, and generic matching and deduplication with its DQworkbench.

- **Certica Solutions**, Wakefield, Massachusetts, www.certicasolutions.com — provides products that focus on validating data against predefined data quality rules.

- **Ciant**, Richardson, Texas, www.ciant.com — provides parsing, standardization and matching functionality for customer data, in support of sales and marketing analytics.

- **Clavis Technology**, Dublin, Ireland, www.clavistechnology.com — provides its Data Validation Services and Data Steward products, which support the deployment of data quality controls for preventing data entry errors, in a SaaS model.

- **Data8**, Ellesmere Port, U.K., www.data-8.co.uk — provides a free online service for data cleansing, postcode lookup and data validation.

- **DataQualityApps**, Untermeitingen, Germany, www.dataqualityapps.com — provides Windows-based tools for parsing, matching, deduplication and standardization of addresses.

- **Datasegmento**, Madrid, Spain, www.datasegmento.com — provides standardization, deduplication and geocoding for database marketing.

- **Datiris**, Lakewood, Colorado, www.datiris.com — provides various data profiling techniques for a range of data sources.

- **Datras**, Munich, Germany, www.datras.de — focuses on the German-speaking markets, providing profiling, standardization and monitoring capabilities.

- **Deyde Informática**, Las Matas, Madrid, Spain, www.deyde.es — specializes in name and address database optimization.

- **DQ Global**, Fareham, U.K., www.dqglobal.com — provides matching, deduplication and international address standardization and validation functionality.

- **d2b Intertational**, Bagsvaerd, Denmark, www.datatrim.com — develops DataTrim, a solution for deduplication and validation of salesforce.com data.

- **Eprentise**, Orlando, Florida, www.eprentise.com — offers a rule-based data quality engine for standardization, merging and deduplication.

- **FinScore**, Renens, Switzerland, www.finscore.com — offers technology for measuring data quality and presenting metrics in a dashboard form.

- **Global Data Excellence**, Geneve Le Lignon, Switzerland, www.globaldataexcellence.com — offers a data governance application for data quality and business rules.

- **helpIT Systems**, Surrey, U.K., www.helpit.com — provides data quality tools oriented toward customer matching, deduplication and suppression operations.

- **Hopewiser**, Altrincham, U.K., www.hopewiser.com — provides address cleansing, verification, deduplication and enrichment for mass mailing.

- **HumanFactorLabs**, Moscow, Russia, www.hflabs.ru/eng — provides customer data quality and customer data integration solutions and services in Russia.

- **Infogix**, Naperville, Illinois, www.infogix.com — provides controls-based technology for auditing and validating the integrity of data within and across systems.

- **Infoshare**, Kingston upon Thames, U.K., www.infoshare-is.com — provides data quality solutions for local and central government.

- **Infosolve Technologies**, Princeton, New Jersey, www.infosolvetech.com — provides open-source tools (with required service contract) that support profiling, standardization, matching and deduplication operations.

- **InQuera**, Migdal Tefen, Israel, www.inquera.com — specializes in technology for standardization, matching and deduplication, with a specific focus on product data.

- **Intelligent Search Technology**, Boston, Massachusetts, www.intelligentsearch.com — develops products for profiling, matching, deduplication and U.S. address correction.

- **Irion**, Turin, Italy, www.iriondq.com — offers data profiling, standardization, matching and analysis as part of a data quality governance framework.

- **iWay Software,** New York, New York, www.iwaysoftware.com — provides data profiling and data cleansing functionality via its iWay Data Profiler and iWay Data Quality Center products.

- **Ixsight**, Mumbai, India, www.ixsight.com — offers services for data quality audits, along with products for standardization and deduplication.

- **Kroll-Software**, Altdorf, Switzerland, www.kroll-software.ch — provides deduplication software, both as its packaged FuzzyDupes product as well as COM or .NET components for developers.

- **Melissa Data**, Rancho Santa Margarita, California, www.melissadata.com — supports standardization of names, addresses and phone numbers, and validation of addresses and phone numbers (both via on-premises software and hosted Web services).

- **Omikron Data Quality**, Pforzheim, Germany, global.omikron.net — provides products for standardization and deduplication of customer name and address data.

- **Posidex Technologies**, Andhra Pradesh, India, www.posidex.com — provides data profiling, parsing and standardization, identity resolution, cleansing and enhancement, and auditing and monitoring.

- **QAS** (a subsidiary of Experian), London, U.K., www.qas.com — offers global name and address standardization, validation and matching/deduplication functionality.

- **Runner Technologies**, Boca Raton, Florida, www.runnertechnologies.com — provides a development component for verifying and standardizing addresses for Oracle Database applications.

- **Satori Software**, Seattle, Washington, www.satorisoftware.com — provides name and address data cleansing as part of its MailRoom ToolKit address management tools.

- **Scarus**, Mannheim, Germany, www.scarus.de — offers the intelliCleaner suite of products, for parsing, deduplication and standardization functionality, with a focus on name and address data.

- **Sigma Data Services**, Alcorcón, Madrid, Spain, www.sigma-data.com — provides data profiling, normalization and deduplication of names, addresses and phone numbers.

- **Spad**, Paris, France, eng.spadsoft.com — offers a suite of data quality products for data profiling, monitoring and standardization.

- **SQL Power**, Toronto, Canada, www.sqlpower.ca — provides open-source tools supporting standardization, address validation and deduplication.

- **TIQ Solutions**, Leipzig, Germany, www.tiq-solutions.de — provides data profiling and data quality dashboards, with a focus on the banking, insurance and distribution verticals.

- **Tolerant Software**, Stuttgart, Germany, www.tolerant-software.de — provides address validation and sanctions list matching.

- **Utopia**, Mundelein, Illinois, www.utopiainc.com — offers services and technology for data quality analysis and data standardization, with a focus on product master data.

- **Veda Advantage**, Sydney, Australia, www.vedaadvantage.com — provides software to cleanse and update customer addresses, add phone numbers, merge databases into a single customer view and append segmentation data.

- **WinPure**, Reading, U.K., www.winpure.com — offers low-cost data cleansing, matching and data deduplication software on the Windows platform.

- **X88 Software**, Reading, U.K., www.x88.com — provides data profiling, cleansing and standardization, along with discovery and analysis tools, with its Pandora product.

- **3C Solutions**, Hattingen, Germany, www.3c-solutions.de — provides address deduplication for SuperOffice CRM.

Gartner will continue to monitor the status of these vendors for possible inclusion in future updates of the Magic Quadrant for data quality tools.

Vendors Added

- Ataccama.

- Oracle.

- Talend.

Vendors Dropped

Datanomic was removed from the Magic Quadrant due to its acquisition by Oracle.

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Evaluation Criteria

Ability to Execute

Gartner analysts evaluate technology providers on the quality and efficacy of the processes, systems, methods or procedures that enable IT providers' performance to be competitive, efficient and effective, and to positively affect revenue, retention and reputation. Ultimately, technology providers are judged on their ability to capitalize on their vision, and their success in doing so.

We evaluate vendors' ability to execute in the data quality tools market by using the following criteria:

- **Product/Service.** How well the vendor supports the range of data quality functionality required by the market, the manner (architecture) in which this functionality is delivered, and the overall usability of the tools. Product capabilities are critical to the success of data quality tool deployments and, therefore, receive a high weighting.

- **Overall Viability.** The vendor's financial strength (as assessed by revenue growth, profitability and cash flow) and the strength and stability of its people and organizational structure. In this iteration of the Magic Quadrant we retain a high weighting for this criterion to reflect buyers' ongoing focus on vendor viability.

- **Sales Execution/Pricing.** The effectiveness of the vendor's pricing model in light of current customer demand trends and spending patterns, and the effectiveness of its direct and indirect sales channels.

- **Market Responsiveness and Track Record.** The degree to which the vendor has demonstrated the ability to respond successfully to market demand for data quality capabilities over an extended period.

- **Marketing Execution.** The overall effectiveness of the vendor's marketing efforts and the degree to which it has generated "mind share," and the magnitude of market share the vendor has achieved as a result. Given the increasingly competitive nature of this market and the constant entry of new vendors, both large and small, we retain a high weighting for this criterion.

- **Customer Experience.** The level of satisfaction expressed by customers regarding the vendor's product support, professional services and overall relationship with the vendor, as well as the customers' perceptions of the value of the vendor's data quality tools relative to costs and expectations. In this iteration of the Magic Quadrant we have again retained a high weighting for this criterion to reflect the substantially strong scrutiny that buyers are placing on these considerations as they seek optimal value for their investments. Analysis and rating of vendors against this criterion are driven directly by the results of the customer survey executed as part of the Magic Quadrant process.

Table 1 gives our weightings for the Ability to Execute evaluation criteria.

Table 1. Ability to Execute Evaluation Criteria

Evaluation Criteria	Weighting
Product/Service	high
Overall Viability (Business Unit, Financial, Strategy, Organization)	high
Sales Execution/Pricing	standard
Market Responsiveness and Track Record	standard
Marketing Execution	high
Customer Experience	high
Operations	no rating

Source: Gartner (July 2011)

Completeness Of Vision

Gartner analysts evaluate technology providers on their ability to convincingly articulate logical statements about current and future market direction, innovation, customer needs and competitive forces, as well as how they map to the Gartner position. Ultimately, technology providers are assessed on their understanding of the ways that market forces can be exploited to create opportunities.

We assess vendors' completeness of vision for the data quality tools market by using the following criteria:

- **Market Understanding.** The degree to which the vendor leads the market in new directions (technology, product, services or otherwise), and its ability to adapt to significant market changes and disruptions. In this criterion, we also specifically consider the degree to which vendors are aligned with the significant trend of convergence with other data management-related markets — specifically, the markets of data integration tools and MDM solutions. Given the dynamic nature of this market, this item receives a high weighting.

- **Marketing Strategy.** The degree to which the vendor's marketing approach aligns with and/or exploits emerging trends and the overall direction of the market.

- **Sales Strategy.** The alignment of the vendor's sales model with the way that customers' preferred buying approaches will evolve over time.

- **Offering (Product) Strategy.** The degree to which the vendor's product road map reflects demand trends in the market, fills current gaps or weaknesses, and includes developments which create competitive differentiation and increased value for customers. We also consider the breadth of the vendor's strategy regarding a range of delivery models for products and services, from traditional on-premises deployment to SaaS and cloud-based models. With the rapid evolution of both technology and deployment models in this market, we give a high weighting to this criterion.

- **Business Model.** The overall approach the vendor takes to execute its strategy for the data quality tools market, including diversity of delivery models, packaging and pricing options, and partnership types (joint marketing, resell, OEM, system integration/implementation and so on).

- **Vertical/Industry Strategy.** The level of emphasis the vendor places on vertical solutions, and the vendor's depth of vertical expertise. Given the broad cross-industry nature of the data quality discipline, vertical strategies are somewhat less critical, so this item receives a low weighting.

- **Innovation.** The extent to which the vendor demonstrates creative energy in the form of thought-leading and differentiating ideas and product plans which have the potential to significantly extend or even reshape the market in a way that adds real value for customers. Given buyers' desire to take substantial leaps forward in their information management competency, and the strong interest in extending data quality capabilities in support of broader information governance goals, we elevate this criterion to a high weighting.

- **Geographic Strategy.** An assessment of the strength of the vendor's strategy for expanding its reach into markets beyond its home region/country, in the face of truly global demand for data quality capabilities and know-how.

Table 2 gives our weightings for the Completeness of Vision evaluation criteria.

Table 2. Completeness of Vision Evaluation Criteria

Evaluation Criteria	Weighting
Market Understanding	high
Marketing Strategy	standard
Sales Strategy	standard
Offering (Product) Strategy	high
Business Model	low
Vertical/Industry Strategy	low
Innovation	high
Geographic Strategy	standard

Source: Gartner (July 2011)

Leaders

Leaders in the market demonstrate strength across a complete range of data quality functionality, including profiling, parsing, standardization, matching, validation and enrichment. They exhibit a clear understanding and vision of where the market is headed, including recognition of non-customer data quality issues and the delivery

of enterprise-level data quality implementations. Leaders have an established market presence, significant size and a multinational presence (directly or as a result of a parent company).

Challengers

Challengers in the market provide strong product capabilities but may not have the same breadth of offering as Leaders. For example, they may lack several of the functional capabilities of a complete data quality solution. Challengers have an established presence, credibility and viability, but may demonstrate strength only in a specific domain (for example, only customer name and address cleansing), and/or may not demonstrate a significant degree of thought leadership and innovation.

Visionaries

Visionaries in the market demonstrate a strong understanding of current and future market trends and directions, such as the importance of ongoing monitoring of data quality, the engagement of business subject matter experts and the delivery of data quality services. They exhibit capabilities aligned with these trends, but may lack the market presence, brand recognition, customer base and resources of larger vendors.

Niche Players

Niche Players often have limited breadth of functional capabilities and may lack strength in rapidly evolving functional areas such as data profiling and international support. In addition, they may focus solely on a specific market segment (such as midsize businesses), limited geographic areas or a single domain (such as customer data), rather than positioning themselves toward broader use. Niche Players may have good functional breadth but may have an early-stage presence in the market, with a small customer base and limited resources. Niche Players that specialize in a particular geographic area or data domain may have very strong offerings for their chosen focus area and deliver substantial value for their customers in that segment.

Vendor Strengths and Cautions

Ataccama

Stamford, Connecticut and Prague, Czech Republic, www.ataccama.com

Products: DQ Analyzer, Data Quality Center, DQ Issue Tracker

Customer base: estimated at 100

Strengths

- Atacama is a new entrant on this year's Magic Quadrant. Market watchers were able to track the company for a few years, but it has only recently ramped up its marketing efforts and become a more active and visible contender in the data quality tools market. Ataccama provides a broad data quality toolset, from the

free DQ Analyzer profiling tool to the innovative DQ Issue Tracker. Most of Ataccama's solutions are deployed on-premises, but midsize enterprises have also used the software in a SaaS model. It is even available through Google Refine, but this segment is still not showing much uptake.

- Although Ataccama has its development roots in the Czech Republic, as a subsidiary of Toronto-based Adastra Group the vendor has already obtained a solid customer base in Europe and North America, with the most significant deals in the banking, insurance and government sectors. Despite being a young company, Ataccama has already signed up a good number of technology and system integration partners, such as CSC, Teradata and open-source data integration provider CloverETL/Javelin.

- Through the OEM agreement with iWay Software, the data infrastructure subsidiary of New York-based BI platform vendor Information Builders, Ataccama has established a formidable channel, which provides good reach into large and midsize organizations worldwide. More than 40% of Ataccama's revenue comes from the OEM channel. The Information Builders partnership also gives Ataccama access to the iWay integration platform, with its extensive connectivity layer.

Cautions

- Ataccama's user interface does not appear as intuitive as those of its competitors. With the notable exception of the DQ Issue Tracker, the Eclipse-based front ends of the DQ Analyzer and the DQ Center look rather technical, and typically less suited for business users such as data stewards.

- Despite its marketing efforts, Ataccama is not a household name in the data quality market, not even in Europe. Most of the vendor's reference customers are Czech or Slovak companies, which indicates limited sales traction throughout the larger economies in Western Europe. And while the iWay relationship opens doors, it is not generating large amounts of revenue from the channel. In competitive situations vis-a-vis its big brand competitors, Ataccama is rarely mentioned.

- Reference customers report a garden variety of issues with the Ataccama product, from simple bugs, limited worldwide coverage for standardization and complicated use of the knowledgebase to limited availability of skills.

Datactics

Belfast, U.K., www.datactics.com

Products: Datactics v5, Data Quality Manager

Customer base: 115

Strengths

- Datactics is a data quality vendor that operates primarily in Europe. It also operates a sales office in the U.S. and continues to maintain a number of value-added resellers (VARs) in the Americas and Asia. Its software is used in a range of subject areas, beyond the typical customer data validation scenarios, and many references appreciate the ease of use of the Datactics platform, particularly for non-technical staff. The performance of the platform was also rated highly by reference customers.

- The company's flagship product, Datactics v5, is fully 64-bit and Unicode-enabled, supports most European languages, runs on many platforms, and supplies broad capabilities in profiling, matching/merging, cleansing and monitoring. Data quality scorecards can be constructed to monitor quality-related metrics. Most of Datactics' reference customers are small and midsize businesses in a mix of vertical industries, including the public sector, utilities and financial services. Reference customers use the Datactics product mostly in MDM and system migrations, and embedded into business applications. Going forward, Datatactics plans improvements for data governance and vertical data quality dashboards.

- Datactics has moved its sales strategy toward a partner model, with the vast majority of its revenue now coming from the system integrator (SI) and consultancy channel. While most of Datactics' deployments are on-premises, the vendor is also offering hosted, cloud-based solutions. Datactics' professional services and support continues to receive positive remarks from the reference customers surveyed.

Cautions

- Datactics is increasingly moving out of the data quality market spotlight by relying on its few system integration partners to drive revenue. It appears as if Datactics is using its funds solely to enhance products and much less on establishing its own market presence through expanded sales and marketing efforts. While this is an acceptable strategy, it relies heavily on the partners' degree of interest and competency in marketing Datactics' capabilities. Due to Datactics' and its partners' limited marketing efforts, the company is not a household name for most organizations looking for a provider of data quality tools. Datactics rarely shows up in competitive evaluations, both in the reference survey and Gartner's client inquiries.

- Datactics acknowledges the major market trend of converging data quality with data integration, but to address this demand it relies on larger technology partners that also compete in the data quality tools market. Also, while the market leaders are investing in purpose-built offerings for data stewardship and regulatory compliance, Datactics is not yet offering packaged solutions in those areas and relies on its system integration partners to build custom solutions.

- Datactics' attempts to break out of its core market in the U.K. are at an early stage. While the vendor reports a few successful sales in Australia and the U.S., the relatively new VAR channel in markets such as Brazil, Hong Kong and Turkey shows no traction, and all major sales or partnering opportunities remain mostly in English-speaking countries. Building a relationship with partners that attain a global presence is warranted, so that Datactics is being introduced to new markets and new customers.

DataFlux

Cary, North Carolina, www.dataflux.com

Products: DataFlux Data Management Platform

Customer base: estimated at 2,400

Strengths

- DataFlux's capabilities include profiling, matching, cleansing and monitoring, all delivered via a unified platform. The "single product architecture" approach to delivering this functionality, and very strong ease-of-

use characteristics, are major drivers for the vendor's success in this market. Customers routinely cite these attributes as their main reasons for selecting DataFlux, and indicate that they are readily able to engage both business-side and IT resources in working with the tools. In addition, cohesiveness and overall ease of use contribute to deployment times that are shorter than the market average.

- DataFlux deployments support a variety of initiative types, including BI/data warehousing, MDM, data migrations and information governance programs. In addition, the tools are routinely applied to a wider range of different data types than many of its competitors. The breadth of deployment scenarios, coupled with DataFlux's strategic direction to continue expansion of its Data Management Platform more deeply into the related areas of data integration and MDM, aligns well with trends in market demand, where data quality capabilities are foundational to an organization's information infrastructure. In the near term, DataFlux's product and business road map call for enhancements that will tighten the integration and synergy across all functional aspects of the platform, increase support for business stakeholders and other non-technical roles, and expand partnerships and strategic services capabilities (as evidenced by the recent acquisition of Baseline Consulting).

- With the strong financial backing and global market presence of parent company SAS, DataFlux has been able to demonstrate above average market growth over the past two years. SAS continues to be a strong channel for sales of the DataFlux technology. Reference customers report a positive experience with the vendor's product support and professional services, as well as general satisfaction with their relationship with DataFlux overall.

Cautions

- While the DataFlux Data Management Platform is well aligned with market demand trends, the product is relatively new and only a minority of customers have migrated from earlier versions of the DataFlux technology (dfPower Studio and Integration Server). Initially, DataFlux has focused Data Management Platform sales activity toward new customers, allowing existing customers to migrate as they required additional functionality and performance. The vendor will need to rapidly establish and publicize proof points of successful Data Management Platform implementations, and provide incentives for customers to adopt the new version. The price point of the DataFlux technology is increasingly cited by customers and prospects as a barrier to selecting the Data Management Platform.

- Performance and scalability of the DataFlux technology continue to be cited as weaknesses by reference customers working in environments where extremely high-volume batch processing of data is required. Reference customers on average rate the vendor's performance below that of the other market leaders and various other competitors. However, most of these customers are not running the Data Management Platform version of the technology, where DataFlux has applied the majority of its performance enhancements. Customers working with more modest scalability requirements generally express satisfaction with performance.

- Compared with some of its competitors, DataFlux has been only minimally active in the area of alternative delivery models for data quality capabilities. SaaS is in limited use within the DataFlux customer base at present, and the vendor has not delivered cloud-based capabilities for data quality. DataFlux indicates that its product road map includes releases in 4Q11 and 1Q12 which will provide cloud-based deployment options for customers. While they still constitute a minority of activity in the overall market, DataFlux needs to develop capabilities in these areas, as interest in data quality SaaS solutions is growing, and data quality

capabilities will be an important component of data management platform-as-a-service offerings delivered via cloud computing in the future.

DataLever

Boulder, Colorado, www.datalever.com

Products: DataLever Enterprise

Customer base: estimated at 150

Strengths

- DataLever provides technology for the core requirements of data quality, with integrated data-profiling and data-cleansing functionality in a single product (DataLever Enterprise). All operations can be readily deployed in both batch and real-time modes. The vendor has focused on delivering the fundamental capabilities (such as parsing, standardization and cleansing, and, more recently, Unicode support) required in virtually all data quality projects, rather than attempting to expand the scope of the data quality discipline or innovate in new functional areas.

- DataLever takes a domain-agnostic view of data quality issues, enabling its technology to be applied in various data domains, including customer and product. While most of its installed base applies DataLever's technology to customer data quality issues, customer references reflect a healthy percentage of implementations in other areas — in a recent survey of reference customers, 54% were also applying the technology to location data, and 31% to product/materials data. In addition, the customer base is active in applying the technology to a range of use cases, from BI and data warehousing to data migrations, MDM and others.

- Customers cite overall ease of use and flexibility compared with alternative offerings as the main selling points of DataLever's products. The attractive pricing of DataLever's products is well suited to the current economic and market conditions. Strong performance in scenarios with large data volumes, as demonstrated by customer references, is helping DataLever to succeed in competitive situations. This is the value proposition which DataLever primarily stresses in its sales and marketing activities. In addition, the relatively low complexity of the product means that it can be used by business subject matter experts, as well as IT personnel. In addition, the ability to support bulk-batch-oriented data flow (ETL), including data quality operations, helps to position DataLever for the growing demand for converged capabilities across these markets.

Cautions

- As one of the smaller and privately held providers in the market, DataLever supports a small customer base, with a very limited presence outside North America. The vendor has extremely limited mind share in the market, as evidenced by a recent survey of over 270 data quality tools buyers, in which less than 1% indicated that they had evaluated DataLever against alternatives. While even the vendors with the strongest mind share appeared in no more than 15% to 20% of competitive evaluations, DataLever needs to increase awareness in order to achieve substantial growth. However, organizations choosing to deploy DataLever reflect an increasingly diverse mix of sizes, with more large enterprises than in the past. These larger

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organizations will certainly push DataLever to improve in areas where it is weak — for example, larger customers indicate that product support, documentation and the stability of version upgrades could be enhanced.

- To date, DataLever has focused solely on the on-premises deployment of its software, although the vendor states that it is developing cloud-based capabilities that are expected in future releases. The vendor does not articulate a clear product road map with detailed functional enhancements and solid milestones, detracting from its ability to present a strong vision and understanding of the market, and creating concerns for potential buyers. DataLever has indicated that version 6.0 of DataLever Enterprise, delivery of which is expected by the end of 2011, will include tighter operating system security integration and functionality focused on business (non-IT) users.

- The vendor's lack of significant partnerships with SIs and complementary software vendors will limit its competitive strength — this represents a substantial challenge in current market conditions, where buyers perceive greater risk in smaller vendors. This is reflected in prospect feedback, in which concerns about market presence, lack of skills availability, and viability/financial strength were seen as the most common reasons for disqualifying DataLever from consideration. In addition, with the ongoing convergence of the data quality tools market with related markets such as MDM solutions and application integration middleware, the relatively narrow span of DataLever's portfolio could be perceived as a challenge.

DataMentors

Wesley Chapel, Florida, www.datamentors.com

Products: DataFuse, Validata, NetEffect

Customer base: estimated at 100

Strengths

- DataMentors specializes in customer data quality applications, providing matching, linking, standardization and cleansing operations via its DataFuse product (and the real-time version called NetEffect), and data profiling capabilities via Validata. Its partnership with smartFocus enables the vendor to offer campaign management, analytics and mapping capabilities (branded as DataMentors' PinPoint). The vendor's roots are in database marketing, with the management team having been involved in large-scale applications of this type for more than 20 years. DataMentors positions itself as a full-service provider of data quality and marketing analytics capabilities, mostly for B2C businesses.

- Customer references are predominantly in the financial services vertical, although the vendor is increasing its focus on the healthcare, hospitality and publishing industries. Customers cite accuracy of matching, ease of use and attractive pricing relative to some of the more prominent vendors in the market as key functional strengths. Coupled with a perception of the vendor's deep industry experience (cited by reference customers as among the top three buying criteria), these are the main reasons for their selection of DataMentors' technology. The delivery of DataFuse v6.0, originally planned for 1Q11, but now expected by the end of the year, is the most significant milestone in the product road map. This version will focus largely on enterprise-scale capabilities such as multiserver deployments, support of additional platforms (Unix, for example), enhanced security models, and cloud-based delivery.

- The vendor's customer base reflects a higher percentage of SaaS implementations (approximately 60% of a recent set of reference customers) than is seen for any other vendor in this market. DataMentors estimates that more than half of its customers are using its technology in this manner, and that nearly all new customers are deploying the technology this way. This positions DataMentors well in the face of growing demand for SaaS and cloud-based deployment options. DataMentors states that it has added staff over the last year, and has experienced revenue growth well above the market average.

Cautions

- With a small installed base and limited resources for marketing, DataMentors will continue to be challenged to gain mind share in a market increasingly populated by much larger providers. This was apparent in a cross-industry sample of over 270 data quality tools buyers, in which only 1% considered DataMentors in competitive evaluations. In addition, the vendor rarely appears in inquiries from Gartner clients. While the vendor's attractive cost model and ease of use are well suited to market demand, as one of the smallest competitors in this market it will face challenges as the current economic conditions increase buyers' desire for large providers with extensive financial resources. While DataMentors continues to focus on enhancing products, it must increase investment to grow visibility and market penetration.

- DataMentors has chosen to focus primarily on customer data quality issues and satisfying business users' demand for the rapid deployment of solutions. While these areas represent an opportunity at present, the narrower focus relative to larger competitors could place DataMentors at a competitive disadvantage. The vendor's customer references reflect an increasing number of examples where the technology is used in product data quality and financial data quality applications, and the vendor acknowledges growing demand in these areas. In addition, with the data quality tools market rapidly on the path to convergence with the related markets of data integration tools and MDM solutions, DataMentors may face challenges as buyers focus more heavily on broader data management infrastructure.

- From a product functionality perspective, DataMentors has weaknesses in runtime platform support (Windows is the only deployment option, although DataFuse can interact with applications and data sources on other platforms), and the product road map largely consists of technical enhancements, lacking vision for developing areas of the data quality discipline such as data quality visualization, data stewardship and data quality policy management. The vendor plans to add additional platform support with v6.0. Customer references reflect limited usage in real-time scenarios and exhibit relatively few examples of multiproject or enterprisewide deployments compared with the company's major competitors.

Human Inference

Arnhem, The Netherlands, www.humaninference.com

Products: HIquality Suite, HIquality Name Worldwide, HIquality Identify, HIquality Data Improver, DataCleaner

Customer base: estimated at 280

Strengths

- Human Inference provides data quality solutions to customers primarily in the European financial services industry, but also serves public sector and telecommunications clients. Human Inference is a well known

brand for data quality software in Europe, particularly in its core markets in Benelux and Germany, and the vendor has signed up distributors in Italy, France, Denmark and Malaysia. In February 2011, Human Inference acquired the Danish eobjects.org project, which provides DataCleaner, an open-source data profiling tool, to attract small businesses with a free data profiling tool so that it can sell them its own commercial tools later on when their needs grow.

- The components of the HIquality product set include technology for inspection and profiling, name and address cleansing, matching, merging and enrichment. One of Human Inference's key differentiators, described as a major strength by reference customers, is that it maintains reference datasets, which are available for select countries and which serve as knowledge bases for names, addresses, cultures and other specific meanings from a variety of contexts. Human Inference has started to focus on provisioning data quality through SaaS, which makes HIquality more attractive as an embedded component in business processes.

- A large portion of Human Inference's customer base has gone beyond batch processing; now, real-time matching, address validation and cleansing are the top use cases reported by reference customers. Human Inference's reference customers show a nice diversity of data quality use cases, from operational applications and information governance to MDM, BI and data migration.

Cautions

- Despite the availability of "update packs" for users of prior versions of the software, a continuously high ratio of reference customers had not upgraded to the latest available release of HIquality, due to migration difficulties and increases in licensing costs. A large number of reference customers continue to struggle with finding skilled service personnel to help with the reportedly difficult product configuration. However, while some customers that have moved to the latest version report improvements in ease of use, the general sentiment about usability is unsatisfactory. The other main critique is the overall software pricing, which is perceived as very high.

- Human Inference's rate of growth is significantly lower than the market average, and it does not show the financial stability of its competitors. While the list of Human Inference's channel partners is increasing, the channel does not yet show a lot of traction, as there is hardly any revenue coming from it. With few exceptions, the SI partners engage only in joint marketing; local reseller partners are rather small and unknown providers, as the vendor continues to rely on its own direct sales channel. While Human Inference still has a stronghold in its core geography, particularly the Benelux countries, it will experience greater competitive pressure from the large infrastructure vendors.

- While the market leaders continue to expand their focus on data quality use cases beyond the customer domain, Human Inference deployments seem to remain in this area, according to reference customers. Also, the DataCleaner acquisition has all but gone unnoticed in the commercial world. As no marketing efforts were put behind the new profiling tool, the expected buzz did not happen.

IBM

Armonk, New York, U.S., www.ibm.com

Products: Information Analyzer, QualityStage, Discovery

Customer base: estimated at 2,000

Strengths

- IBM's Information Analyzer (discovery, profiling and analysis) and QualityStage (parsing, standardization and sophisticated probabilistic matching) continue to be adopted as enterprisewide data quality standards, and are being used in multiple projects in customer organizations. During the past year, adoption of Discovery (the former Exeros technology) has increased substantially, augmenting IBM's data profiling capabilities with richer cross-table/database dependency analysis. The tools are applied across a range of data domains, for a variety of use cases (from BI to data migrations to MDM), and by teams of varying size. With these product capabilities and the range of implementation experiences, IBM is aligned well with current key demand trends in the market.

- As part of the InfoSphere product family, IBM positions its data quality capabilities for stand-alone deployment, as well as in support of and synergistic with other InfoSphere capabilities, such as its data integration tooling and MDM offerings. The combination of broad data management functionality and the significant mind share, market presence and scale of IBM in the data management markets and beyond contribute to the vendor's strong ability to execute in this market. IBM continues to drive interest in its data quality tools by linking them to its thought leadership and activities in the information governance discipline (through vehicles such as the IBM-led Information Governance Council) — a topic which is a high priority for many large enterprises.

- Users of IBM's data quality tools cite strong integration with other InfoSphere technologies (predominantly DataStage for ETL) and sophisticated matching capabilities as the main strengths of the offering. Reference customers generally report high satisfaction with the scalability and performance of IBM's data quality tools, and moderate satisfaction with overall ease of use. IBM's recent 8.5 release of the technology is intended to further address prior issues with deployment complexity, although most customers have yet to adopt this version. Key enhancements planned within the IBM product road map include richer business rules management, improved data quality metrics capabilities, and the delivery of a more comprehensive bundling of information governance functionality.

Cautions

- While IBM has improved the customer deployment experience with its recent releases, customers continue to perceive complexity in deployment, ongoing administration and upgrades as challenges. In addition, the average time till production deployment with IBM's tools tends to be substantially longer than the market average. This type of feedback is generally shared by reference customers running version 8.1 or earlier of the technology. Early customers of version 8.5 indicate an improved experience with software installation, although feedback on overall usability and time to value (beyond installation) is still limited. With demand in the market shifting toward engaging less technical individuals outside the IT organization to participate in developing data quality rules and processes, IBM will need to continue the trend toward reducing complexity in its tools. In addition, the vendor needs to continue to improve the consistency and quality of product support and professional services. While not routinely cited as major areas of concern, reference customers rate IBM lower on these points than most of its competitors.

- The cost model associated with IBM's products in this market is routinely noted as a challenge by customers. In addition to the increased cost of implementation due to complexity, the multiple products and

the processor value unit pricing model mean that implementing IBM's data quality tools requires a significant investment from a software licensing perspective. While customers perceive a decent correlation of price to value in IBM's tools in this market, reference customers in small and midsize enterprises, as well as large organizations that are budget-constrained, indicate that price points can be prohibitive. Among survey participants that had included IBM in competitive evaluations of multiple vendors' offerings, pricing model, price points and perceived total cost of ownership were the top reasons for disqualifying IBM from further consideration. IBM is attempting to mitigate these challenges with new pricing options, such as the Workgroup Edition pricing, which has been available since April 2011.

- Although SaaS and cloud-based deployments of data quality capabilities still constitute a small component of overall market demand (approximately 11% of data quality tools deployments), interest in them is growing. To date, IBM has shown minimal activity and traction in this area within its data quality tools customer base, although its data quality tools have been deployed on Amazon's public cloud infrastructure. The vendor plans future delivery of an IBM-branded cloud offering for various InfoSphere technologies, including data quality.

Informatica

Redwood City, California, www.informatica.com

Products: Data Explorer, Data Quality

Customer base: estimated at 1,200

Strengths

- Informatica has established itself as a strong provider of comprehensive data quality solutions in the market, with strong growth figures, particularly in EMEA and Asia/Pacific. The vendor has added a significant number of large data quality deals to its installed base, many of which are net new customers. In addition, cross-selling of data quality tools to the existing PowerCenter installed base continues to work well for Informatica. Many customers are considering Informatica's data quality products (Informatica Data Quality [IDQ] and Informatica Data Explorer [IDE]) as the organization's data quality standard.

- Informatica's data quality tools portfolio includes strong data profiling functionality (Data Explorer) and domain-agnostic parsing, standardization and matching capabilities (Data Quality), and with Informatica Data Quality 9.1 there is better collaboration between profiling and mapping and modeling. With its heritage in data integration, and through the acquisitions of longtime partner AddressDoctor and MDM company Siperian, Informatica is well positioned in the converging markets of data integration, data quality and MDM.

- Customer references reported high satisfaction with the integrated nature of Informatica's data quality products with the vendor's flagship data integration solution, PowerCenter. Customers have also expanded the range of data quality domains in which they are using the tools — beyond customer data and into, for example, product data, financial data and healthcare data. With the informaticacloud.com site, Informatica provides a SaaS-based portfolio of data quality, although it is less emphasized vis-a-vis data integration capabilities, such as data synchronization, migration and replication.

Cautions

- While about half of Informatica's reference customers have upgraded to version 9.0 or above, customers are struggling with some of the complexities of the product; in particular, workflow integration, security handling and rule management. Informatica plans to address these issues in a release targeted for 1Q12. The lack of robust data quality reporting is mentioned regularly as a weakness, and some customers are struggling with the efforts associated with the upgrade to version 9.0. Informatica's 9.0.1 release (June 2010) addressed those issues by delivering an automated upgrade utility for IDE and IDQ, as well as additional reporting features. Some reference customers express concern regarding the high price point relative to the value they perceive from Informatica's data quality tools.

- Informatica increasingly needs to go its way alone, as many of its prior OEM and reseller partners are acquiring data integration and data quality technology. The latest in this trend, Oracle, a longtime Informatica partner, has acquired Silver Creek Systems and, more recently, Datanomic, to provide functionality that came from Informatica. Long-term it will become a challenge for Informatica's indirect sales channel for data quality products, after longtime infrastructure and applications partners have acquired data quality technology themselves.

- Increasingly, Informatica is competing against much larger infrastructure vendors with broader product sets for comprehensive data management technologies, including database management system, BI and other capabilities. These vendors represent a significant competitive threat, since they are incumbents for many of the customers and prospects Informatica is targeting with its data quality tools message. Still, most customer references use Informatica's data quality tools in a BI, migration or information governance context, and a growing number of customers also reported usage in combination with an MDM initiative.

Innovative Systems

Pittsburgh, Pennsylvania, www.innovativesystems.com

Products: i/Lytics Data Quality, i/Lytics Data Profiler, FinScan

Customer base: estimated at 700

Strengths

- Innovative Systems has competed in this market longer than most other vendors, with a history spanning nearly four decades and a very higher percentage of customers (relative to the market average) using the vendor's software in production for three years or longer. Innovative's i/Lytics platform provides proven capabilities based on its deep experience in customer data matching and cleansing applications. i/Lytics provides strong support for both mainframe and distributed platforms, and enables data quality functionality to be exposed via service interfaces. Customer references reflect strong usage of the technology in large-scale batch deployments, and with a mix of other use cases including BI and data warehousing, data migrations and MDM initiatives. Innovative was able to generate revenue growth above market averages during 2010, although its market share is relatively small.

- Innovative continues to expand its FinScan compliance watchlist screening offerings, an area that is showing continued strong demand and which represents most of Innovative's growth in this market. FinScan is supported through traditional on-premises software deployment, as well as via a SaaS model, making it easy for customers to embed screening operations directly into critical business processes. Innovative has achieved significant diversification in delivery models across its portfolio, offering customers options for on-premises software deployment (the majority of i/Lytics implementations are of this type), hosted or service-bureau style services, and SaaS.

- Innovative's customer base reflects the vendor's strong experience in the banking and insurance industries — the financial services verticals comprise nearly 90% of the vendor's customers — although the rest of its customer base does include organizations in a variety of other industries such as retail, government and manufacturing. From a functionality perspective, reference customers rate matching and entity resolution, geocoding, parsing, standardization and cleansing, and batch processing reliability and scalability as substantial strengths. Innovative has recently established relationships with providers of data profiling and data integration technology to address functional gaps. While these relationships are at an early stage and are yet to affect the vendor's market position, they will help to align Innovative's product portfolio with key demand trends.

Cautions

- Innovative's customer base remains heavily focused on applying the technology to data quality issues in the customer/party data domain. This is not surprising given that the overwhelming majority of its customers are in the financial services industries, where this data domain is core to their businesses. While some Innovative customers have applied the technology to other domains, such as product/materials data, those customers tend to rate the tools as significantly less capable for their requirements.

- Innovative has established recent partnerships to bolster weaknesses in its data profiling and its lack of presence in the closely related market of data integration tools. While these are positive steps, Innovative will need to demonstrate rapidly that these capabilities are tightly integrated. Changing the market perception of these areas as substantial gaps will be challenging, given that competitive data profiling and data integration tooling, coming from substantially larger competitors, have a presence in most of Innovative's financial services customers. Key to addressing this caution will be the vendor's ability to increase overall mind share in the market, something it has struggled with for many years. Innovative will need to target new market segments beyond financial services, and develop an improved global presence.

- Reference customers regularly cite complexity in the deployment of the software and a desire for the various functional components to operate in a more integrated fashion. While many of these customers had not yet upgraded to the latest version of i/Lytics (which included usability enhancements), Innovative will need to make a concerted effort to modernize the software and improve the customer deployment experience, in order to establish a solid technology foundation from which to address demand for supporting data governance and MDM initiatives. As Innovative targets these emerging areas, minimizing complexity and enabling the engagement of non-technical roles will be critical.

Oracle

Redwood Shores, California, www.oracle.com

Products: Oracle Enterprise Data Quality (Datanomic dn:Director), Oracle Enterprise Data Quality for Product Data

Customer base: estimated at 250

Strengths

▪ Oracle is a new entrant on this year's Magic Quadrant, as it acquired U.K.-based data quality tools vendor Datanomic, thereby fulfilling the inclusion criteria for this report. Oracle had acquired Silver Creek Systems in early 2010, but the product targeted only the product data domain, and didn't have other required capabilities for the Magic Quadrant. With Datanomic, a small but established vendor in the European data quality tools market, Oracle now can provide profiling, cleansing and matching for multiple data domains, from product data to party data, such as customer, supplier or employee.

▪ With Oracle's market reach, it can address data quality issues worldwide, whereby Oracle PDQ (Silver Creek) has a stronger focus on the North American market, while Datanomic has a larger customer base in Europe. However, besides the European market traction, Datanomic has also expanded into North America, where the vendor has opened an office in New York; and in Asia, where Datanomic has signed a distributor agreement. Datanomic and its Java and SOA-based architecture fit well into the Oracle family of data management products, and give Oracle the required data quality technology to handle customer data, support for watchlists, sanctions and politically exposed persons.

▪ All of Oracle's data quality technology will be bundled with the Oracle Data Integration stack and integrated with its MDM hubs. The new product family is Oracle Enterprise Data Quality, while the existing Oracle Data Quality (ODQ) refers to the Trillium Software OEM product. Products from both PDQ and Datanomic will be aligned with the current product set, enabling synergies in the data management portfolio, and also following the market trend to synchronize data integration, data quality and MDM products.

Cautions

▪ Oracle didn't pay much attention to data quality at all in the past, so that customers did not even recognize it as a provider of such tools. Starting now, Oracle is planning to market its data quality offering as the Oracle Enterprise Data Quality "suite," containing Oracle's PDQ product and Datanomic. However, this means that customers should not expect an integrated platform, with single repositories, single user interface, single rule engines, and so on. Instead, the various products will only be "interoperable" for the foreseeable future, with Web services connectivity in between platforms. Although dn:Director is built on an SOA, customer references describe the product as hard to integrate into other environments, and hardly any references report using the product outside customer/party data domains and address cleansing, which increases the risk of a siloed approach to the various data quality products. This will potentially cause friction in a data quality initiative if it needs to span both product data and party data, and may increase the necessary implementation efforts.

▪ Oracle customers using one of the vendor's data quality tools partners, in particular Trillium Software, are likely to see a rapid cooling-off period of Oracle's interest in its data quality OEM alliances. Oracle plans to enable its sales force to sell the entire data quality tools portfolio, including cross-selling from adjacent technology areas, such as product information management or MDM. As such, an Oracle-centric data quality offering will replace a hybrid approach that includes third-party data quality software. With Oracle's

current strategy, organizations that have a need for a single-domain data quality tool (for example, only product data or only customer data), find appropriate products from Oracle. However, companies with a broad multidomain data quality initiative will struggle to decide what to license from Oracle (PDQ, Datanomic, OEM with Trillium or other data quality partners), as there are many overlapping options.

- Despite the Web services capabilities of the combined Oracle data quality products, neither PDQ nor Datanomic dn:Director are offered as a cloud-based data quality solution. In fact, a SaaS model is not even on the short-term road map. Almost all customer references indicate that they installed Datanomic's products on-premises. Both the former Silver Creek and Datanomic companies have been unable to engage large SIs as channel partners. Oracle's large partner network will certainly help to increase the visibility of its new data quality tools portfolio; however, unless it spends a significant amount on marketing the new solutions, mind share remains low.

Pitney Bowes Business Insight

Troy, New York, www.pbbusinessinsight.com

Products: Spectrum Technology Platform

Customer base: estimated at 2,600

Strengths

- Pitney Bowes Business Insight (PBBI) continues to evolve the vision for its Spectrum Technology Platform, which represents a framework for delivering core data quality functionality and related capabilities such as data integration and location intelligence (geo-spatial analytic capabilities). PBBI continues to receive recognition for its strength in global name and address standardization and validation, matching-related capabilities (including linking and deduplication) and geocoding. This functionality is supported on a range of platforms, including the mainframe. PBBI saw very strong growth in Spectrum during 2010 via direct sales, as well as through partnerships with large SIs such as Tata Consultancy Services and Deloitte.

- PBBI's rich capabilities for handling "location" data, and the synergy with the acquired MapInfo capabilities, continue to represent a significant differentiator for the vendor. Specifically, support for complex location-related data types, functionality for quality-assuring them, and performing analytical operations of a geographic nature represent areas of growing demand. Reference customers rated PBBI stronger than many competitors in the area of data quality capabilities for location-oriented data. Coupled with strength in traditional customer data cleansing operations (such as address management, matching and deduplication), PBBI is positioned to support areas of growing demand related to customer intelligence and context-aware services. The majority of recent reference customer implementations were focused specifically on these two data domains, and were heavily weighted toward industries where these domains are critical — banking, insurance, retail and consumer services. Spectrum version 7, released in May 2011, included new functionality for data stewards to directly participate in the management of issue resolution via a Web-based interface, prebuilt integration with partner services like D&B, Experian and Targusinfo, and a range of enhancements focused on name and address cleansing.

- PBBI retains a large installed base and a position as one of the market-share leaders for data quality tools. The vendor's large scale and global footprint give it greater stability in comparison with many competitors of

much smaller stature. Revenue reflects an installed base that is currently very North-American-centric (although international revenue grew by 40% last year), with large enterprises making up most of its customers. Implementations span a range of use cases with a bias toward data quality controls in operational applications. Time to value in delivery of PBBI's data quality capabilities is seen as a strength by customers, although many implementations have a somewhat narrow focus on a single data domain or subset of the full Spectrum capabilities.

Cautions

- With a corporate strategy focused on customer communications management, and positioning of Spectrum to target customer and location-related data quality issues, PBBI's positioning in the data quality space is narrower than many of its competitors. Demand for data quality tools continues to be multidomain in nature, with many buyers seeking tools which can address various data types. Capabilities for product/materials data quality support are of increasing interest as organizations focus on MDM related to their products and services. While the Spectrum platform is multidomain-capable and deployments do reflect some activity in domains beyond customer and location, recent interactions with reference customers seem to indicate that implementations with significant complexity in other data domains remain rare.

- PBBI continues to see extremely limited adoption and use of profiling, visualization and monitoring functionality. Customers using the profiling capabilities indicate a good degree of satisfaction, although implementations appear limited in scale and complexity. Lack of proof points in these areas of data quality analysis and monitoring represent substantial challenges for PBBI, since these are among the most rapidly growing areas of demand in the market. Customers have traditionally assessed the ease of installation and use of the technology as requiring improvement, and on average they continue to perceive this as an opportunity for PBBI to significantly enhance its products. However, reference customers running more recent versions of Spectrum indicate improvements in this area.

- Having established a framework for aligning its various data quality functionalities and integrating them with related capabilities, PBBI faces the challenge of re-energizing its marketing efforts and regaining strong mind share in the market. The various market leaders and other competitors have far surpassed PBBI in overall awareness and activity in the data quality tools market, as measured by Gartner client inquiries, analysis of buyers' shortlists, and references in the media and popular blogs. PBBI will need to focus on leveraging the large Pitney Bowes customer base to rapidly increase awareness of Spectrum, and take action to create a renewed perception of thought leadership.

SAP

Walldorf, Germany, www.sap.com

Products: Data Quality Management, Data Insight, Data Services, Information Steward

Customer base: estimated at 4,600

Strengths

- SAP provides a good breadth of functional data quality capabilities, including data profiling and common data cleansing operations, which can be applied in diverse environments. The core data quality functionality

in Data Quality Management enables the delivery of data quality services in an SOA context, and is used in the Data Services product (which combines data integration and the Data Quality Management functionality). Once again, a survey of SAP customers shows that a majority are deploying data quality capabilities via an implementation of Data Services. However, use of the data profiling capabilities of the Data Insight product are far less common. With the recent delivery of the new Information Steward product, part of the SAP BusinessObjects version 4.0 technology set, SAP should be able to gain greater adoption of its profiling capabilities, as well as capture the growing demand generated by an increased focus on information governance in the market. Version 4.0 also included a number of data quality enhancements — many of these were focused on depth of support for customer data quality applications (for example, increased global names, addresses and geocoding), but also included unstructured text support and extensions to customized parsing and standardization capabilities for non-customer data domains.

- SAP has a substantial BI platform market presence and a large base of data quality tools customers. This creates significant cross-sell opportunities for the vendor to increase its data quality tools business. The vendor's growth prospects are further expanded via access to the global SAP applications customer base, where data quality challenges are prevalent. In particular, the SAP BusinessObjects data quality tools complement SAP's MDM offerings, which have been lacking rich data quality functionality. Customers perceive integration with other SAP BusinessObjects tools and with SAP's business applications as a main reason for choosing the vendor. In addition, performance is viewed as a significant strength.

- SAP's strength in this market remains in applications of customer/party data quality, specifically in matching/ linking, deduplication and name and address standardization and validation. The technology is proven for applications of this type and such implementations represent the vast majority of the installed base (nearly 100%, based on surveys of reference customers). In line with a trend that has continued for the past two years, recent customer interactions reflect increased usage in other data domains, with 63% of the same recent customer sample indicating that they are also applying the tools to product and materials data. While we believe this is a significantly higher percentage than seen across the entire customer base, it represents progress by SAP in proving competence beyond the customer data domain.

Cautions

- While reference customers show increased adoption of the SAP BusinessObjects data quality tooling for non-party data domains, customers rate the support for product/materials, financial/quantitative and location/facility data as areas of relative weakness, and substantially weaker than most other market leaders. This continues to be an area in which SAP must improve to support the needs of customers of its applications and MDM. Expanded functionality for creating customized parsing and standardization rules, delivered with version 4.0 in 2Q11, is intended to address this gap, although the impact is yet to be seen.

- The new Information Steward product is intended to address significant weaknesses in data profiling that SAP has exhibited for several years. However, since this product was only delivered within the past quarter, customer adoption is still limited. Current customers continue to cite data profiling as a substantial challenge, with the recent reference customer sample rating SAP's profiling capabilities far below the market average. Several believed that Information Steward will help to address these concerns, as well as provide additional functionality for workflow of the processes performed by data stewards.

- The most recent reference customer sample shows improvement in overall satisfaction with the SAP relationship and the value of the vendor's data quality tools relative to their cost. However, SAP continues to

struggle with delivering high-quality product support and professional services to its customers. Reference customers cite these areas as the weakest points for SAP, and the vendor received the lowest scores for product support of all vendors on the quadrant. Recognizing challenges in this area, SAP is taking a number of actions, including improving support knowledge bases, increasing training of support engineers, and establishing global support leadership roles for the SAP BusinessObjects Enterprise Information Management product set, which includes data quality tooling.

Talend

Suresnes, France, www.talend.com

Products: Talend Open Profiler, Talend Data Quality

Customer base: estimated at 120

Strengths

- Talend is a new entrant on this year's Magic Quadrant, and the first open-source provider of data quality solutions to meet the inclusion criteria for both functionality and market presence. The company provides the free Talend Open Profiler under a General Public License, for which technical support is paid per developer seat, and a more fully featured commercial platform named Talend Data Quality, for which customers purchase a yearly subscription, which includes free support for the number of licensed developers. In addition to reporting extensions to the free profiling tool, Talend Data Quality provides broad functionality, such as parsing, matching, cleansing, standardization or enrichment.

- As open-source technology keeps growing, Talend has adopted the market trend of integrating data integration, data quality and, further along, MDM functionality. The big driver for customers taking the open-source route is obviously the low initial cost. While larger commercial Talend deals can easily grow into the same price region as its competitors, the barrier to entry is significantly lower, not least through the free profiling tool. The low entry price point was one of the main reasons reference customers chose Talend. To round out its portfolio, Talend has added MDM capabilities, and acquired Sopera (see "Talend's Acquisition of Sopera Affirms Integration Market Convergence"), enabling it to handle data quality services on an enterprise service bus. While customers aren't asking for that kind of implementation yet, a more pervasive use of data quality would certainly include the execution of quality rules on a service bus.

- In areas where Talend has none of its own products, it has formed alliances with technology partners, such as Uniserv, for postal validation in Western Europe, and Experian QAS, which adds needed address verification solutions to the Talend portfolio.

Cautions

- Talend is mostly known for its open-source data integration offering, but it has virtually no brand awareness in the data quality market, which contains very different buyers. While data integration, particularly from an open-source vendor, appeals mostly to a rather technology-oriented audience, data quality needs to be addressed by business users, a group that traditionally does not look at open source. In addition, while many data quality tools vendors shift their focus toward business-user-facing functionality, Talend's offering seems to require more technical skills, and ease of use is cited by reference customers as an area for improvement.

- As a newcomer to the data quality tools market, Talend faces typical issues with product quality. Several reference customers cite the product's immaturity, and mention issues with bugginess and performance. Also, customers report that only the current major version (version 4.x) of the product seems to be supported, and rapid point releases cause customers to feel pressured to upgrade. Talend states that later in 2011 it will begin to provide back-level support on any versions or releases up to three years old. Overall product support is rated lower than most competitors, and the open-source community appears not to fill the void.

- The open-source model doesn't immediately lend itself to SaaS-based offerings, as the consumer of a data quality cloud service does not know or care about open source. As there is nothing to install on the client site, having an open-source software model is a moot point. As such, Talend is somewhat disadvantaged when compared to its commercial competitors, many of which see data quality services in the cloud as a new revenue opportunity.

Trillium Software

Billerica, Massachusetts, www.trilliumsoftware.com

Products: The Trillium Software System, TS Discovery, TS Insight

Customer base: estimated at 925

Strengths

- Trillium Software, a division of marketing services provider Harte-Hanks, provides a broad suite of data quality tools, including data profiling (TS Discovery), core data quality components (the Trillium Software System) and a data quality dashboard offering (TS Insight). Its data enrichment capabilities are focused on customer data (addresses, geocoding and watchlist compliance). During 2010, Trillium refined its strategy to focus on three areas: direct sales of its software for horizontal use (as it has done for many years), delivery of software and services solutions for risk and compliance applications, and indirect software sales via OEM and joint marketing partnerships. This diversified strategy makes sense for Trillium in a dynamic market with many competitors of far greater size and reach. Another key development is the engagement of the Harte-Hanks sales force, which is now empowered to sell Trillium's technology.

- Trillium's brand recognition remains very strong in the market, with the vendor appearing in competitive evaluations at a degree of frequency nearly equal to other market leaders. The customer base reflects a diversity of use cases, with a recent sample of reference customers showing higher adoption for real-time use within operational applications, within MDM initiatives, and in support of data governance programs than most of the company's competitors. Reference customers are active with the tools in a mix of data domains. While approaching the same mix as other market leaders, Trillium continues to show a bias toward customer/party data applications, which is sometimes interpreted as a weakness by buyers seeking equally deep support for multiple data domains.

- Reference customers cite functional capabilities — specifically profiling, base data manipulation operations such as parsing and standardization, matching, and support for real-time deployments — as the main reasons for choosing Trillium. In addition, performance and scalability are viewed as strengths by customers. With its history and strong track record in the data quality tools market. the vendor's experience in the data

quality discipline is also cited by reference customers as a significant factor in their selection of Trillium over its competitors.

Cautions

- Trillium needs to continue improving the usability of its technology, particularly in light of market demand for rapid deployment, easy enhancement, and engagement of non-technical resources outside the IT organization. Reference customers, a significant majority of which are running versions prior to the current version 13, continue to cite this as an area where Trilllium should focus. Version 13 of the Trillium Software System was intended to improve ease of use, particularly for data stewardship roles and other more business-focused roles in support of data governance initiatives. The vendor's product road map for the remainder of 2011 and beyond includes a focus on usability. An OEM relationship with DataDirect. expected to be completed in 1Q12, will enable substantial improvements in database connectivity (an area where Trillium has traditionally been considered weak).

- Trillium has elected to pursue a strategy which keeps its product capabilities squarely focused on the data quality tools market. With the ongoing and rapid convergence of this market with the related markets of data integration tools and MDM solutions, the vendor's positioning is increasingly at odds with buyer preferences for broader data management capabilities. With all of its main competitors present in each of these related markets, Trillium faces a growing competitive risk. Its OEM partnerships, including a recent relationship with Tibco, help to mitigate these risks to some degree. However, the most significant of these OEM deals, in which Oracle has been offering Trillium's technology as an option for Oracle Data Integrator, is likely to degrade in the near future due to Oracle's direct entry into the data quality tools market (see "Oracle Adds Datanomic to Its Disparate Mix of Data Quality Tools").

- Another challenge, related to the issue of the complexity of Trillium's technology, is a relative lack of available resources with deep Trillium skills. Customers often indicate a desire for skilled resources to help address complexity challenges, both in initial implementation (particularly for complex projects), and in version upgrades and technical integration with other software in the environment. However, those customers often struggle to find locally available consultancies and implementation partners with the necessary depth of expertise to support them well in such efforts. Trillium states that it intends to improve its professional service offerings in various ways, to support the increased focus on risk and compliance solutions and to develop a more strategic relationship with its customers.

Uniserv

Pforzheim, Germany, www.uniserv.com

Products: Data Quality (DQ) Explorer, DQ Batch Suite, DQ Real-Time Services, DQ Monitor

Customer base: estimated at 1,000

Strengths

- Uniserv is the largest pure-play provider of data quality solutions in Europe, with over 40 years of history, more than any other vendor in this roundup. It focuses almost exclusively on customer data, name and address verification and geocoding. About 80% of Uniserv's revenue and customers are in Germany and

France, but the vendor has customers in other European countries as well, and is also established in the U.S. The increased marketing spend is paying off, as Uniserv has become a more visible player in markets outside its home turf.

- Uniserv is implemented mostly as an on-premises data quality solution, but the vendor was one of the first that focused also on the SaaS delivery channel, which already shows good growth potential. Almost all references report using the vendor's product equally in both batch and real-time processing environments. Uniserv has expanded its product portfolio, and through a reseller agreement is now also providing comprehensive data quality monitoring and data profiling with its DQ Explorer product. In addition, Uniserv struck an OEM agreement with Talend, thereby delivering capabilities for data integration, migration and synchronization.

- The Uniserv product integrates with all relevant CRM systems, including Microsoft Dynamics, SAP, Siebel, PeopleSoft, salesforce.com and Update. Uniserv is fully Unicode-enabled, and is one of very few products that operate on a wide variety of system platforms, from all major Windows and Unix/Linux versions to IBM mainframes under z/OS and Virtual Storage Extended (z/VSE), as well as IBM System i and Siemens BS2000.

Cautions

- As many organizations start to view data quality as a domain-agnostic issue, Uniserv's strong focus on address standardization and validation will put it at a competitive disadvantage compared with other providers that have a reputation for addressing a broader range of data quality issues, such as product or financial data. Using Uniserv's products in other data domains remains late on the time horizon.

- Uniserv is an established brand for matching, merging, cleansing and address and bank data verification technologies, but it does not serve increasingly popular areas such as data quality dashboards. The vendor also shows weaknesses in data quality measurement and monitoring. While Uniserv offers three-tiered service engagement, called "DQ Audit," which includes a free initial sample data assessment, the reference survey shows no adoption of profiling, visualization and monitoring by Uniserv customers. Also, while the market increasingly moves toward broader data governance initiatives, Uniserv's rather large services organization slowly changes from pure implementation support to longer-term data quality consulting projects.

- While the vendor has made investments in a telesales organization and alliance management, it does not show much traction. Uniserv's strong concentration on its direct sales force, and its lack of large international alliances with SIs and independent software vendors that use Uniserv technology as OEMs, has put the vendor under increasing pressure from the larger infrastructure providers.

Vendors Added or Dropped

We review and adjust our inclusion criteria for Magic Quadrants and MarketScopes as markets change. As a result of these adjustments, the mix of vendors in any Magic Quadrant or MarketScope may change over time. A vendor appearing in a Magic Quadrant or MarketScope one year and not the next does not necessarily indicate that we have changed our opinion of that

vendor. This may be a reflection of a change in the market and, therefore, changed evaluation criteria, or a change of focus by a vendor.

Evaluation Criteria Definitions

Ability to Execute

Product/Service: Core goods and services offered by the vendor that compete in/serve the defined market. This includes current product/service capabilities, quality, feature sets, skills, etc., whether offered natively or through OEM agreements/partnerships as defined in the market definition and detailed in the subcriteria.

Overall Viability (Business Unit, Financial, Strategy, Organization): Viability includes an assessment of the overall organization's financial health, the financial and practical success of the business unit, and the likelihood of the individual business unit to continue investing in the product, to continue offering the product and to advance the state of the art within the organization's portfolio of products.

Sales Execution/Pricing: The vendor's capabilities in all pre-sales activities and the structure that supports them. This includes deal management, pricing and negotiation, pre-sales support and the overall effectiveness of the sales channel.

Market Responsiveness and Track Record: Ability to respond, change direction, be flexible and achieve competitive success as opportunities develop, competitors act, customer needs evolve and market dynamics change. This criterion also considers the vendor's history of responsiveness.

Marketing Execution: The clarity, quality, creativity and efficacy of programs designed to deliver the organization's message in order to influence the market, promote the brand and business, increase awareness of the products, and establish a positive identification with the product/brand and organization in the minds of buyers. This "mind share" can be driven by a combination of publicity, promotional, thought leadership, word-of-mouth and sales activities.

Customer Experience: Relationships, products and services/programs that enable clients to be successful with the products evaluated. Specifically, this includes the ways customers receive technical support or account support. This can also include ancillary tools, customer support programs (and the quality thereof), availability of user groups, service-level agreements, etc.

Operations: The ability of the organization to meet its goals and commitments. Factors include the quality of the organizational structure including skills, experiences, programs, systems and other vehicles that enable the organization to operate effectively and efficiently on an ongoing basis.

Completeness of Vision

Market Understanding: Ability of the vendor to understand buyers' wants and needs and to translate those into products and services. Vendors that show the highest degree of vision listen and understand buyers' wants and needs, and can shape or enhance those with their added vision.

Marketing Strategy: A clear, differentiated set of messages consistently communicated throughout the organization and externalized through the website, advertising, customer programs and positioning statements.

Sales Strategy: The strategy for selling product that uses the appropriate network of direct and indirect sales, marketing, service and communication affiliates that extend the scope and depth of market reach, skills, expertise, technologies, services and the customer base.

Offering (Product) Strategy: The vendor's approach to product development and delivery that emphasizes differentiation, functionality, methodology and feature set as they map to current and future requirements.

Business Model: The soundness and logic of the vendor's underlying business proposition.

Vertical/Industry Strategy: The vendor's strategy to direct resources, skills and offerings to meet the specific needs of individual market segments, including verticals.

Innovation: Direct, related, complementary and synergistic layouts of resources, expertise or capital for investment, consolidation, defensive or pre-emptive purposes.

Geographic Strategy: The vendor's strategy to direct resources, skills and offerings to meet the specific needs of geographies outside the "home" or native geography, either directly or through partners, channels and subsidiaries as appropriate for that geography and market.