

Magic Quadrant for Structured Data Archiving and Application Retirement

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VIEW SUMMARY

Structured data archiving applications help IT leaders retire legacy applications, reduce costs, and meet governance and compliance requirements. We evaluate vendors offering products and services that provide archiving for databases and data from enterprise applications such as SAP.

Market Definition/Description

This document was revised on 12 June 2014. The document you are viewing is the corrected version. For more information, see the [Corrections](#) page on gartner.com.

Structured data archiving describes the ability to index, migrate and protect application data in secondary databases or flat files typically located on lower-cost storage for policy-based retention. It makes data available in context and protects it in the event of litigation or an audit.

Structured data archiving addresses:

Overall storage optimization — It can reduce the volume of data in production and maintain seamless data access. The benefits of using this technology include reduced capital and operating expenditures, improved information governance, lower risk, and access to secondary data for reporting and analysis.

Governance — The technology preserves data for compliance when retiring applications. Structured data is often transactional and related to financial accounts or back-office functions (e.g., HR, patient enrollment in healthcare and other use cases that might be regulated) that require information governance, control and security, along with the ability to respond to related events such as audits, litigation and investigation. These and other requirements, such as maintaining information context, can prevent organizations from moving data to lower-cost tiers of storage, or adopting other do-it-yourself approaches.

Cost optimization and compliance — Structured data archiving and application retirement can result in significant ROI. Structured data in legacy systems, ERP and databases accumulates over years — and, in some cases, over decades — driving up operational and capital expenses.

Data scalability — The technology can manage large volumes of nontraditional data resulting from newer applications that can generate billions of small objects. Scalability to petabytes of capacity is required in these cases.

The desire to leverage archives as a secondary data store for big data analytics is driving the growth of the structured data archiving market. Newer market participants are offering alternate ways for managing archived data that involve virtual copies of databases, extreme compression and native SQL access.

Magic Quadrant

Figure 1. Magic Quadrant for Structured Data Archiving and Application Retirement

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STRATEGIC PLANNING ASSUMPTIONS

By 2017, structured data archiving will represent one-fifth of the information governance efforts in enterprises. By 2016, 75% of structured data archiving applications will incorporate support for big data analytics.

EVIDENCE

"Forecast: Enterprise Software Markets, Worldwide, 2010-2017, 3Q13 Update" and supporting Gartner research.

EVALUATION CRITERIA DEFINITIONS

Ability to Execute

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

Overall Viability: Viability includes an assessment of the overall organization's financial health, the financial and practical success of the business unit, and the likelihood that the individual business unit will continue investing in the product, will continue offering the product and will advance the state of the art within the organization's portfolio of products.

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

Market Responsiveness/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 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 initiatives, 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 and so on.

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 to 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 products 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 sets 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 vertical markets.

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.

Vendor Strengths and Cautions

dataglobal

Dataglobal is a privately held company headquartered in Heilbronn, Germany, with offices in Boston, Massachusetts, and Romania. The company has been in the digital archiving business for 22 years. It offers dg hyparchive as its archiving backbone, with dg erp supporting connectors for SAP ERP systems and dg connect as a generic API for archiving additional application content (e.g., JD Edwards). Dataglobal includes SAP and other structured content as part of its enterprise information archiving platform, which includes records management and e-discovery capabilities such as tagging and legal hold. SAP content is supported via SAP ArchiveLink and stored in the dg repository along with other unstructured content, such as files and email. The product provides functionally rich support for SAP, including archiving data from any SAP Business Suite application, SAP NetWeaver Business Warehouse (BW) and other content associated with SAP. Common services include automatic-retention policies, and search inside and outside the archive. Some analytics capabilities are available.

Dataglobal sells its product directly and through partners, including Dell. Most applications other than SAP are sold via partners that offer more customized solutions using dg connect. Eighty-five percent of the company's sales are in Europe, where its majority of SAP archiving installations are located. The product is sold as a cloud archiving service via T-Systems in Europe, and dataglobal is extending its support for the cloud via additional partners. Support is generally provided via partners that are experienced and know the product well. Pricing is based on the number of connectors (i.e., the number of SAP instances) or on volume for dg connect. To continue to grow in SAP archiving, dataglobal will look to expand partnerships through consultancies and resellers, such as the one established with Dell. There is no indication that dataglobal will expand beyond SAP archiving to areas such as big data analytics or application retirement.

Strengths

Strong classification, content analysis and metadata management capabilities are available through dg classification, supporting organizations that are looking for information compliance and governance as a primary use case.

Support services, intuitive ease of use and stability garner positive responses from designated references.

Cautions

The vendor does not support features such as graphical modeling of application data, creation of application-specific business rules and policies, data masking or database-to-database archiving.

Most organizations are using the dg hyparchive for smaller structured data archive environments. The product has no references for archives ranging in size from hundreds of terabytes to a petabyte or more.

Data Migration

Data Migration, located in Kreuzlingen, Switzerland, has been selling its application archiving product, JiVS, since 1997. Data Migration's core competencies are in SAP application retirement. The product provides a platform approach with options such as retention management and data masking supported through configuration. The company takes a different approach to SAP archiving than other vendors; rather than use standard SAP ArchiveLink interfaces, JiVS employs unique plug-ins, but achieves similar results with SAP Archive Development Kit (ADK) files stored in a file system. Data Migration has added support for GDPdU, a standard for enforcing the audit ability of archived data and documents. The firm supports custom legacy applications, offering consulting or training services. JiVS supports a number of structured data use cases, including archiving, application retirement, data integration and validation.

Data Migration gains 70% of its revenue through value-added resellers (VARs) and the rest through direct sales; 90% of its total revenue is generated in Europe. The firm targets large enterprises in Europe and relies on partners like T-Systems for support and deployment. Pricing is flexible, based on three models: per application plus database volume, per defined scope of applications to retire (fixed pricing), or per terabyte for retirement programs managed with JiVS. Data Migration's plans during 2014 include adding enhancements for application retirement management and common document archiving functions. In terms of its road map, Data Migration plans to strengthen its out-of-the-box configurations for nonretirement functions; this is an area that is highly needed.

Strengths

Data Migration has a history of supporting application retirement for legacy applications — including SAP R/3, SAP CRM, SAP Utilities (IS-U), SAP Supplier Relationship Management (SAP SRM), JD Edwards, Siebel, Oracle Financials and BaaN — and is viewed favorably for its total cost of ownership (TCO) and fast time to value.

For application retirement use cases involving large numbers of applications, Data Migration has demonstrated scalability.

Cautions

JiVS is a platform, rather than an application, and features such as complex retention management and data masking are available through programmatic and customized means, causing a reliance on professional services.

Data Migration is a small firm with the strategy to deliver projects via VARs. Needed resources, such as project management and support, can be stretched thin.

Delphix

Delphix was founded in 2008. Its initial products focused on testing/development use cases facilitated by database virtualization. Delphix recently announced support for application and database archiving, retirement and migration, in large part because its customers discovered that the product's database virtualization extended naturally to these use cases. The company offers the Delphix Agile Data Platform and Delphix Modernization Engine for archiving and retirement.

The product creates a full copy of all data associated with an application, including application binaries, associated files, virtual machines, the database and DBMS binaries and license keys, as a single secondary copy, which can be preserved for compliance or other purposes, and mounted as a virtual copy for near-immediate access. The product runs on VMware (delivered as a software appliance), and supports application migration to private, hybrid and public clouds, including IBM SoftLayer and SunGard. Because Delphix appears as a storage volume to application and database servers, access to archived data is via native database utilities. Retention is supported through the Live Archive feature. The TimeFlow capability supports transactionally consistent point-in-time access to historical database versions. Support for integrated masking was released in 1H14. The product can be used to preserve database data during a migration from one application version to another, or from Unix to Linux. Archiving SAP data is supported in the same way as other application data. Delphix's largest SAP customer supports 270TB of data as an archive. Delphix is an Endorsed Business Solution partner of SAP.

The product is predominantly sold directly. However, the company is increasing its archiving-specific channel with partners like Accenture, which is leveraging the product as part of its Application Retirement practice, and cloud-focused partners such as Cloud Technology Partners. Pricing is term-based (one year or three years) and per CPU. Customers license servers from Delphix and run as many copies as the server will support.

Strengths

Delphix's data virtualization approach to application archiving with compression and filtering, coupled with integrated data protection features, enables significantly reduced storage costs (20-to-1 consolidation across database copies is typical).

Delphix's responsiveness and technical acumen are strong points. Delphix has approached problems in creative ways to deliver what customers need.

Cautions

Database support is currently limited: The product supports only Oracle, Microsoft SQL Server, PostgreSQL and Sybase Adaptive Server Enterprise (ASE).

Delphix's solution is not appropriate for looking to store database content in enterprise information archiving systems that support flat-file repositories containing multiple content types. Delphix operates at the block level, rather than the database schema level, so archive granularity is per database.

EMC

EMC offers EMC InfoArchive, a new product entrant in the structured data archiving market. EMC InfoArchive became available as a product in 2013, but has existed as a service offering since 2009. InfoArchive contains elements of the Documentum enterprise content management (ECM) technology, and takes the approach of delivering an archive that brings unstructured and structured content together. InfoArchive addresses four distinct use cases: (1) archiving unstructured content, such as images and files, which includes report content such as print-stream-generated statements and bills through its partnership with Crawford Technologies; (2) archiving structured database content for which a partnership with Solix provides connectors to databases and prebuilt integrations to common packaged applications; (3) archiving relational database management system (RDBMS) tables; and (4) archiving complex information sets that aggregate multiple data records and content files to a single business record.

Structured data is archived to InfoArchive in a compressed XML format, and is searchable via a standard Web services API that leverages XQuery. Database-to-database archiving is not supported. InfoArchive has found initial success with application retirement in financial services, retiring legacy applications such as mainframe reporting systems, and is broadening its support for production applications and additional content sources via connectors built by its partner ecosystem. EMC provides Archive Services for SAP to deliver SAP ArchiveLink-based archiving of SAP data, documents and print lists as part of the Documentum portfolio.

EMC sells InfoArchive via its Information Intelligence Group sales team. EMC leverages its storage sales forces, including the Data Protection and Availability Division group, to identify opportunities that can be combined with archiving platforms such as EMC Centera and Data Domain. Pricing is per terabyte. The long-term vision for InfoArchive is to enhance and deliver better analytics through integration with Pivotal, an EMC company. This holds promise as customers look to leverage, repurpose and use big data as a competitive advantage.

Strengths

InfoArchive can support many different and unique content types, an important quality for application retirement use cases.

The product offers strong retention/records management and indexing, and user-friendly advanced search.

Cautions

InfoArchive is a new product that requires a solution-based approach that may need to rely on partners for success.

Customers have cited issues with setting up backups.

HP

HP offers HP Structured Data Manager for database archiving and application retirement. The product is mature, due to its long history in this market dating back to 1998. HP had let the product languish for a few years; but, due to its belief in the current market opportunity, HP is making significant investments to regain market share in database archiving and application retirement.

Initially built for Oracle Databases, the product now supports a broader variety of applications and underlying databases, including Microsoft SQL Server and IBM DB2. Prebuilt Integration Packs support common enterprise applications; other apps are supported as custom implementations. Database-to-database and database-to-file archiving are both supported, and the product is integrated with HP Intelligent Data Operating Layer (IDOL), enabling search and retrieval across production and archive databases. Native applications, Open Database Connectivity (ODBC)/Java Database Connectivity (JDBC)-compliant reporting tools and HP's viewing technologies provide data access. The designer interface provides business rule modeling. Data masking is provided natively. On-premises, private, hybrid and public cloud (such as HP Cloud Services) implementations are supported. Apache Hadoop (Hadoop Distributed File System [HDFS]) is supported as an archive target. The product is integrated with HP Records Manager (formerly HP TRIM software) for records management. SAP archiving is supported via SAP ArchiveLink.

HP Structured Data Manager is sold directly from an information management and governance sales team formed in late 2013, as well as through partners. It is offered as part of the HP Autonomy information governance portfolio, or stand-alone. Sales teams supporting HP's backup, recover and archive solutions, as well as the newer HAVEn technology stack, are also enabled to sell and support the product. Pricing is per source database, regardless of source type or data volume. HP likely will have to attract and retain talent in professional services in structured data archiving to be successful, as the firm neglected this area during the 2009 to 2012 time frame.

Strengths

The product has demonstrated success with cloud implementations. A number of reference

customers have deployed it alongside HP Autonomy's enterprise information archiving products in the HP Autonomy cloud.

Customer support, responsiveness, knowledge and product flexibility are positive attributes, particularly compared with competitive offerings. HP runs the solution in its IT department to support these claims.

Cautions

No native deduplication capabilities are provided. Deduplication must be provided by the archive target.

Structured Data Manager's performance with respect to archiving very large volumes of data was not as fast as small implementations. Performance is typically faster if data is limited.

IBM

IBM delivers application retirement, structured data archiving, data masking and test data management through InfoSphere Optim. SAP data archiving is available through IBM Content Collector for SAP. These products are often packaged in conjunction with other InfoSphere offerings as part of information life cycle governance (ILG), a holistic data governance strategy typically aimed at large enterprises.

IBM InfoSphere Optim provides structured data archiving for hundreds of common off-the-shelf and custom applications, including distributed systems and mainframes. Archived data is stored in highly compressed binary files supported by a large selection of storage repositories; including write once, read many (WORM) storage platforms. InfoSphere Optim provides e-discovery functionality, including legal hold, and integrates with IBM Atlas eDiscovery, as well as a variety of third-party e-discovery offerings. IBM offers robust indexing and access to data via a Google-like interface for searching, ODBC and JDBC reporting tools, or its native UI. InfoSphere Optim ships with a supported version of IBM's Hadoop distribution InfoSphere BigInsights, and can be integrated with third-party Hadoop distributions. Tight integration between IBM PureData Systems for Analytics and InfoSphere Optim provides built-in capabilities to archive directly to IBM PureData Systems for Hadoop. InfoSphere Optim analyzes relationships across various repositories to provide a unified view of data called Complete Business Objects. The portfolio includes dormant data analysis that allows administrators to identify which data and applications should be archived. Integrated data masking is supported. IBM InfoSphere Optim's largest customer has archived more than 1PB of data. The IBM Content Collector for SAP, a component of IBM's enterprise content management portfolio, leverages the SAP ADK and SAP ArchiveLink functionality to store data and documents in an IBM FileNet repository.

In an effort to simplify pricing, IBM recently moved to a capacity-based pricing model, and offers InfoSphere Optim in an Enterprise Edition and a Workgroup Edition. InfoSphere Optim is primarily a direct sale through IBM and is available on-premises, in a hybrid model and in a cloud-based model with third-party cloud offerings or as part of IBM SoftLayer. An appliance is available for archiving high data volumes. IBM likely will look to simplify its cloud delivery options and seek to get greater leverage from its SoftLayer acquisition.

Strengths

The IBM InfoSphere Optim team has broad vertical industry awareness, which has translated into focused implementation and consulting engagements.

The product is mature and feature-rich, including support for a broad set of data sources, ease of deployment, and support for business rules as part of the archive and data access processes.

Cautions

Training, documentation and online resources are areas in need of improvement.

Database-to-database archiving is supported; however, it requires a two-step process whereby data is archived to proprietary compressed immutable binary files first, then to another database of the same or different type.

Informatica

Informatica sells Informatica Data Archive. The product supports a wide array of applications and underlying databases resident on distributed systems or mainframe platforms, including Oracle, SQL Server and IBM DB2. The product also supports archiving from Apache Hadoop, IBM PureData System for Analytics and Teradata, as well as SaaS applications, such as from salesforce.com. Informatica includes a capability it calls Smart Partitioning, which allows administrators to place related records across tables into a single database table space, and then effectively exclude this partition from database production operations, including queries and reports. This "archive in place" ensures that the database remains intact, retains data for compliance and can improve performance.

The product supports database-to-database and database-to-file archiving (leveraging a columnar compressed/deduplicated format). The archives can be accessed via the original application, SQL/ODBC/JDBC reporting tools, keyword-based search or an integrated report builder. Retention, legal hold and masking are supported at the record level. Utilities for monitoring data growth and application performance are also available. The latest version of the product has been integrated with the company's flagship Informatica platform. SAP archiving is via SAP ADK and SAP ArchiveLink. Informatica ILM Nearline is available to archive data from SAP NetWeaver Business Warehouse to the Data Archive repository. Private cloud deployments are supported. The company plans to release support for the public cloud in 2014.

Informatica benefits from having a large customer base using its PowerCenter products. Customers choose the data archiving product based on their relationship with Informatica, as well as the new product integration. The majority of sales are direct, and Informatica has partnered with Oracle for a joint solution focused on the Data Archive Smart Partitioning functionality. The product is available in a Standard Edition and an Advanced Edition differentiated by features, with a number of additional cost options available. In 2014, Informatica will look to deliver vertical applications in areas such as healthcare and cloud-based offerings.

Strengths

Informatica offers enterprise structured data archiving for a broad set of applications, packaged and customized. The solutions have the ability to archive on-premises and cloud applications, such as from salesforce.com.

Database connectivity, reporting and visualization, and compliance functionality, legal hold, retention management and auditing are strong points.

Cautions

Informatica Data Archive has complex pricing. The total cost of the overall solution can be an inhibitor to potential buyers.

Informatica's Data Archiving implementation and consulting teams are areas with room for improvement, specifically with respect to knowledge transfer.

OpenText

OpenText offers OpenText Archiving for SAP Solutions, including OpenText Archiving for SAP and OpenText Document Access for SAP, for archiving SAP data and content. The SAP archiving application is based on the 14-year-old archiving technology the company acquired when it bought IXOS Software in 2004. OpenText complements SAP archiving by offering archiving solutions for unstructured content (including email, files and SharePoint). In addition to the SAP archiving products, OpenText offers the InfoFusion Integration Center and InfoFusion Discovery Platform for application decommissioning, data archiving and information governance for non-SAP RDBMS content. The products offer consolidated extraction, transformation and loading (ETL), advanced search, content analytics, and connectors to a wide variety of structured and unstructured data sources. Content from all products is stored in the OpenText Content Suite. Retention management, auto-classification, sampling for quality assurance, legal hold and various workflows are among the features included in the solutions. Direct access to archived SAP data is supported via SAP ArchiveLink. Access to data stored in the InfoFusion database is accessible using various methods, including browsing, search and reporting. Comprehensive records management is included in the solution. The archiving products can be deployed on-premises or in a hybrid cloud. Amazon Web Services and Microsoft Azure are supported as target repositories.

OpenText is the market share leader for SAP archiving and has over 2,000 organizations using these products. Data archiving and document access are sold directly by OpenText, and resold by SAP as SAP Archiving by OpenText and SAP Document Access by OpenText, providing a go-to-market advantage when buyers seeking archiving solutions work directly through SAP. OpenText's SAP archiving products are priced per named SAP user. InfoFusion Discovery Platform pricing is based on a combination of connectors and seats for various functions, such as search, classification and content remediation. OpenText will look to build more connectors and integration points to expand into application retirement use cases, a market driver for structured data archiving.

Strengths

OpenText has strong records and retention management capabilities aligned with its mature SAP products.

OpenText provides an integrated enterprise content management and enterprise archiving (both are structured and unstructured content) approach that enables enterprises to manage a wide array of content types and applications through common interfaces.

Cautions

For organizations seeking an archive system without complementary, comprehensive ECM, OpenText software and professional services are expensive.

For non-SAP structured archiving, there is no support for archiving based on the determination of application business logic. Knowledge of the database schema is required.

PBS Software

PBS Software (PBS) has been offering SAP archiving solutions since 1991. PBS is focused 100% on supporting SAP and does not offer solutions for other application types or platforms. It provides a broad set of solutions and utilities for system decommissioning, data extraction, data analysis and dedicated industry-specific solutions in SAP environments. PBS ContentLink supports access to archived content directly through the native SAP interface, is SAP ArchiveLink and WebDav certified by SAP (BC-ILM 3.0) for SAP Information Lifecycle Management (ILM)-aware storage, and maps directly to all SAP ERP modules. PBS CBW NLS and NLS IQ provide "nearline" support for SAP NetWeaver Business Warehouse. Archived data is stored in a compressed, deduplicated format in SAP IQ or Actian Vectorwise as a nearline repository. It offers retention management and legal-hold support in addition to integrating with SAP ILM. PBS products are deployed in midsize and very large enterprises.

PBS sells its offerings mainly to Europe-based organizations, with 68% of its customers located in EMEA, 25% in North America and 7% in Asia/Pacific region. PBS is supported by VARs such as Dolphin

Enterprise Solutions (aka Dolphin) in the U.S., through which it has a number of large corporate clients. Pricing is per SAP production system, client and named user for the ERP offering, and per SAP NetWeaver Business Warehouse users for that offering. In 2014, PBS will look to enhance its Nearline Analytic Infrastructure solution; this proposed offering will support SAP systems with classical databases, help prepare migration to Hana and work with Hana as a nearline database.

Strengths

PBS has a great deal of knowledge about SAP archiving, with more than 20 years of experience working in and selling to the SAP community.

User adoption of PBS's products is high, as it leverages SAP user experiences and ties directly with SAP.

Cautions

Some reference customers would like PBS to provide more round-the-clock hours of technical support, rather than only European time zone support.

PBS products require more deployment time than average, compared with structured data archiving vendors for similar capabilities and capacities.

RainStor

RainStor is a privately held company founded in 2004. It offers what the company calls an "analytical archive" for compliance, historical analysis or application retirement. At the core, the product provides a highly compressed row/columnar hybrid repository that enables up to 20x to 40x compression along with fast access and retrieval. A wide variety of underlying databases are supported, as well as Teradata, SAP Sybase IQ, IBM PureData System for Analytics and Oracle Exadata data warehouses. Access to archived data is via native SQL with database-specific extensions. The product supports data retention, tagging and legal hold at the record level, as well as various WORM storage platforms. It currently offers native support for Apache Hadoop (HDFS) as an archive target, and data masking/encryption is included with the product. Private, hybrid and public clouds (Amazon Simple Storage Service [S3]) are supported. SAP archiving is not supported, except through partners.

The product is typically deployed in very large environments. Customers' archive capacity is generally more than 300TB. Many of the company's customers are managing more than a petabyte of data either across a variety of applications or within one application. Applications supporting large volumes of small objects, such as call data records or financial trades, are well-suited for RainStor.

The company has historically sold almost exclusively through partners and OEMs (as an embedded repository component for other archiving products), but is moving to increase its direct sales channel in 2014. The company supports deployments of prepackaged application archives with Informatica, IBM and Solix. RainStor has a sales partnership with Teradata. Its sales partnership with EMC was recently enhanced due to integration with EMC Isilon to support a SQL database running on scale-out network-attached storage (NAS) or native Apache Hadoop. Pricing is by capacity (raw TB, uncompressed). In its latest product release, RainStor added support for Securities and Exchange Commission (SEC) Rule 17A-4 WORM-compliant storage, which should align well with RainStor's strategy to work with EMC and support financial services.

Strengths

RainStor's market-leading compression, along with its integration with leading storage platforms, data warehouses and Hadoop, makes it particularly suitable for leading-edge big data environments with large volumes of data.

RainStor gets extremely high marks from reference customers for customer service and support.

Cautions

While RainStor provides retention, legal hold and other repository management functions, it does not provide front-end application business logic for identification of data for archiving, and must rely on partners for this capability, if required.

No UI is available for management operations, including archiving processes. Interaction with the system is via command line interface or Java API. ODBC/JDBC interfaces are supported for query.

RSD

RSD is a 40-year-old privately held firm headquartered in Switzerland. It offers RSD Glass, which is marketed as an information governance solution, and RSD Glass Repository (previously named RSD Folders), which is embedded as the optional archiving repository. RSD has more than 1,200 customers using its archiving solutions, with a small subset storing SAP archived data.

RSD ingests data from legacy applications, ECM systems, SharePoint and other systems into RSD Glass for classification, information governance and information lifecycle management (ILM). RSD leverages the SAP ArchiveLink protocol to ingest SAP data and to provide reporting access by SAP for the archived data. Archived data is stored in the original file format, and the repository provides legal hold capabilities for archived information. The RSD policy engine enables the enforcement of policies across RSD and non-RSD repositories. RSD Glass can be installed on-premises, hosted by RSD or deployed in a cloud-based model.

RSD's licensing is based on a number of variables that includes users, platforms and connections. Fifty percent of its revenue comes from EMEA, with 65% sold direct through RSD. The largest RSD SAP

archive has approximately 70TB of data, and RSD has clients with multiple petabytes of information archived. Clients have cited the reliability of RSD's products as a strong point. RSD doesn't have tangible improvements planned for structured data archiving in its road map, and is not a primary focus for the company.

Strengths

RSD Glass has the ability to view data natively from applications.

RSD's ability to manage structured, unstructured and physical records is a unique strength.

Cautions

RSD's stand-alone archiving business is largely a legacy one, and the company is more focused on archiving through its information governance strategy with RSD Glass.

RSD's interface lacks some user-friendly features, such as the ability to drag and drop files into and out of RSD.

Solix Technologies

Solix Technologies (Solix), based in Santa Clara, California, sells an archiving product called EDMS. Solix has demonstrated an ability to scale down to meet small application archiving opportunities while also actively competing for large-enterprise deals. Solix supports numerous databases, with an emphasis on active archiving in Oracle environments. It provides out-of-the-box support for many packaged and custom applications, including JD Edwards, Oracle E-Business Suite and PeopleSoft. It has a small SAP customer base, and plans to increase support for SAP archiving in 2015. Solix supports database-to-database and database-to-file archiving, the latter to both comma-separated values (CSV) and XML file formats. Columnar compression/deduplication is available via integrated Sybase IQ or RainStor, and archiving of database partitions is supported. Solix can support Apache Hadoop as a repository for unstructured and structured data archiving and application retirement. Archived data is accessed via the original application when data is stored in an archive database via full-text search or the Solix Application Portfolio Manager, which provides access to data from retired applications without the requirement for SQL queries. Integrated masking and encryption are available.

In 2014, Solix is adding support for unstructured content and looking to grow its customer base through partnerships with EMC for its InfoArchive product, and with Kronos, which embeds Solix EDMS into its workforce management suite. Solix can be delivered as an appliance called the Solix ExAPPS or as software, and includes support for cloud-based archiving through Rackspace or Amazon. The product price is based on volume, with an additional charge for prebuilt archiving templates; subscription pricing is available. A free downloadable version is available on the Solix website.

Strengths

Solix's ease of use, technical support and strong professional services are all strengths — key areas when dealing with legacy application environments.

The company offers the widest variety of deployment models (including on-premises, cloud and appliance) and pricing options (including perpetual, subscription and appliance) compared with other vendors in this market.

Cautions

For custom enterprise applications, some references have cited slow ingestion speeds for EDMS as an area in need of improvement.

Solix's EDMS is a platform and needs more out-of-the-box configurations for integration with databases and applications.

ZL Technologies

ZL Technologies (ZL) focuses primarily on database-to-database archiving, with a history of retiring custom legacy applications, in addition to IBM Notes (formerly Lotus Notes) applications and databases. ZL Unified Archive is built with a grid architecture that supports the large-scale environments the company targets. The product includes support for archiving Oracle and Microsoft SQL Server data as part of its single unified repository strategy. The company believes that archive repositories will increasingly support structured and unstructured content, and continues to increase the variety of content types supported, including a Hadoop-enabled infrastructure for easy interface with the Hadoop ecosystem.

Support for application data is via an API enabling the creation of connectors into structured data sources or by using ZL DirectExtract. ZL DirectExtract is a utility that can be used to identify metadata, database schemas and other database constructs to create a metadata model to extract data from source systems. Archived data is stored in ZL's file system, which provides support for compression, encryption and various security features. For all archived data, ZL Unified Archive provides comprehensive records management, compliance, analytics and e-discovery support in one unified platform.

ZL targets large-enterprise organizations as customers. ZL Unified Archive is available direct from the company and through channel partners, as well as a number of large, specialty cloud providers (including RenewData, SunGard and Viewpointe) that utilize ZL as the technology powering their cloud archiving services. Pricing is per GB for on-premises deployments, and either monthly per user or per GB for cloud deployments.

Strengths

ZL's retention management, legal hold and left-hand-side e-discovery capabilities are well-suited for regulated environments such as financial services, where audits, litigation and investigation are commonplace.

ZL Technologies is very responsive to customer issues, and product support is rated highly according to reference customers.

Cautions

Some capabilities for structured data archiving, such as support for SAP, are still on the company's road map and slated for release.

ZL Technologies is a new participant in the structured data archiving market and has fewer reference customers in unstructured content archiving compared with other vendors in this market.

Vendors Added and 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's appearance 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. It may be a reflection of a change in the market and, therefore, changed evaluation criteria, or of a change of focus by that vendor.

Inclusion and Exclusion Criteria

To be included in the Magic Quadrant for Structured Data Archiving and Application Retirement, a vendor must:

Offer products that meet the definition for structured data archiving and application retirement detailed in the Market Definition/Description section of this report.

Be the developer of the product, and not just a reseller or VAR.

Support a growing base of customers, including at least 15 enterprise customers that are using the software in a production environment.

Have a presence in at least two geographies (North America, EMEA, Asia/Pacific region, South America) worldwide and be industry-independent.

Provide its solution as an on-premises software product, a SaaS offering or some combination.

Achieve more than \$3 million in new license or maintenance revenue annually.

Evaluation Criteria

Ability to Execute

Product: An evaluation of the features and functions of the vendor's structured data archiving solution, including those related to:

Archiving to an alternate (nonproduction) database or file format.

Maintaining referential integrity (even for the most complex data models).

Seamless access to archived data from the original application or via alternate methods (search, reporting).

Security, access control and audit logs.

The road map should support plans for big data initiatives and analytics, including Apache Hadoop.

Higher ratings are:

Assessed for support for data validation, broad application support (including for custom and legacy applications), data retention and purge management, data discovery, data masking and test data management, and support for legal hold.

Assigned to solutions with strong archive architectures, policy-based archiving and storage management features, quality of user experience, and support for unstructured content.

Overall Viability: Includes an assessment of the vendor's overall financial health, the financial and practical success of the structured data archiving business unit, and the likelihood of the individual business unit to continue to invest in a structured data archiving solution.

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

Market Responsiveness/Track Record: Includes the ability to respond, change direction and be flexible as market dynamics vary. This criterion also considers the vendor's history of responsiveness.

Marketing Execution: The effectiveness of the vendor's marketing programs, and its ability to create awareness and mind share in the market. It assesses whether the messaging is clear, whether the

vendor provided references that used the unique features of the product in its target environment, and whether the promotion of the product on the company website is effective.

Customer Experience: The quality of the customer experience based on reference calls and Gartner client teleconferences (inquiry).

Operations: The ability of the organization to meet its goals and commitments in an efficient manner. Past performance is weighted heavily.

Table 1. Ability to Execute Evaluation Criteria

Evaluation Criteria	Weighting
Product or Service	High
Overall Viability	High
Sales Execution/Pricing	High
Market Responsiveness/Record	Medium
Marketing Execution	High
Customer Experience	High
Operations	Medium

Source: Gartner (June 2014)

Completeness of Vision

Market Understanding: Ability of the vendor to understand buyers' needs, and to translate those needs into the appropriate features in the structured data archiving product, along with the ability to anticipate market trends (for example, the requirement to support heterogeneous applications and databases, including SAP, e-discovery or unstructured content) and to adapt quickly via new features, partnerships or acquisitions.

Marketing Strategy: A clear set of messages that positions the product and differentiates it from competitors, consistently communicated throughout the organization and externalized through the website, advertising, customer programs and positioning statements.

Sales Strategy: The vendor's strategy for selling to its target audience, including an analysis of the appropriate mix of direct and indirect sales channels.

Offering (Product) Strategy: An evaluation of the vendor's strategic product direction, including an analysis of its road map.

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

Vertical/Industry Strategy: The vendor's strategy for meeting the specific needs of individual vertical markets and market segments (for example, financial-industry-regulated employee supervision, or state and local government information retention and disclosure requirements).

Innovation: The vendor's product leadership and ability to deliver archiving features and functions that distinguish the vendor from its competitors.

Geographic Strategy: The vendor's strategy for penetrating geographies outside its home or native market.

A vendor's Completeness of Vision is evaluated based on its ability to convincingly articulate its product direction and demonstrate innovation in meeting customer needs, enabling the vendor to more effectively compete in the market. The credibility of a vendor's vision is weighed against its past Ability to Execute and against previously stated plans. Market understanding should be the guiding factor in new product development to ensure that the engineered product meets customer needs. Managing the complexity of archiving environments requires innovative approaches that will distinguish leaders and delight customers.

Table 2. Completeness of Vision Evaluation Criteria

Evaluation Criteria	Weighting
Market Understanding	High
Marketing Strategy	Medium
Sales Strategy	Medium
Offering (Product) Strategy	High

Business Model	Low
Vertical/Industry Strategy	Low
Innovation	Medium
Geographic Strategy	Low

Source: Gartner (June 2014)

Quadrant Descriptions

Leaders

Leaders have the highest combined measures of Ability to Execute and Completeness of Vision. They may have the most comprehensive and scalable products. They have a proven track record of financial performance and an established market presence. In terms of vision, they are perceived as thought leaders, with well-articulated plans for ease of use, product breadth and how to address scalability. For vendors to have long-term success, they must plan to address the expanded market requirements for structured data archiving and application retirement, including support for Apache Hadoop and big data, support for the cloud, solid relevant SAP archiving functionality, and a strong administrative UI.

Leaders must not only deliver to current market requirements, which continue to change, but also anticipate and begin to deliver on future requirements. A cornerstone for Leaders is the ability to articulate how these requirements will be addressed as part of their vision for expanded archive management. As a group, Leaders are considered part of most new-purchase proposals, and have high success rates in winning new business. There are four Leaders in this Magic Quadrant: IBM, Informatica, HP and Solix Technologies.

Challengers

Challengers can execute today, but have a limited or an evolving vision. They have capable products and can perform well for many enterprises. These vendors have the financial and market resources and capabilities to become Leaders, but may have elected to focus more heavily on one vertical industry or one structured data archiving use case. The sole Challenger in this Magic Quadrant is Delphix.

Visionaries

Visionaries are forward-thinking, but their execution has not propelled them into a leadership position. These vendors are differentiated by product innovation, but they have not achieved the sales and marketing success required to give them the high visibility of Leaders. In the case of this Magic Quadrant, they may be hampered by their product immaturity or lack of structured data archiving features and capabilities. The Visionaries in this Magic Quadrant are EMC and RainStor.

Niche Players

Niche Players are narrowly focused on an application type, such as SAP, offer some degree of structured data archiving as an adjunct to enterprise information archiving (unstructured content archiving, such as email, files or SharePoint) or offer broad capabilities without the relative success of their competitors in other quadrants. This is acceptable for a number of buyers, and some of the Niche Players' offerings are used successfully by very large global enterprises. Niche Players may focus on a segment of the market and do it well, or they may simply have modest horizons and lower overall capabilities compared with competitors. Others are simply too new to the market or have fallen behind, and, although they're worth watching, they have not yet developed complete functionality or the Ability to Execute. Niche Players in this Magic Quadrant are dataglobal, Data Migration, OpenText, PBS Software, RSD and ZL Technologies.

Context

Placement on the Magic Quadrant is based on Gartner's view of a vendor's performance against the criteria noted in this research. Gartner's view regarding vendor placement on the Magic Quadrant is heavily influenced by surveys completed by the vendors, and several hundred inquiries and one-on-one conversations at Gartner conferences conducted during the past 12 months with our clients on the topic of structured data archiving. The Magic Quadrant methodology includes the solicitation of references from each vendor, and Gartner then conducts reference checks from a set of those customers.

This Magic Quadrant does not rate only a product's quality, capabilities and features. The product is an important part of the rating, but the vendor's ability to acquire and support customers is equally important, as is its ability to grow product and service revenue. A vendor that offers a strong, technically elegant product, but is unable or unwilling to invest in marketing and sales to generate revenue and growth, will find itself unable to invest sufficiently in development.

Market Overview

Based on Gartner's estimates, the size of the structured data archiving and application retirement market is \$270 million, and growing at a compound annual growth rate (CAGR) of 10%. The use of this technology has long been viewed as a cost avoidance measure to contain operational and capital expenditures related to data growth, and as a measure to improve factors such as application performance. The market is changing and expanding due to growth in data, application retirement, information governance and big data analysis opportunities.

Trend Toward Big Data Analytics and Petabyte-Scale Archives

The growing use of Apache Hadoop, increasing data warehouse volume sizes and the accumulation of legacy systems in organizations are fostering structured data growth. These factors are leading enterprises to understand how to reuse, repurpose and gain critical insight from this data. Apache Hadoop is capable of storing large volumes of data. Thus, organizations are using HDFS to store structured data, as well as information such as social and machine data that doesn't fit into databases. Many organizations are looking to add structure and meaning to this information repository, beyond just using it as a low-cost means of storage. Structured data archiving vendors have responded by adding support for Apache Hadoop as a data source and a target. Gartner expects to see this emerging requirement for Hadoop support going beyond baseline storage management to include support for more analytic tools (for example, from Tableau Software) and other reporting mechanisms to the point where the line between archiving and active use will blur. Big data analytic tools will become a baseline component of structured data archiving tools by 2016. The various distributions of Hadoop, such as Hortonworks and Cloudera, are increasingly emphasizing information life cycle and retention management in Hadoop, which will put pressure on structured data archiving vendors to innovate further in this area.

Growing Importance of Information Governance in Structured Data

Structured data from applications is an easy target for external auditors. They are experienced in identifying the relevant applications and lack of controls that may occur in protecting valuable financial data. In some respects, it's an easier task than identifying unstructured content, such as spreadsheets that contain financial data that may be scattered and managed lightly in the enterprise. Auditors may raise a red flag if the legacy application is so old that it's no longer supported or loosely managed. Migrating data to an upgraded version of the application or to an alternate format may mitigate this problem of maintaining structured data.

Most of the IT focus on preparing for and responding to e-discovery requests has been for unstructured data. However, there have been numerous cases where structured data has been a target for discovery requests. The discovery of structured data presents challenges, and organizations want to ensure they can respond quickly to requests for information when that information is not accessible from its native application. By taking an active and systematic approach to application retirement, organizations can purge data that no longer has business relevance, not only to reduce costs for maintenance, but also to reduce the cost of responding to e-discovery requests by making data more searchable, defensible and easier to preserve.

Application Retirement as a Leading Use Case for Structured Data Archiving

Organizational mergers and acquisitions, data center consolidation, and migration to cloud-based applications have accelerated the requirement to retire legacy and redundant applications. Application retirement presents numerous cost benefits and efficiencies that further fuel this trend.

Although the storage savings and positive effects of reduced complexity are highly attractive, the relationship between applications and data makes application retirement a highly complex task. Enterprises must understand and develop requirements for data access and long-term retention, and execute policies based on those objectives. Identifying candidates and developing a business case for retirement based on potential costs savings must accompany these efforts.

Structured data archiving solutions can help in application retirement. Application retirement typically involves the transfer and retention of the underlying database and requires consideration of a number of factors, including ongoing access requirements, preservation of data and its business logic, governance and retention requirements, and data storage. In response to application retirement trends, structured data archiving vendors have developed solutions to retire legacy applications and their associated infrastructure. Greater interest in application retirement is contributing to the growth of the structured data archiving market.

Role of SAP in Structured Data Archiving and Retirement

The structured data archiving market includes solutions that archive data from applications such as those from SAP. As is the case for any application, previous SAP instances need to be retired and the data managed systematically for cost and governance reasons, with support for ongoing access to data. In many instances, vendors such as IBM and Informatica provide solutions for archiving directly from databases, as well as active archiving, and application retirement for SAP and other ERP and CRM applications. Numerous vendors are certified and support SAP archiving for active archiving through the SAP ADK and XML Archive API. Gartner receives a steady stream of inquiries asking about alternatives, indicating that, although solutions exist, lack of credible SAP expertise and high prices have plagued adoption. Like the interest in application retirement, some vendors have identified these gaps in a well-established market and are making inroads against long-established players. As part of the Magic Quadrant for Structured Data Archiving and Application Retirement, Gartner evaluated and identified SAP archiving and retirement solutions.

Vendors to Watch

In addition to the 13 vendors evaluated in this Magic Quadrant, numerous other vendors offer archiving products specifically for structured data. The following list includes vendors that provide, or have plans to provide, support for structured data archiving and application retirement:

Actifio has a copy data virtualization platform called Copy Data Storage (CDS), which takes a different approach than other vendors to managing structured data. It looks at long-term retention of backup data that can be actively used and repurposed. Actifio supports databases

such as MS SQL, as well as business applications such as SAP and Oracle E-Business Suite.

CommVault provides Simpana, a single-platform approach to backup and archiving, and supports data and document archiving for SAP modules. CommVault has stated its road map intentions for supporting additional structured data archiving capabilities in future product releases.

Gimmel, with its ERP-Link product, takes the approach of enhancing and using Microsoft SharePoint as a strategic enterprise repository for managing content, including SAP data and documents. Gimmel provides strong domain expertise and technology related to records and retention management that can be applied to structured data.

SAP offers NetWeaver Information Lifecycle Management, which archives SAP data and provides retention management capabilities. NetWeaver Information Lifecycle Management helps organizations comply with audit and compliance requirements, and consolidates SAP instances.

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