June 13, 2006

The Forrester Wave™: Enterprise Search Platforms, Q2 2006

by Matthew Brown

TECH CHOICES

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Fast Search & Transfer And Autonomy Lead In Our Product Evaluation

by Matthew Brown
with Connie Moore and Lucy Fossner

EXECUTIVE SUMMARY

Forrester evaluated leading enterprise search platform vendors across approximately 150 criteria and found that Fast Search & Transfer (FAST) and Autonomy established early enterprise search category leadership — thanks to their extensive search capabilities, broad platform focus, and significant market presence. Endeca Technologies is also a leader in this space with its mature search management tooling and increased focus on offering search as a platform. Google, IBM, and Microsoft are all strong performers but lack the breadth of capabilities and focus to be considered more broadly as search platforms. Entopia came in as a strong performer with its good support for basic search scenarios, particularly in collaboration environments. Convera, a previous leader in enterprise search, appears to be exiting this market altogether, with declining market share and an ill-defined future strategy.

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NOTES & RESOURCES

Forrester conducted evaluations in January 2005 and interviewed eight vendor companies: Autonomy, Convera, Endeca Technologies, Entopia, Fast Search & Transfer (FAST), Google, and IBM. We also interviewed 16 user companies.

Related Research Documents

"Google Search Appliance Gets Smarter"
April 19, 2006, Quick Take

"Google Redefines Site Search Device Competition"
January 27, 2006, Quick Take

"Autonomy Acquires Verity And Enterprise Search Market Leadership"
November 9, 2005, Quick Take

"Searching For A Better Search"
August 29, 2005, Tech Choices

FORRESTER®

TARGET AUDIENCE

Chief information officer, enterprise architecture executive, information management executive

ENTERPRISE SEARCH PLATFORMS MARKET LANDSCAPE

Enterprise search is fast becoming mission-critical software for enterprises. Over the past five years, vast improvements in the quality of public search engines has raised the bar for what employees expect to get from search inside the enterprise. As a result, search technology is taking center stage, and it's playing an important role in markets as diverse as eDiscovery, business intelligence, security, media and entertainment, and eCommerce. Over the next five years, we'll see more and more companies turn to search solutions to help navigate the rising tide of digital information. Look for further industry consolidation as infrastructure providers like IBM and Oracle enter the market; incumbent pure plays like Autonomy, Endeca, and FAST differentiate their platforms with value-added solutions; and corporate search undergoes relentless pricing pressure from competitors Google and Microsoft.
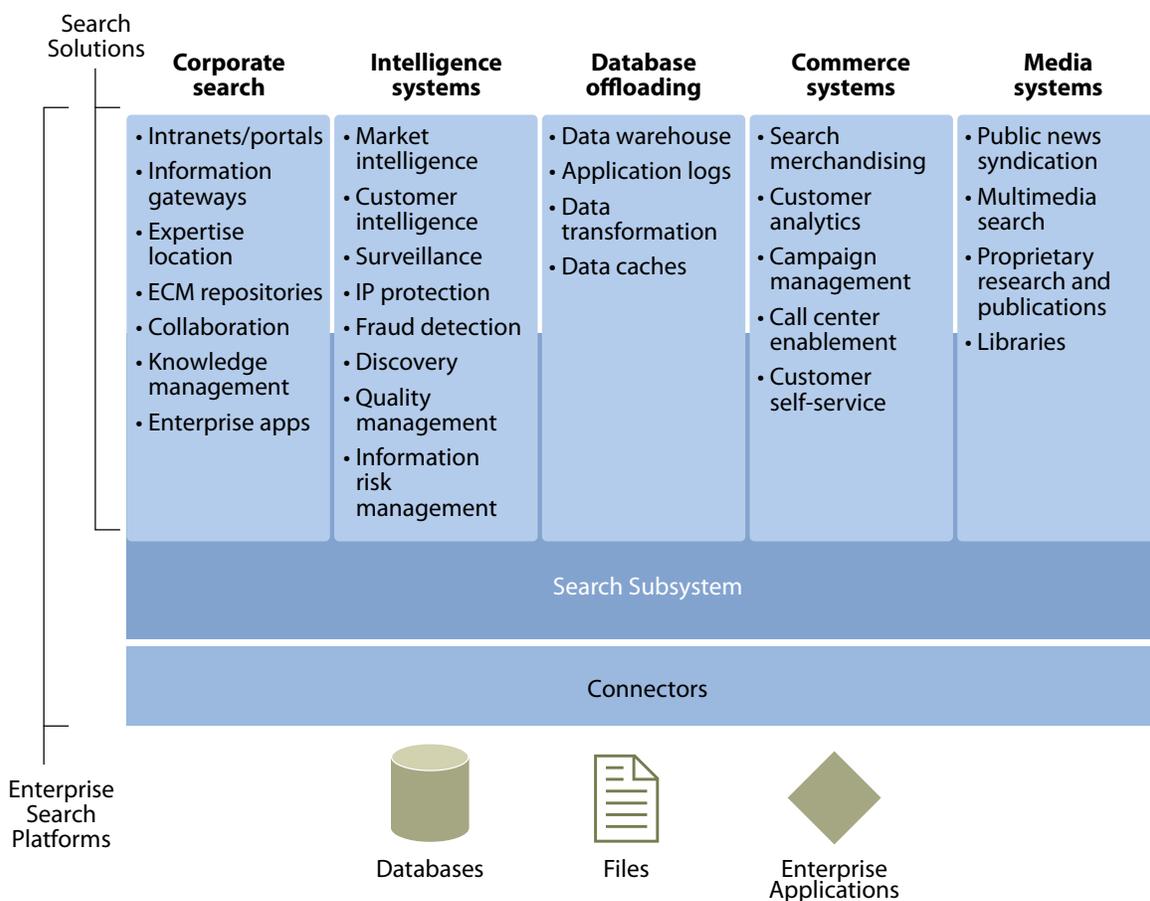
The enterprise search market breaks down into two major segments: platforms and solutions. Search solutions address specific market needs, such as corporate search, intelligence systems, database offloading, commerce, and media search. Search platforms are offered by companies that leverage a common search subsystem — including query processor, index, and connector technology — to address multiple search solution markets (see Figure 1). Corporate, commerce, and media search solutions are the most mature and fiercely contested categories of the enterprise search market, while intelligence systems and database offloading are emerging categories. By this definition, only four of the reviewed vendors —Autonomy, Endeca, FAST, and IBM — offer multisolution search platforms, while other competitors have strengths in particular solution categories.

With solutions pioneered by Verity in the mid-1990s, companies embraced enterprise search as a way to easily retrieve documents and data spread across file systems, databases, and enterprise applications. The basis of competition in the enterprise search platform market focused on three things:

1. **Connectivity breadth and depth.** Search vendors offer connectors to every current and legacy file type, content repository, and enterprise application. Connectors pump data from these sources on a scheduled basis into a central index where it can then be queried by end users.

2. **Scalability.** Search scalability is measured along three dimensions: *index capacity* (how many total documents can be indexed into the system), *indexing rate* (how rapidly documents can be added or reprocessed into the index), and *query-processing speed* (how many queries per second [QPS] the engine can process).

3. **Add-on capabilities.** Search vendors included capabilities like automated and manual classification tools for building taxonomies, reporting capabilities, management tooling for manipulating relevance calculations and indexing processes, and security controls for controlling user access to information in the index.

Figure 1 Enterprise Search Platform Market Landscape

Search Solutions	Corporate search	Intelligence systems	Database offloading	Commerce systems	Media systems
	• Intranets/portals • Information gateways • Expertise location • ECM repositories • Collaboration • Knowledge management • Enterprise apps	• Market intelligence • Customer intelligence • Surveillance • IP protection • Fraud detection • Discovery • Quality management • Information risk management	• Data warehouse • Application logs • Data transformation • Data caches	• Search merchandising • Customer analytics • Campaign management • Call center enablement • Customer self-service	• Public news syndication • Multimedia search • Proprietary research and publications • Libraries

Search Subsystem

Connectors

Databases   Files   Enterprise Applications

Enterprise Search Platforms

Source: Forrester Research, Inc.

CURRENT TRENDS WILL RESHAPE THE ENTERPRISE SEARCH MARKET OVER FIVE YEARS

Major change is underway in the market for enterprise search products. The following trends are already changing the shape of the market:

- **Consumer search sets expectations**. The bar for overall search experience has been set quite high by Google's public search engine, through which consumers have learned that search is a highly effective tool for quickly finding the information they need. Search purists may argue that Google is not as accurate or precise as other engines, but its 41% market share among public search engines says that, for the average user, it gets the job done.[1] Now companies are asking why they can't have the same search experience inside the enterprise as they have outside. The rising tide of expectations is causing companies to rethink prior search technology decisions.

- **Buyers are more price-sensitive.** Incumbent search platform vendors face a dilemma: The economic benefits of enterprise search technologies are difficult to quantify in most cases. Unlike specific uses for search — such as search-based product merchandising, customer self-service, and syndicated news and information in media — it's not easy or credible to quantify the benefits of finding internal information on corporate intranets. Facing ever-increasing return-on-investment scrutiny, IT departments are under pressure to remove operating costs — and high-priced enterprise search license fees are a common target.

- **Large incumbent pure-play search vendors get eroded by commodity players . . .** Lower-priced search alternatives from Google, Microsoft, Thunderstone Software, Coveo Solutions, ISYS Search Software, and X1 Technologies are all improving their feature sets for intranet search, while still keeping prices well below the six-figure deal sizes so common in larger enterprise search platforms. All of these players are improving their scalability and feature sets, and are offering more advanced and secure connectors. This will continue to push large pure plays like Autonomy and FAST into specific solution areas, such as intelligence systems, media systems, commerce systems, and others.

- **. . . While pure plays get consolidated and attacked by infrastructure vendors.** The last year has seen Autonomy acquire Verity; IBM acquire iPhrase Technologies and announce its WebSphere Content Discovery Server; Oracle acquire TripleHop Technologies and announce its Oracle Secure Enterprise Search 10g; and Microsoft and SAP both announce significant investments in search capabilities. Currently, offerings from infrastructure vendors are fairly limited but plan to see these vendors gain traction in serving basic corporate search needs as these offerings mature.

IT DECISION-MAKERS: ASSESS FIVE ASPECTS OF ENTERPRISE SEARCH PLATFORMS

Different segments of the search market have very different requirements. For example, high scalability is often irrelevant in corporate intranet scenarios, whereas it's essential in many consumer-facing commerce sites and public information portals. Similarly, security proves very important in scenarios in which documents and data are highly sensitive, such as within the intelligence community, defense contractors, financial services, and even within functions like HR and payroll. But secure search indices are often less important for best practice document repositories and general research repositories, where access is available to everyone. But across all scenarios, enterprise search buyers should focus on five critical areas:

- **Visibility into search engine processes.** It's challenging to make enterprise search work well given the heterogeneity of enterprise data sources — ranging from multiple formats and overloaded file systems to databases and enterprise applications — many of which contain very little searchable text and metadata. Knowing what's happening inside the search engine is the first step to improving how search works in an enterprise. This requires a search engine that not only logs search activity but also provides on-board reporting for all aspects of how users interact with it.

- **Control of search processes.** Unlike the public internet where copious descriptive HTML pages with rich hyperlinks, anchor tags, metadata, path names, font size, and page formatting provide cues to the search engine as to what's most relevant to users, enterprise networks offer few of these hints. As a result, IT and business analysts must have explicit control to bias the core search algorithm when necessary. Biasing control includes both relevance weighting for particular classes of content (e.g., news, people, customer information, research documents) and explicit business rule triggers to spawn multiple searches or to present specific content within the context of the search results. Control also includes how host repositories get indexed. Modern search engines should enable IT managers to do "extract transform load (ETL)–like" operations to build indices containing higher-quality searchable data than the raw data sources contain.

- **Delivery of search solutions to end users.** Historically, making changes to a search installation was costly, requiring expertise in index collection building, API-level programming, user interface design, and domain expertise for evaluating the quality of results. Compounding the expertise availability problem is the time required to do root cause analysis on search issues like null results and inaccurate results, and deliver an improved search experience to end users. High-quality search platforms should, at a minimum, offer flexible templates for quickly building and rebuilding search experiences. Optimally, they should also have full management dashboards that enable administrators to write and test business rules, to specify relevance weighting profiles for particular collections, and to manage the indexing process. Several products also provide WYSIWYG controls for building and managing UI elements, substantially reducing the time it takes to build, tune, and improve search.

- **Search engine architecture.** IT likes solutions that grow with it and frequently doesn't mind paying as long as the additional cost is commensurate with the additional value it gets from the product. The same is true for search engines, for which search architectures should enable scaling out an installation with low-cost hardware — especially for gains in index capacity. Scalability is measured along three dimensions with search engines: query-processing speed (QPS), index capacity, and indexing speed. But not all search solutions have the same requirements for scalability along all three dimensions. For example, knowledge management systems frequently don't need documents to appear in the index as soon as they're published, but new syndicates and media companies do. Ultimately, the architecture should match the need, and needs vary substantially depending on whether buyers are small departments searching a set of file systems or online media companies serving results to millions of consumers.

- **Search engine security.** How important is security? Like anything, it depends. The first important thing to realize is that modern search engines operate like very high-speed, read-only databases. Therefore, if you've got stringent controls over the databases you index, you'll likely need a secure search engine, because real data gets stored in the index. Security checks in search engines are performed at runtime (when a set of results is queried), index time (as the indexer crawls the data source), or both. There are three models for search engine security: 1) the engine stores access control lists (ACLs) in the index itself; 2) the engine checks with the host repository before results are presented; and 3) front-end application parameters are added to the user's search query at execution time to ensure he/she sees only what he's entitled to. Vendors with different approaches to this problem must be evaluated by IT buyers to ensure a fit with particular security requirements.

SEARCH PLATFORMS EVALUATION OVERVIEW

Enterprise Search Wave Criteria Target Capabilities Breadth, Strategy, And Presence

Forrester assessed the current state of the enterprise search platform market using our Wave methodology. We evaluated the overall strengths and weaknesses of eight leading vendors in the space to understand the key decision points IT buyers must consider when evaluating product offerings. After examining Forrester customer inquiries, customer interview findings, and vendor and expert interviews, we developed a comprehensive set of evaluation criteria. We evaluated vendors against approximately 150 criteria grouped into three high-level categories, including current offering, strategy, and market presence (see Figure 2).

Figure 2 Evaluation Criteria

CURRENT OFFERING	
Query capture and processing	How extensive is the product's query capture and processing capability?
Indexing and classification	To what extent does the system support indexing and classification?
Results display and manipulation	To what extent does the system support results display and manipulation?
Administration and security	How extensive are the product's administrator and security features?
Core technology architecture	What is the product's core technology architecture?
Maintenance and support	What level of maintenance and support services are offered with the product?

STRATEGY	
Product strategy	How competitive is the product's strategy?
Corporate strategy	How competitive is the vendor's corporate strategy?
Financial resources to support strategy	Is the vendor profitable, and what is the vendor's cash flow? Does the company have sufficient revenues, profits, and cash flow to support its strategies?
Cost	What is the cost of this product?

MARKET PRESENCE	
Installed base	How large is the vendor's installed base of customers for this product and for all products?
Revenue	What is the vendor's revenue over the past four quarters?
Revenue growth	What is the vendor's year-over-year revenue growth over the past four quarters?
Revenue sources	What are the vendor's different sources of revenue (e.g. direct sales, reseller, OEM, etc.), and what is the ratio of revenues from each channel?
Systems integrators	How many integrator partners have completed three or more deployments of any version of this product in the past 18 months?
Services	How strong are the vendor's implementation and training services?
Employees	How many engineers does the vendor have dedicated to this product? How big is the vendor's sales presence?
Technology partners	How strongly do technology partners support this product?

Source: Forrester Research, Inc.

Vendors Selected For Breadth Of Addressable Search Market And Customer Mindshare

Forrester included eight vendors in the assessment: Autonomy, Convera, Endeca Technologies, Entopia, Fast Search & Transfer (FAST), Google, IBM, and Microsoft. These vendors were chosen because of one of the following:

- **Breadth of market focus.** The company, at a minimum, addresses the basic need of corporate search but also offers extended search capabilities to serve search solutions like intelligence systems, commerce systems, media systems, or others.

- **Top of mind among customers.** The vendor has significant market share, receives frequent mentions by clients in Forrester's inquiry and consulting services, and is also frequently short-listed for Requests For Proposals (RFPs).

FAST AND AUTONOMY LEAD IN ENTERPRISE SEARCH, FOLLOWED CLOSELY BY ENDECA

The enterprise search platform market is changing very rapidly, with IT infrastructure vendors just entering the market, and high-end pure plays struggling to differentiate upstream. The Wave evaluation uncovered a market in which (see Figure 3):

- **FAST and Autonomy are clear leaders.** With its Enterprise Search Platform 5 (ESP 5) release, FAST gained product leadership — effectively addressing the broadest set of market needs — from basic corporate search to very large, high-scale search applications for demanding buyers in media and financial services. The FAST product gets high marks for all five criteria IT should look for in an enterprise search product: visibility, control, delivery, architecture, and security — and is quickly becoming an enterprise search standard for major corporations.

  Autonomy, with its 2005 acquisition of Verity, has bought its way into a substantial market presence and is clearly the most financially stable and viable of the other top players, FAST and Endeca. The combined product boasts in excess of 350 functions for processing, transforming, indexing, and searching unstructured information contained in its highly secure index. But now that integration of Verity's operations is complete, the company must prove itself to wary Verity K2 customers, demonstrating that it can modernize and improve the core search product set with relevant capabilities — something many customers question, given Autonomy's broad mix of businesses. As Autonomy looks to emerging growth areas like intelligence systems, call center technology, security, surveillance, and enterprise risk and compliance, it must not forget its large enterprise search platform base that uses the product predominantly for more basic corporate search purposes.

- **Endeca's great product lives in the shadow of the leaders' large scale.** Endeca has a winning product, comparing very well across important categories. It offers extremely strong, business-friendly tools for understanding and managing all aspects of the search process, and, as a result,

many companies that first used Endeca for online retail applications are now bringing the product behind the firewall to power internal enterprise search applications. What the company has in product greatness, however, it lacks in market presence, comparing less favorably than other leaders in installed base, dedicated engineers, sales presence, and technology partnerships. Only recently has it begun to reposition its products as a broad-based information access platform, making it more relevant in a broader range of search solutions. This repositioning will only bear fruit if Endeca also increases its technology partnerships and its direct and indirect sales horsepower.

· **Google and IBM increasingly pose a significant threat to pure-play incumbents.** Google's search appliance is increasingly competitive with higher-priced systems — especially for corporate search scenarios — with recent improvements in capacity, security, and interoperability with enterprise applications. But the product still lacks many native advanced capabilities like classification tools, robust reporting, and control over query and indexing processes. Nevertheless, Forrester believes that the availability of Google Search Appliance (GSA) and Google Mini have actually expanded the size of the enterprise search platform market, adding new, more value-oriented buyers to a market in which they were previously priced out.

Simultaneously, Google and IBM are driving price erosion for higher-end systems, especially in scenarios in which buyers were over-served by higher-end systems. IBM's Content Discovery server is still very new to the market and lacks the level of integration found in other products, but it will become a very viable product over the next one to two years, leveraging its deep access into content integration technology and customer experience-focused capabilities from the heritage iPhrase technology.

· **Microsoft and Entopia lack capabilities in one or more dimensions.** Microsoft's search offering embedded in SharePoint 2003 lacks important functionally and has spawned an entire market of third-party search products that offer a better search experience for SharePoint buyers. While the upcoming version that ships with SharePoint Server 2007 for Search will improve upon the 2003 version, it remains functionally lacking, failing to provide the tools necessary to make it a broad-based search platform.

Entopia, a small vendor with a compelling product for small-scale collaborative environments, uses techniques like document aging and document usage to improve the relevancy of search results. But the product is missing many of the capabilities necessary to make it a viable solution for broad search applications — which is reflected in its relatively small market presence.

· **Convera shows signs of exiting the enterprise search platform market.** Convera revealed very little of its future plans for enterprise search and, in the past year, has seen declining market presence. The company appears to be shifting its relatively limited resources into a product

offering called Excalibur — not the original Excalibur engine but instead a hosted search offering that indexes and categorizes the World Wide Web. The existing RetrievalWare product is outdated, with none of the more advanced capabilities offered by Autonomy, FAST, and Endeca. Given the company's shift in strategy, Forrester thinks it's unlikely that Convera will carry this product forward in any competitive way.

This evaluation of the enterprise search platform market is intended to be a starting point only. Readers are encouraged to view detailed product evaluations and adapt the criteria weightings to fit their individual needs through the Forrester Wave Excel-based vendor comparison tool.

Figure 3 Forrester Wave™: Enterprise Search Platforms, Q2 '06
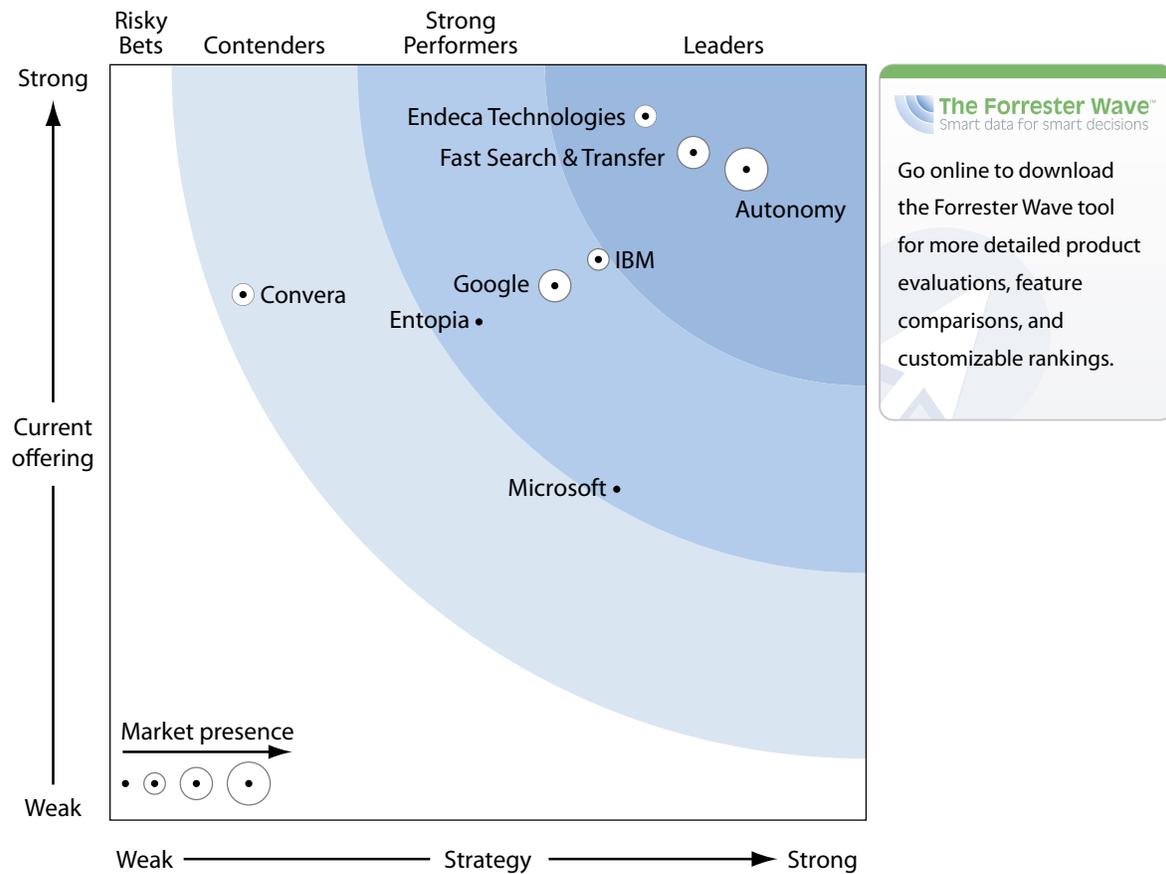
Source: Forrester Research, Inc.

Figure 3 Forrester Wave™: Enterprise Search Platforms, Q2 '06 (Cont.)

	Forrester's Weighting	Autonomy	Convera	Endeca Technologies	Entopia	Fast Search &Transfer	Google	IBM	Microsoft
CURRENT OFFERING		4.31	3.48	4.66	3.30	4.42	3.54	3.71	2.19
Query capture and processing	10%	4.37	3.70	4.38	2.75	4.52	2.01	3.63	0.42
Indexing and classification	15%	4.65	4.19	4.31	2.31	4.75	1.55	3.16	0.95
Results display and manipulation	10%	3.70	3.65	4.05	2.95	4.10	3.05	4.60	0.90
Administration and security	30%	3.70	2.89	4.90	3.35	3.66	4.26	3.89	2.94
Core technology architecture	25%	5.00	5.00	5.00	3.70	5.00	4.30	3.00	2.65
Maintenance and support	10%	4.50	0.00	4.50	4.50	5.00	4.50	5.00	3.75
STRATEGY		4.21	0.88	3.54	2.44	3.86	2.94	3.23	3.35
Product strategy	25%	4.00	0.50	4.00	1.00	4.50	1.00	3.50	5.00
Corporate strategy	30%	4.50	1.50	4.50	3.00	3.50	2.50	1.50	2.00
Financial resources to support strategy	30%	5.00	0.00	3.00	3.00	5.00	5.00	5.00	5.00
Cost	15%	2.40	2.00	1.90	2.60	1.20	2.90	2.70	0.00
MARKET PRESENCE		4.21	2.18	2.75	1.01	3.53	3.50	2.98	1.15
Installed base	30%	4.40	1.90	3.20	1.10	2.00	4.50	3.80	1.50
Revenue	40%	4.00	2.00	2.00	1.00	4.00	3.00	3.00	1.00
Revenue growth	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Revenue sources	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Systems integrators	10%	5.00	5.00	5.00	1.00	5.00	5.00	0.00	0.00
Services	5%	2.40	0.00	2.40	0.00	3.20	0.00	1.60	0.00
Employees	10%	4.20	0.80	2.40	1.00	4.20	3.20	4.60	3.00
Technology partners	5%	5.00	4.50	2.50	1.50	5.00	2.50	2.00	0.00

All scores are based on a scale of 0 (weak) to 5 (strong).

Source: Forrester Research, Inc.

VENDOR PROFILES

Leaders

Autonomy, FAST, and Endeca offer the broadest set of capabilities across their platforms and have had the most success across a broad range of solution areas. Our analysis shows that FAST has rapidly gained share in this market relative to competitors across both direct and indirect sales channels. But Autonomy will be tough to beat, given its large market presence and sales force, and deep professional services organization. Endeca's product excellence is paying dividends in substantial quarter-over-quarter revenue growth, making it a very viable contender for category market share leadership in several years.

- **Autonomy leads in security, capabilities breadth, and corporate strategy.** Autonomy's IDOL platform compares well in most major categories and provides the broadest array of tightly integrated capabilities. The company has the most complete API for processing unstructured information — text, video, audio, images, and multimedia formats — into a central index for storage and retrieval. Technologically, Autonomy's key differentiators include conceptual search, security, and scalability.[2] The company also owns the core technology for indexing multimedia formats and document file formats (Verity KeyView Filters), whereas its competitors OEM this technology from third parties.

  Weaknesses include limited on-board reporting capabilities and a missing query-processing rules engine for overriding default full-text search behaviors. Additionally, customers complain that the heritage Verity K2 product is difficult to work with and say they are looking to Autonomy to modernize its capabilities.

  Autonomy's corporate strategy as a holding company for six independent business units — Aungate, etalk, Verity, Virage, NCorp, Cardiff Software, and a joint venture in China's consumer search engine blinkx — give it a broad base of businesses to hedge individual market downturns and ensure ongoing viability. IDOL's best fit is as a broad-based standard enterprise search platform serving high-scale, high-security search applications, or as a content intelligence platform for analyzing patterns and trends in information for purposes that include market intelligence, eDiscovery, competitive intelligence, risk management, intellectual property protection, and information security and surveillance solutions.[3]

- **FAST shows rapid growth and strong modern search management tools.** FAST compares well across all dimensions IT should consider when buying enterprise search products. The latest release, ESP 5, is particularly strong in management tools for business analysts, and the system scales efficiently to very demanding scenarios. With approximately 440 employees and growing, FAST will prove tough for smaller competitors to keep pace with. The company's strategy includes a heavy focus on OEM sales, providing a reliable revenue stream and a very large, defensible installed base. OEM partners give the technology high marks for ease of integration and extensive capabilities. FAST's product best fits as a broad, standard enterprise search platform or as a search solution for mission-critical enterprise applications, such as large-scale data and information repositories and consumer-facing applications in information-intensive industries like media and entertainment.[4]

- **Endeca is still growing its market presence but is a leader in product excellence.** Endeca's platform does a superior job with easy-to-use search management tools that enable nontechnical users to easily join data from disparate sources into a unified core search index. This is valuable to organizations with managed content repositories that can take advantage of the tool to deliver highly relevant results driven by explicit or implicit rules and search relevance weighting factors. The product offers most of the major capabilities evaluated and partners with third parties to fill minor gaps in its offering.

However, despite having a great product, Endeca compares less favorably in strategy and market presence; for instance, the vendor's approximately 300 customers have primarily concentrated on searching structured data repositories, such as databases. Endeca has recently repositioned and reconfigured its products as a broader information access platform — which should lead to a broader set of applications the technology can serve. Enterprises that best fit Endeca's software are organizations with: 1) revenue streams directly related to findability, such as B2C and B2B vendors, or distributors; 2) highly valuable information repositories, such as extensive research libraries or R&D repositories; 3) information access alternatives that are high-cost channels, such as customer call centers; and/or 4) information that is critical to the company's competitive differentiation (e.g., research companies, media companies, directory providers). Endeca's primary industry targets include retail, manufacturing, distribution, financial services, and information publishers, but, increasingly, the product is expanding beyond these verticals. The Endeca enterprise search platform best suits media and commerce solutions as well as high-end corporate search in which enterprises leverage managed content repositories like databases, enterprise applications, and enterprise content management systems.[5]

Strong Performers

Google, IBM, Microsoft, and Entopia were strong performers with good success in one or two enterprise search solution areas. Google, IBM, and Microsoft will be the ones to watch in corporate search, in which companies use the products for searching across medium- to small-scale document repositories, collaboration systems, portals, and intranets, and in which high-volume query processing, indexing speeds, and capacities are not required. Corporate search will undergo significant price declines over the coming years as Microsoft releases its SharePoint Server 2007 for Search — a direct competitor to the Google Mini — and IBM, Oracle, and others offer value-oriented pricing for their products. These vendors performed well in the following areas:

- **Google excels with simplicity and dominates buyer mindshare.** The Google Search Appliance (GSA) gets high marks for ease of use and deployment. The GSA also has a variety of built-in service and system health monitors for administrative functions like index check pointing and monitoring, RAID diagnostics, and others. The most recent release of the product in April 2006 boasts improved security controls, increased capacity, and a feature called OneBox for Enterprise that lets the appliance index and visualize information from a variety of enterprise applications, such as Salesforce.com, Cognos, and Oracle's E-Business Suite.[6] Currently, the GSA's best fit is in corporate search scenarios, in which companies want a good means of searching across intranets and enterprise applications at a value.

  Product weaknesses include the lack of a robust on-board query-processing rules engine and limited integrated reporting capabilities. The product also lacks many capabilities — such as taxonomy management and entity extraction tools — that are commonly found in pricier search engines. This keeps the appliance from being highly relevant in a broad array of applications —

like online commerce and content intelligence systems — where these capabilities become important. Finally, the GSA's per-appliance pricing model makes it less competitive in high-scale scenarios in which buyers can save money using software-only engines that can distribute search processes — including query processing and indexing — across multiple servers without incurring additional license costs.[7]

· **IBM is building out a secure, open, semantically aware search platform.** WebSphere Content Discovery Server is a newly announced but strong product for searching corporate information repositories. The product is most differentiated in its secure gateways to content stored in Lotus Notes, DB2 Content Manager, WebSphere Portal, and others. Other distinctive capabilities include a powerful natural language processing engine, WYSIWYG control over index creation, business rules, and search user interfaces. The product also has very strong reporting capabilities in its on-board OLAP Business Intelligence engine. Further, IBM supports an open Unstructured Information Management Architecture (UIMA), giving it API-level interoperability with best-of-breed text analytics engines.

Market presence is a weakness, though. Currently, IBM has approximately 250 to 300 customers in total between the heritage iPhrase OneStep and IBM OmniFind product lines. Further, the vendor is still rationalizing the brands and search components acquired over the past year — which it intends to complete in 2006. The Content Discovery Server is not relevant in very high-scale scenarios, such as consumer-facing media and public information search portals. The best fit for this product includes secure, corporate search where content is buried in disparate IBM product repositories and in medium- to small-scale consumer-facing commerce and customer self-service scenarios. [8]

· **Currently lacking, Microsoft search shows strong future promise.** The current Microsoft SharePoint Portal 2003 search compares poorly in most categories that we evaluated. The current offering lacks even basic search capabilities like spelling correction, white-bar Boolean commands, and word-root stemming for expanding queries. As a result, most companies' employees either don't bother to use SharePoint search or rely on third-party search engines for searching SharePoint content. Indeed, Microsoft itself makes extensive use of independent products from Coveo Solutions, Mondosoft, ISYS Search Software, and others to extend SharePoint capabilities.

But the next wave of enhancements to Microsoft search technology shows real promise. The company will standardize on a common search architecture across all of its products, including SharePoint Server 2007, Office Tools, and Outlook, and is embedding a search index within the Vista operating system. We'll likely see some real improvements to search within the context of Microsoft applications relative to previous versions, but, currently, enterprises should augment SharePoint Portal 2003 with a third-party product to improve search quality in existing implementations.[9]

- **Entopia's growth is driven by collaboration and knowledge management.** The product's most distinctive capability is its use of implicit ranking techniques that drive the quality of search results. Because the product also includes the Entopia K-Bus content repository, the search engine can use criteria like the age of document, frequently accessed documents, and recently accessed documents as factors that drive the search relevancy score. Entopia also has good support for relevance algorithm biasing to suit specific needs and offers integrated capabilities for visualizing search results by the concepts they contain.

  Entopia's biggest weakness is the lack of a broad platform strategy. The product offers few of the capabilities that other competitors provide for controlling search processes, such as query processing, business rules, taxonomies, and indexing — which limits the breadth of relevant uses. Nor does the product serve very high-scale scenarios well, such as consumer-facing media or commerce sites. K-Bus search is best suited for workgroup collaboration-style search in which clients use the K-Bus content repository.[10]

Contenders

Convera articulated no clear plans for enhancing its RetrievalWare product. Inquiries with several existing Convera customers indicated that the company is trying to squeeze additional license revenue out of customers, despite what looks like a wholesale strategy shift away from installed enterprise search platform software. Our assessment revealed the following:

- **Convera is losing share in the growing enterprise search market.** Historically a competitive offering in enterprise search, Convera's RetrievalWare product is rapidly losing market share. The product compared well in indexing and classification categories, with strong support for taxonomies that allow users to search in one language and retrieve results in another. However, RetrievalWare lacks many of the capabilities present in more modern search engines for reporting on and managing the search experience. Convera shared very little with Forrester for this report, but public documents indicate that the company is shifting its strategy and resources into a Web search offering named Excalibur, a completely different offering than the Excalibur product of yesteryear. Given the company's relatively small size and declining RetrievalWare revenues, Forrester does not believe that it has the resources necessary to carry forward both the RetrievalWare and Excalibur offerings.[11]

SUPPLEMENTAL MATERIAL

Online Resource

The online version of Figure 3 is an Excel-based vendor comparison tool that provides detailed product evaluations and customizable rankings.

Data Sources Used In This Forrester Wave

Forrester used a combination of four data sources to assess the strengths and weaknesses of each solution:

- **Vendor surveys.** Forrester surveyed vendors on their capabilities as they relate to the evaluation criteria. Once we analyzed the completed vendor surveys, we conducted vendor calls where necessary to gather details of vendor qualifications.

- **Product demos.** We asked vendors to conduct demonstrations of their product's functionality. We used findings from these product demos to validate details of each vendor's product capabilities.

- **Customer reference calls.** To validate product and vendor qualifications, Forrester also conducted reference calls with two of each vendor's current customers.

- **Forrester inquiry data.** We gathered additional information through inquiry calls with clients that evaluate, purchase, and use these products.

The Forrester Wave Methodology

We conducted primary research to develop a list of vendors that meet our criteria to be evaluated in this market. From that initial pool of vendors, we then narrowed our final list. We chose these vendors based on: 1) product fit; 2) customer success; and 3) Forrester client demand. We eliminated vendors that have limited customer references and products that don't fit the scope of our evaluation.

After examining past research, user need assessments, and vendor and expert interviews, we developed the initial evaluation criteria. To evaluate the vendors and their products against our set of criteria, we gathered details of product qualifications through a combination of lab evaluations, questionnaires, demos, and/or discussions with client references. We sent evaluations to the vendors for their review and adjusted the evaluations to provide the most accurate view of vendor offerings and strategies.

We set default weightings to reflect our analysis of the needs of large user companies — and/or other scenarios as outlined in the Forrester Wave document — and then scored the vendors based on a clearly defined scale. These default weightings are intended only as a starting point, and readers are

encouraged to adapt the weightings to fit their individual needs through the Excel-based tool. The final scores generate the graphical depiction of the market based on current offering, strategy, and market presence. Forrester intends to update vendor evaluations regularly as product capabilities and vendor strategies evolve.

ENDNOTES

[1] Only Google has shown any positive expansion since 2003, growing its market share from 31% to 41% in two years and eating away at the competition. Meanwhile, MSN's share dropped from 17% to 10% in the past year alone, putting it just ahead of AOL, while Yahoo! has held steady in second place for the past two years. See the December 19, 2005, Trends "Search Loyalty Is Hard To Find."

[2] In conceptual search, the search engine models paragraphs and phrases mathematically, enabling the engine to recognize relationships between multiple documents in the index and assess their similarity. This approach aids in removing redundant records from the search results and enables searchers to find documents related to the query that may not contain any of the keywords.

[3] View the vendor summary for more detailed analysis on how Autonomy fared in this evaluation. See the June 13, 2006, Tech Choices "Autonomy Is A Leader In Enterprise Search Platforms."

[4] View the vendor summary for more detailed analysis on how FAST fared in this evaluation. See the June 13, 2006, Tech Choices "Fast Search & Transfer Is A Leader In Enterprise Search Platforms."

[5] View the vendor summary for more detailed analysis on how Endeca fared in this evaluation. See the June 13, 2006, Tech Choices "Endeca Technologies Is A Leader In Enterprise Search Platforms."

[6] In six months, Google has lined up 60 active partners — including, among others, Cognos, Oracle, Cisco Systems, and Salesforce.com — as well as countless developers to change search from a basic utility to an information gateway. The latest appliance enables users to find information — including documents, forms, business intelligence, flight tracking information, market reports, sales forecasts, customer contact information, and FedEx packages — through a single white bar search. See the April 19, 2006, Quick Take "Google Search Appliance Gets Smarter."

[7] View the vendor summary for more detailed analysis on how Google fared in this evaluation. See the June 13, 2006, Tech Choices "Google Is A Strong Performer In Enterprise Search Platforms."

[8] View the vendor summary for more detailed analysis on how IBM fared in this evaluation. See the June 13, 2006, Tech Choices "IBM Is A Strong Performer In Enterprise Search Platforms."

[9] View the vendor summary for more detailed analysis on how Microsoft fared in this evaluation. See the June 13, 2006, Tech Choices "Microsoft Is A Strong Performer In Enterprise Search Platforms."

[10] View the vendor summary for more detailed analysis on how Entopia fared in this evaluation. See the June 13, 2006, Tech Choices "Entopia Is A Strong Performer In Enterprise Search Platforms."

[11] View the vendor summary for more detailed analysis on how Convera fared in this evaluation. See the June 13, 2006, Tech Choices "Convera Is A Weak Contender In Enterprise Search Platforms."

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