

Magic Quadrant for Product Information Management, 2005

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Gartner's Product Information Management Magic Quadrant has no clear leader, although market execution and vision are beginning to separate the vendors. Evaluate PIM solutions if you don't have a single view of your product data; understand the risks associated with maturing PIM products.

WHAT YOU NEED TO KNOW

Organizations struggle to gain a consistent, complete and accurate single view of the products they manufacture or handle for operational and analytical purposes. This reduces the effectiveness of individual departments that need such data, and IT is less able to provide the business support for agile process orchestration. Product content and data management (PCDM) is a set of related disciplines, technologies and solutions used to create and maintain a consistent interpretation of product data to facilitate commercial exchange, helping to create and enrich vocabularies so that enterprises can share a common language. Product information management (PIM) is the key technology that has emerged to help enterprises support their PCDM efforts (see Note 1).

Although the PIM market is immature, it is evolving quickly. There are potential first-mover advantages, but there are also risks because of the immaturity of the products and long-term viability concerns for smaller vendors. No leader will emerge in the PIM market prior to 2007 (0.7 probability). For most product-centric industries, and even some service-centric industries (such as those with digital products, for example), these products are most suitable for early adopters. Balance risk with reward, and bear in mind the strategic nature of PIM in context of the evolution toward service-oriented architectures (SOAs) and a broader enterprise information management (EIM) program.

Evaluate PIM vendors based on a defined set of criteria based on the vendor's vision (market focus; and business, product and technology strategies, including the ease of interoperability to your current and intended application portfolio) and ability to execute (viability, product functionality, implementation and support, technology and costs).

Note 1 Definition of PIM

PIM solutions are applications that are designed to create a single view of the product for an enterprise, across all operational and analytics uses, independent of any other repository of product data. PIM solutions store master data (or metadata) related to products and other attribute data pertaining to product. PIM systems can operate as a system of record (where product and additional data is initially created and subscribed to by remote, consuming systems), as a system of reference (where systems subscribe to remote master data using the PIM solution as a "look up" to locate and access the data) or as a mixed record/reference deployment.

Customer references can offer valued insight into a vendor's capabilities above almost anything a vendor will claim and are key evaluation criteria. Supplement your own detailed needs requirement profile with this Magic Quadrant. Adequate and well-directed preparation will result in better evaluations and end results.

PIM is a complementary market to customer data integration (CDI), yet it has a different data model and subject area focus. The CDI market includes a CDI hub Magic Quadrant, and these two markets represent different domains within an organization's goals for master data management (MDM) across multiple subject areas as part of its EIM initiative.

STRATEGIC PLANNING ASSUMPTION(S)

By 2009, the PIM market will see strong growth, reaching revenue of more than \$500 million (0.7 probability). By 2010, the major application infrastructure vendors (IBM, Microsoft, Oracle and SAP) will command more than 50 percent of PIM software license revenue (0.7 probability). By 2009, IBM, Oracle and SAP will command more than 50 percent of PIM software license revenue (0.7 probability). By 2008, as SAP NetWeaver MDM matures, SAP will be a major force in the PIM market (0.8 probability). No leader will emerge in the PIM market prior to 2007 (0.7 probability).

MAGIC QUADRANT

Gartner's Magic Quadrant for Product Information Management, 2005 (see Figure 1) provides insight into the evolving PIM market. Vendors are evaluated based on their ability to execute, as well as their vision for PIM.

Market Overview

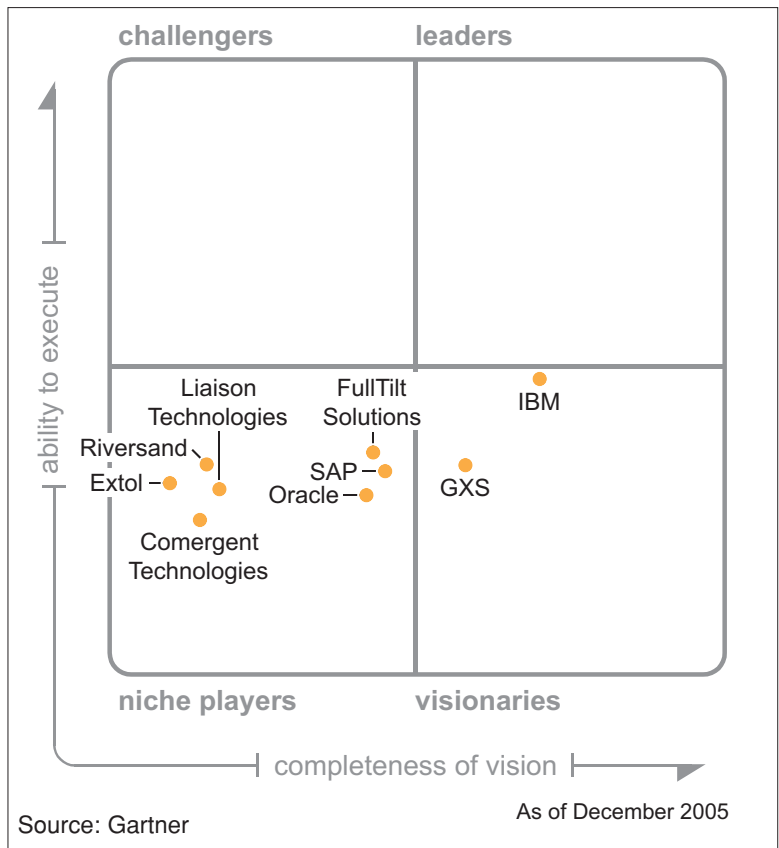
Based on preliminary market-sizing data for 2004 (PIM for all industries is estimated at \$110 million in license revenue) and 2005 (\$180 million), we rate this emerging market as "promising." Based on conversations with Gartner clients, we expect to see strong growth across a wide range of industries, including retail, consumer goods, industrial, automotive, life-sciences and distribution/wholesale.

The PIM market is attracting end-user organizations that are trying to achieve a single view of product data. PIM has emerged as the primary technology component of an enterprise effort to achieve PCDM. The problems associated with achieving a single view of product data across an enterprise, or value chain, are particularly prevalent in complex organizations consisting of a heterogeneous environment comprising multiple application stacks (for example, SAP, Oracle and i2 Technologies), applications or point solutions (for example, Manugistics demand planning and Demand Solutions), business intelligence (BI) data warehouses (for example, Teradata and SAS), and other silos of transactional, operational, and analytical data. A single, centralized repository for product master data was needed, and the PIM market emerged.

There are many scenarios where a PIM solution can be used to achieve a single view of product:

- Heterogeneous systems from different vendors, such as supply chain management (SCM),

Figure 1. Magic Quadrant for Product Information Management, 2005



supplier relationship management, product life cycle management (PLM), ERP and CRM

- Numerous instances of an application from the same vendor (for example, to gain efficiencies in CRM and SCM from consistency of data across multiple ERP systems)
- External business-to-business (B2B) activities related to global data synchronization, radio-frequency identification (RFID) projects and B2B catalog/search

Each scenario requires a PCDM strategy that is defined as the combination of the technologies, processes and services required to develop and maintain an accurate, timely and complete view of

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the product across multiple channels, business lines and, potentially, companies in which there are multiple sources of product data in various applications and databases. This Magic Quadrant looks at the use of PIM technologies by enterprises to achieve and meet their PCDM needs for enterprisewide “single view of product” as part of a larger EIM strategy (see Note 2).

Within this broad context, Gartner has observed the emergence of a market for PIM technologies to help enterprises achieve PCDM. These are software products that support the global identification, linking and synchronization of product information across heterogeneous data sources; create and manage a database system of record; and enable the delivery of a single product view. PIM architectural forms (see Note 3) vary in orientation (that is, toward physical instantiation of master data or toward a metadata representation), latency of the interaction with the “spoke” systems and how they are accessed – by query or transactional applications.

A variety of vendors are entering the PIM market from different directions:

- Specialist vendors see increased interest in the PIM concept.
- Related vendors in the catalog business offer PIM-like functionality.
- B2B and integration vendors that carry a lot of the syndicated data between enterprises and store the data centrally offer hosted PIM functionality.
- Enterprise suite, SCM and PLM suite vendors recognize that, in heterogeneous scenarios, there is a need for a “PIM style” of product in addition to their application suite with its underlying database.

Market Definition/Description

Markets are sets of potential buyers who view the product as solving a common identified need and reference each other. Market segments are portions of that generic market that are qualified by more-exact criteria that group potential buyers more tightly. Segmentation may take two forms:

- A generic market may be divided into a recognizable entity where the rules for defining a market still hold.
- An individual vendor may segment the market to target its products more precisely and differentiate itself from (or avoid competing with) other players addressing the same overall market. However, the targeted buyers may not know they are part of the

same market segment. Such segmentation will not be reflected explicitly in the Magic Quadrant, although it may be reflected implicitly (via placement of a vendor in the Niche Players quadrant, for example).

Note 2 Definition of EIM

Gartner defines EIM as an organizational commitment to define, secure and improve the accuracy and integrity of information assets and to solve semantic inconsistencies across all boundaries, thus supporting the technical, operational and business objectives within the company’s enterprise architecture strategy. PCDM (the goal and strategy) and the PIM tools that enable you to achieve PCDM are part of an EIM strategy.

Note 3 Architectural Styles of PIM

Registry style: This style matches and links product master data (and metadata when applicable) to create metadata-based systems of record. It physically stores a global ID (or pointer) and links to the fragments of master data in source systems and the transformation (rules) necessary to achieve semantic reconciliation. The single product view is dynamically assembled and is usually read only. The registry-style PIM provides a central real-time reference point. Industry registries exist, such as the Global Register for consumer products managed by GS1 US (formally UCCnet), and the healthcare OneSource catalog hosted by GHX.

Coexistence style: This style physically stores the master data that comprises the single product view (fewest attributed needed to uniquely identify a product). The PIM is used to create and publish the single product view. It is not usually used for transactions, but is updated after the event. It harmonizes product master data across databases and acts as a central reference point. This model suits large distributed organizations with multiple divisions that operate autonomously but share common reference data with some local differences or extensions.

Hub style: This style physically stores the up-to-date product master data that comprises the single product view with its associated enriched attribute data. It directly supports new and legacy transactional and analytical applications, typically through a business service and data integration layer. It centralizes product master data and provides a key foundation for transactional and analytical applications and a transition to an SOA.

The PIM market is characterized by two groups of customers with common requirements. One group has a large, centralized source system (probably called ERP) where the bulk of product data resides; the other group has multiple repositories (even ERP) and consuming systems. Both examples are heterogeneous in that there will be multiple sources and recipient applications of product data, but the degree of heterogeneity is greater in the second group.

PIM solutions are software products that:

- Support the global identification, linking and synchronization of product information across heterogeneous data sources through semantic reconciliation of reference data
- Create and manage a central database system of record
- Enable the delivery of single product view (for all stakeholders)
- Support data quality and compliance through monitoring and corrective action techniques

A PIM application forms part of an organization's PCDM strategy, which then forms part of an organization's EIM strategy. An EIM strategy encompasses the management of product, customer, asset, person/party, supplier and financial data.

Inclusion and Exclusion Criteria

In view of the relative immaturity but growth of the PIM market, we have set the bar for inclusion criteria relatively low. As the market evolves, these criteria will become more stringent. We include specialist vendors as well as large enterprise software vendors with a product in the market, along with additional vendors that Gartner perceives as having a unique vision or position in the market worthy of inclusion, even if they do not meet the inclusion criteria or entrance barriers.

Regarding market traction and momentum, the vendor should have:

- At least five live customer references for PIM product functionality connected to more than two non-native applications (meaning, outside of the implemented ERP or item master)
- At least four new customers for PIM products in the past four quarters connected to more than two non-native applications

- Generated at least \$5 million in total revenue related to PIM product solutions in the past four quarters

Regarding near-term viability, the vendor should have:

- Sufficient professional services to fulfill customer demand during the next six months
- Enough cash to fund a year of operations on current burn rate – that is, companies spend their cash reserves if the year of operations is cash-flow-negative

Other Vendors Not Rated in This Magic Quadrant

Several vendors and technologies are on the periphery of the PIM market in that they help customers achieve a single view of product but not necessarily via PIM functionality:

Cardonet: A small vendor (estimated revenue of \$2 million) that sells PIM to enable e-commerce and multichannel selling. It targets manufacturing and distribution industries, such as office suppliers, electrical, high tech, healthcare, and paper and chemical industries.

Enterworks: A small PIM vendor (estimated revenue of \$6 million) that sells through original equipment manufacturer (OEM) relationships and direct channels. The product is built on Java 2 Platform, Enterprise Edition (J2EE), and functionally supports Extensible Markup Language and business services for new product introductions. It is sold to organizations for sell-side data management. Although Enterworks risked an OEM-only strategy until late 2005, it has expanded its direct sales, taking over more than 50 former customers of Inovis (which since acquired QRS with its own PIM offering), upselling many from global data synchronization (GDS) to PIM solutions, and making new direct Enterworks sales in accounts established initially with partners such as TIBCO Software (which has since acquired Velosel). Enterworks' other OEM partner, Cyclone Commerce, has not sold any PIM. Gartner expects continued emphasis on the growth of the direct strategy in 2006.

Global Data Synchronization Network (GDSN) Data Pools, such as WWRE/GNX, GS1 US, UCCnet/Transora), GS-1UK (UDEX): Represent

consumer goods/retail, country-level product data repositories. For the most part, these are not “systems of record” but more “systems of reference” in that a system of record is where the original (what some users call “golden record”) is stored, and a system of reference is simply a link to the golden record that other systems refer to. Data pools are specifically for use between enterprises (B2B) and are part of the GDSN. Most large or complex enterprises will still end up with a PIM behind the firewall connected to multiple data pools, as well as to partners directly, even partners not compliant with GDSN (see Note 4).

Hyperion Solutions: A BI vendor that acquired an MDM vendor called Razza Solutions. Hyperion acquired the vendor to streamline integration of its own BI solution to the enterprise IT stack at the customer. This is an example of a vendor that has the potential to confuse messages from vendors that market MDM and product-centric MDM only to sell more BI than to help you manager your product master data from upstream operational systems to downstream analytical systems.

Inovis: The vendor acquired QRS in 2004. With the acquisition came a new PIM solution that QRS had developed (QRS Impact) from its original product catalog offering. QRS has a large customer base in apparel retail and supply chain. However, Inovis has yet to articulate its strategy with respect to PIM and was not available for this analysis. Users should not look at Inovis to meet their PIM needs until and if Inovis returns to this market.

Kalido: A small vendor (with 35 licensed customers and 200 implementations and about \$20 million in revenue in 2005) focused on enterprise data warehousing and, more recently, the management of master data for multiple uses, ranging from implementation of BI solutions to achieving single view of product in support of PCDM. Kalido is not targeting the PIM market directly but technically supports the same architecture. One customer, Unilever, uses Kalido corporately to manage centralized global product data and separate “deep PIM” systems (IBM’s WebSphere Product Center, formally Trigo Technologies) locally by country and division to handle local and complex product data attributes. Users should look at Kalido or other generalist MDM vendors to meet PIM requirements in less-complex implementations and when PIM is

Note 4 Definition of Data Pool

A data pool is an external (to the enterprise) repository of products and other master and extended data centralized to represent an aggregate market, region, channel or territory. Data pools form part of larger, standards-driven networks of supply chains that formalize their content and interaction styles to service the needs of networkwide data synchronization. The largest example of an industry network of data pools is in consumer goods and retail, although other industries (healthcare uses one so far with GHX) may follow with similar structures.

part of a broader EIM strategy that spans other master data objects.

Manhattan Associates: The vendor acquired Evant in 2005. Evant was a supply chain planning (SCP) vendor that developed PIM tools to help integrate new promotion and Web catalog offerings into complex, heterogeneous retail environments. Evant was about to enter the PIM market for retail. However, the acquisition by Manhattan focused more on the SCP part of Evant’s business. We expect to see greater interest by Manhattan in the PIM market in 2006.

Regio: A small PIM vendor (Gartner estimate under \$5 million in revenue in 2005) based in the U.K. with, according to Gartner research, about 20 customers. The vendor was originally an e-commerce Web catalog vendor. One of its solutions is installed at the National Health Service (in the U.K.) where PIM technology is used to simplify procurement services for indirect materials. Tesco, a large U.K. retailer, is using the solution for sell-side PIM to manage inbound data from suppliers and the product data with the e-commerce side of the business to synchronize with internal merchandise management processes. In October 2005, the vendor was acquired by Marrakech, a U.K.-based spend management vendor and was not available for this analysis.

Silver Creek Systems: A small vendor (Gartner estimates it has 10 customers) focused on data cleansing, normalization and standardization. References suggest that Silver Creek Systems’ DataLens System product helps achieve a single view of the product extremely quickly via the setting of user-specified business rules that are used to filter

and match data. This is particularly acute as a requirement in the electronic distribution industry. If PIM is to be an important part of your future, then this tool (or something like it) is likely to be of interest. With or without a PIM plan, users with complex attribute-based search and matching should evaluate Silver Creek Systems or equivalent technology.

Sterling Commerce: A large B2B integration vendor beginning to support hosting of complex supply chain business applications, mainly through its recent acquisition of Yantra. Sterling is developing its PIM solution and may evolve this to a broader EIM solution to underpin its hosted application strategy. It introduced its PIM product late in 2005. Users looking for a mature PIM product should not include Sterling Commerce until 2H06.

TIBCO Software: Gartner estimates that Velosel, a PIM vendor, had about 15 customers at the time it was acquired by TIBCO in 2005. Back when Trigo Technologies was acquired by IBM in 2004, Velosel was then the largest independent PIM vendor focused on the consumer goods sector, driven by the excitement around GDS. Perhaps too focused on GDS, Velosel lost its way in 2004 and was acquired by TIBCO. TIBCO has made Velosel central to its vision related to building out a broader MDM strategy in response to IBM's "information on demand" go-to-market vision. Early signs suggest that TIBCO will market the PIM offering as a generalist solution to manage various forms of master data across many industries. Treat TIBCO MDM, as the Velosel product is now known, with caution until signs of stability and focus are demonstrated by the vendor.

Evaluation Criteria

Ability to Execute

Viability (Medium) – Vendors will be measured on the basis of:

- Ability to generate sustainable business results in the PIM market.
- Marketing and sales capabilities – Consistently generate market demand and awareness of their PIM solutions through marketing programs and the media. Provide global sales and distribution coverage that aligns with marketing messages and has experience in selling its PIM product to the business and IT buying centers.

Product Functionality (High) – Vendors will be measured on the ability of their current product releases to support the following PIM functionality, weighted as follows:

1. Data model. The applicability of the data model to your organization is the most-important criterion. It must:
 - Model the complex relationships between the internal application sources inside the organization, business and consumer customers, as well as intermediaries and other parties
 - Map to the master product information requirements of the organization across item masters, catalogs, e-commerce and syndication requirements, and expose underlying business rules and associated metadata
 - Be customizable, configurable, extensible and upgradable
 - Support industry-specific requirements as well as multiple hierarchical and aggregated views associated with product and catalog structures related to channels and customers
 - Provide a base for the required workload mix and level of performance
 - Support complex parametric search capabilities servicing even external Web service requests
2. Information quality and auditability. A good data model is of little value unless it contains accurate, up-to-date data for a product structure and definition. The PIM product should:
 - Have strong facilities, in batch and interactive mode, for cleansing, matching, linking and identifying master information in different data sources to create and maintain the golden record. PIM vendors plus specialist data-quality partners will usually provide these facilities.
 - Set rules and specifications to determine where to source data and under which circumstances, including the ability to give preference to the most-dependable source.
 - Ensure underlying metadata (when used in place of or in support of master data) is visible to support transparency, reuse compliance and related auditability requirements.
 - Support a "data steward" role. The data steward will configure rules for matching and linking the data, review data quality metrics, take corrective actions, manage the merging or de-merging of

product records, uphold privacy access rights and configure the views for different roles.

3. Integration and synchronization. The PIM product will likely depend on integration middleware to provide a communication backbone for the bidirectional flow of product information between the central database and the other “spoke” systems, or between an organization’s PIM system and trading partners. The PIM product should be able to:

- Leverage a range of middleware products to data sources, including legacy data sources, and expose industry-standard interfaces
- Support integration with different latency characteristics and styles (for example, real time and batch)

4. Business services. Many leading organizations will use the new product master database as the basis for new business applications and processes. In the new SOA world of enterprise architecture, service-oriented business applications will call granular application services through Web services standard interfaces. A PIM that protects and complements the data integration layer with a layer of granular business services, built for an SOA environment and exposing Web services interfaces fits this new architectural vision.

5. Performance, scalability and availability. If the PIM supports operations and is tightly integrated with established systems and new applications, then there are likely to be serious demands on its performance, scalability and availability. The PIM should have:

- Proof points of different aspects of performance and scalability that match your requirements
- Appropriate availability characteristics regarding planned and unplanned downtime
- Customer experiences (Medium) – Successfully supported customers are important in a new market so this, coupled with support, maintenance and upgrades, also features prominently.
- Professional services – Provide internal professional service resources or partner with systems integrators with vertical-industry expertise, PIM domain knowledge, global and localized country coverage, and a broad skill set (for example, project management, system configuration) to support a complete project life cycle.

- Customer support – Provide satisfactory and demonstrated (referenceable) prompt service to its customers worldwide.

Market Responsiveness and Track Record (Medium)

Sales Execution and Pricing (Low)

The vendor must produce a sufficient number of quality clients and references with varying levels of sophistication and architectural styles that prove the viability of its PIM product in the market. References are used as part of the evaluation for each dimension on the Ability to Execute and Completeness of Vision axes of the Magic Quadrant.

Operations – This level of specificity was not included explicitly and was rolled into the viability rating above given the greatest challenge in this new market is in the quality of sales and marketing in understanding the industry market requirements and its ability to align the vendor’s delivery of that solution.

Table 1. Ability to Execute Evaluation Criteria

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

Source: Gartner

Completeness of Vision

- Market Understanding (High) – Vendor demonstrates a strategic understanding of PIM opportunities (for example, new application functionality or customer segments) and ongoing vendor market dynamics (for example, consolidation trends). Additionally, an understanding of the wider implications and position of PCDM within a company’s EIM and business process platform strategy are valuable to customers taking the strategic view.
- Business Model (Medium) – Vendor has a well-articulated strategy for revenue growth and sustained profitability. Key elements of strategy

include the sales and distribution plan, internal investment priority and timing, and partner alliances.

- Product strategy (High) – Vendor’s published “statement of direction” (or Gartner’s understanding of it) for the next two product releases to keep pace with or surpass Gartner’s vision of the PIM market. Technology and architecture figure strongly here. The vendor needs to offer a range of architectural styles to satisfy different implementation scenarios, including registry, coexistence (metadata sourced), and hub-based and centralized “system of record” styles. The vendor understands major technology/architecture shifts in the market and communicates a plan to leverage them, including migration issues that may affect customers on current releases. Specifically, how well has the vendor articulated its vision to support mainstream technology, as opposed to a proprietary stack, and a service-oriented business architecture?
- Vertical/Industry Strategy (High) – The vendor’s ability to articulate how it will service industry-specific needs from a “whole product” viewpoint (from delivered product and services required to gain value from the solution). Included are reviews of the vendor strategy for delivering product requirements (for example, retail, consumer goods and automotive aftermarket).
- Innovation (High) – Vendor needs to be able to lead this market and, in so doing, provide customers with an innovative solution and approach to service customer needs in a complex, heterogeneous environment. Innovation here implies a well-rounded and well-thought-out road map for solving PCDM issues.
- Geographic strategy (Medium) – Includes sales, marketing and support for complex, global companies.

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	high
Vertical/Industry Strategy	high
Innovation	standard
Geographic Strategy	high

Source: Gartner

Leaders

Leaders in the PIM market excel in performances. They deliver breadth and depth of integrated PIM functionality and have proven ability to deliver on large, enterprisewide and global implementations that extend PIM across the organization, outside of the primary industry domain, and across all geographies and numerous vertical industries. Leaders are successfully articulating a business proposition that resonates with buyers.

Challengers

Challengers demonstrate a clear understanding of today’s PIM market, but they have not demonstrated a clear understanding of the PIM market direction or are not well-positioned to capitalize on emerging trends. They often have a strong market presence in other application areas.

Visionaries

Visionaries display healthy innovation and a strong potential to influence the direction of the PIM market, but they are limited in execution or demonstrated track record. Typically, their products and market presence are not yet complete or established enough to reach leadership status.

Niche Players

Niche players do well in a small segment of the PIM market or have limited ability to be innovative or outperform other vendors in the market. They may be focused on a specific functionality, domain or industry, or have gaps relative to broader PIM functionality requirements. Niche players may also have limited implementation and support services, or they have not yet achieved the necessary scale to solidify their market positions.

Vendor Comments

Comergent Technologies

Comergent Technologies is an e-commerce vendor that acquired PIM vendor, Profile Systems, in 2004. Like many business application vendors, Comergent determined that integration for its customers would get more complex as application barriers between departments eroded across the enterprise. Comergent has invested heavily into C3 PIM, which supports some good functionality in the business service area (for example, workflows to help users with new product introductions). C3 PIM, combined with C3 Message Broker, enables Comergent customers to transform any outbound master data

request in any required format via standards-based SOA, which enables integration to any non-Comergent solution. As master data gets separated from applications, PIM systems will become more important (independent of e-commerce), so Comergent should see increasing requests during the next 18 months for stand-alone PIM. Today, Comergent has several stand-alone PIM customers.

Comergent C3 v.7.0 is the latest product release, and reached GA September 2005. The product has been deployed on Oracle and SQL Server. All customers are licensed behind the firewall. According to Gartner estimates, Comergent has about 12 customers, mostly supporting PIM in an e-commerce context. One customer extended the product's use into GDS.

Comergent should be included in evaluations driven by e-commerce. The vendor should be cautiously evaluated for stand-alone PIM. Granter expects to see an increased focus on PIM in 2006.

Extol

Extol has approximately 60 PIM customers. It only sells its PIM solution in the GDS market and does not sell into the heterogeneous PIM market (yet). Therefore, many Extol customers may not have sought a PIM offering yet. Extol's customer base extends across multiple segments, such as food, hard-line products and fast-moving consumer goods. Extol only sells PIM to suppliers, not retailers. The product supports many business services, ranging from new product introduction through event (promotion) collaboration.

The currently shipping product is 2.7, which was made available November 2005. The product has been deployed on Oracle, DB/2 and SQL Server. Extol is particularly well-suited for GDS-driven PIM projects and those for midsize companies between \$250 million and \$1 billion in revenue. Extol has seen a slowdown in PIM projects in 2005, although this is a result of the GDS adoption cycle, and in contrast the growing interest we see in the general market for PIM.

FullTilt Solutions

Fulltilt was one of the early stand-alone PIM vendors, along with Trigo (now IBM WPC) and Velosel (now TIBCO), to establish a credible PIM strategy. Originally selling into maintenance repair and operations, and industrial parts Web publishing, Fulltilt realized several years ago that PIM was going

to supplant catalog systems as the core system of record and reference for product data, so it began rounding out the solution accordingly. Now, Fulltilt has about 15 customers; of which, a couple are focused on PIM for GDS. Its product has business services related to new product introduction. Fulltilt is targeting consumer goods, hard-line products, industrial, healthcare and food. Although its business services for retail may not be completed, Fulltilt is looking for early-adopter retail clients to round out the product.

Its currently shipping Perfect Product Suite, release 5.1, which reached GA April 2005, is deployed on Oracle and Microsoft SQL Server. Early in 2005, Fulltilt embedded (OEM) a workflow engine to help users manage product data and develop their own business services.

Fulltilt should be included in an evaluation for stand-alone PIM, e-commerce offerings and GDS-related projects. Retailers should look to Fulltilt for PIM though as a developmental partner (through 2006).

GXS

GXS entered the PIM market through its acquisition of HAHT Commerce in 2004. GXS started selling PIM technology to underpin country data pools (see Note 4). GXS has laid a foundation on which to capitalize on the success of GDS. GXS refocused its energies in 2H05 to compete more aggressively in the PIM market inside the enterprise. We expect to see more attention to this effort in 2006. webMethods resells the GXS PIM offering as well.

Of the 50 or so GXS PIM clients Gartner estimates that 10 are hosted. Most are licensed behind the firewall. GXS's latest version of PIM Enterprise (and Express, a lighter version with limited workflow integration to back-end systems), v.7.7, reached GA May 2005. GXS sells to retailers (about nine clients) and suppliers. It should be evaluated for stand-alone PIM, to enable e-commerce, to support GDS and as a foundation for multichannel retail integration.

GXS has references from retail and manufacturing – across PIM and “lite” PIM (Express) solutions – and has successfully moved from its HAHT legacy. Because of the functionality of GXS's products and its focus on PIM, Gartner expects to see increased execution in 2006. Consider GXS for any PIM project in its core industry segments. Customers in Europe and Asia will be well-served because of GXS's global focus.

IBM

IBM WebSphere Product Center (WPC) has a strong client base in larger implementations, mostly in retail, consumer goods/electronics, and industrial manufacturing and distribution. IBM has expanded into automotive, pharmaceutical, aerospace and defense, where a dependency on clean, consistent product data is a prerequisite for RFID-based projects, particularly when B2B is required. WPC has good features for search, hierarchy and structured taxonomy maintenance. IBM offers plenty of technology for inbound and outbound integration, including the Ascential toolset (acquired by IBM in 2005), which includes extraction, transformation, loading and other services. IBM has taken a best-of-breed approach to PIM and acquired multiple tools to broaden its offerings related to its "information on-demand" vision. Some integration is preintegrated, but not all. Therefore, look at IBM as an aggregation of best-of-breed solutions and not a completely preintegrated solution for managing all forms of master data. This is not as critical for PIM, because WPC contains the bulk of functionality needed. There are many ways to service your needs until IBM rationalizes its product offerings, which is expected in 2006.

WPC 5.2, which is the latest release, reached general availability (GA) August 2005. The product has been deployed on Oracle and DB/2. All customers are licensed behind the firewall. According to Gartner estimates, IBM has about 80 PIM customers; of which, 15 or so are related to GDS and external syndication with a third-party data pool. WPC is one of the most scalable offerings in the market today for managing complex PIM requirements, such as up to 2,000 attributes per item across multiple channels at consumer electronic enterprises.

Midsized and large enterprises for retailers and manufacturers (as well as their suppliers) should include IBM in their evaluations.

Liaison Technologies

Liaison Technologies offers a primarily hosted PIM (and associated services) offering as part of its B2B solutions. Liaison has built a strong industry customer base in the paper industry segments built from its history (ForestExpress). From this heritage of being an industry hub, Liaison has built an effective set of tools for data integration to the enterprise and its own managed services to help with data cleansing and normalization, coupled with a

repository to store product master data. The current product is Content Director v.5.2, which reached GA October 2005.

Liaison has 70 customers, mostly all hosted. Of these customers, a few are working with Liaison to synchronize the data with external trading partners, referred to as GDS in retail and consumer goods industries. When hosted, not all PIM solutions are used by clients as the system of record and are most likely to be complemented with an item master (worse case) as part of an ERP or legacy system, or separate PIM repository (best case) behind the firewall.

Consider Liaison if you operate in the paper and related industries and seek hosted PIM as a complement to e-commerce projects or internal PIM projects.

Oracle

Originally part of the Advanced Product Catalog in Oracle PLM, the PIM Data Hub is now part of Oracle Fusion Middleware. It can be deployed as a stand-alone device or as an expanded item master that is part of its E-Business Suite. PIM Data Hub meets PIM requirements for Oracle ERP customers. The product has an extendible data model that enables users to quickly add product attributes. For an Oracle E-Business Suite strategy included the Oracle Item Master, the PIM data hub becomes the same repository as for the Oracle PLM solution.

The challenge facing Oracle in 2006 is selling its PIM solution independent of Oracle applications. The value proposition of PIM is predicated on ensuring a single view of product data across a heterogeneous environment that includes an independent item master (because there may be many). Oracle already has a sizable installed base for PIM built on the Oracle Item Master and has much lower penetration outside this customer base. This represents a sizable prospect base for Oracle, and includes the Retek (retail) and PeopleSoft/JD Edwards customers. Gartner expects to see progress in this direction in 2006, and the increased level of investments (for example, Retail PIM Data Hub is due later in 2007) seem to support this.

Gartner estimates that Oracle has about 10 implementations of PIM in heterogeneous environments that do not include Oracle Item Master and more than 100 as extended Item Master

environments as part of its E-Business Suite. Users of Oracle E-Business Suite should include Oracle in their evaluation of PIM. Users of Oracle business applications (including Retek, PeopleSoft and JD Edwards) who prefer an assembled best-of-breed approach and do not base their item master on those application stacks should look elsewhere for PIM until the end of 2006 when Oracle is expected to have extended its implementations and functionality to more heterogeneous (non-Oracle Item Master) environments.

Riversand

Riversand is one of the more recent startup vendors to appear in the PIM space. It is highly capable of implementing in heterogeneous environments and in some large-scale projects. One of the more interesting projects is with the Global Healthcare Exchange (GHX), which assists hospitals, providers, distributors and manufactures synchronize product data with more than two million items today (expected to be three million in 2006) across the healthcare network. This model emulates what is taking place in consumer/retail with the GDS initiative. The solution is strong on business services for more-complex, heterogeneous environments. The attribute management and rationalization services are stronger than most offerings in the market. The currently shipping product is 4.5, which reached GA September 2005. This is a Microsoft .NET-based technology offering, and Microsoft and Oracle databases are supported. Gartner estimates that Riversand has about 12 customers in consumer electronics, healthcare and manufacturing, and that it is targeting new business in North America (with about 50 employees). Being small and private is not holding the vendor back; it is growing well. North American companies in complex, heterogeneous environments should include Riversand in their evaluations.

SAP

In March 2005, SAP revised its strategy for SAP MDM (what was formerly MDM-E and originally A2i), which became SAP's core solution for managing more than just product master data. Today, the product plays well in the PIM market, but mostly for SAP ERP customers, although with some of the historical customer base using the original product for PIM-like functionality independent of any other SAP applications. Some SAP business application customers have adopted best-of-breed PIM solutions because SAP still has challenges convincing its

customers that SAP MDM can support functionality in the areas of hierarchy management. On the positive side, SAP has the leading vision for managing master data holistically among full-suite business application vendors; however, it has taken SAP two years to get to this point, and it has yet to convince customers that it can support all of the requirements related to PIM deployment as a system of record, and for syndication and publication/subscription to multiple external or consuming systems. Despite this historical situation, we expect to see SAP work in conjunction with its strategic customers to round out this functionality, even beyond its niche focus of product domain, in 2006.

The currently shipping product is SAP NetWeaver MDM 5.5 (Service Pack 3), which reached GA November 2005. SAP's architecture leads customers to conclude that, unless NetWeaver as a stack is strategic, SAP is not really focused on a stand-alone PIM strategy. Gartner estimates that there are approximately 50 implementations of MDM. The majority are for PIM and more than one-third of these still use the legacy A2i application. Customers emphasize their long-term commitment to SAP for managing master data beyond product with SAP MDM and are generally happy with the current functional support for PIM.

If NetWeaver is not part of your strategy, or if substantial amounts of data reside outside of SAP, then include SAP in your evaluation cautiously. We believe that by year-end 2007, SAP will compete with best-of-breed vendors in this market.

Acronym Key and Glossary Terms

B2B	business-to-business
BI	business intelligence
CDI	customer data integration
GA	general availability
GDS	global data synchronization
GDSN	Global Data Synchronization Network
GHX	Global Healthcare Exchange
J2EE	Java 2 Platform, Enterprise Edition
MDM	master data management
OEM	original equipment manufacturer
PCDM	product content and data management
PIM	product information management
PLM	product life cycle management
RFID	radio-frequency identification
SCP	supply chain planning
SOA	service-oriented architecture
SCM	supply chain management
WPC	WebSphere Product Center

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 Web site, 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.