



Endeca Set To Lead the Information Visibility Revolution

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We recently spent time with Steve Papa, **Endeca's** founder and CEO, and some of his managers just hours before the start of his company's 2008 kickoff event. The theme of the internal event was "Let the Revolution Begin," a reference to Endeca's plans to transform the way organizations think about data, data management, and visibility.

To round out the briefing, Endeca arranged for us to meet with five long-time customers to hear about their past projects and future plans. While these five represent only 1% of Endeca's 500 customers, our sense is that they are ready to join the chant of "Vive la revolution."

On our ride over to the meeting, we received word that **Microsoft** plans to purchase **Fast Search & Transfer** for \$1.2B. **FAST** is a Norwegian company specializing in enterprise search (read Jim Murphy's piece). It is also Endeca's chief rival, appearing in an estimated 50% of sales cycles last year. While few vendors may be overjoyed to see Microsoft buy a competitor, the acquisition further validates the importance of Endeca's market segment and sets a benchmark for valuations. It also leaves Endeca as one of the few remaining pure plays.

As you will read in a minute, Endeca intends to create a whole new market segment outside of search, though that technology will continue to be a central component. In my view, Endeca is embarking on its third product and marketing wave.

First wave: guided search and navigation

Mr. Papa founded Endeca in 1999 in Cambridge, MA, after stints at **Teradata** and **Inktomi**, where he worked on large-scale parallel search and data warehousing. For the first 12 to 18 months, Endeca raised \$10M that it used to operate as a research company looking at new ideas and opportunities for overcoming the constraints of relational database technology. Mr. Papa's goal was to build a software platform capable of optimizing and summarizing huge volumes of data that could ultimately be used by "everyday people for exploration," without requiring armies of experts. The first products were launched in 2001.

Mr. Papa launched Endeca after the tech boom. As of 9/11, the company had one customer, a large Boston-area financial services company. We first met Mr. Papa within a year or so after that time. I don't have my notes from that meeting, but I would guess the company had about 40 employees and between 15 and 20 customers.

As I recall, most of the early customers were B2B companies, or companies like **IBM** that were using it to move into the e-commerce space. I remember it showed us two demos involving guided search and navigation. The first one was for an online wine purveyor. Endeca's software guided you to the type of wine you might like based on color, type of grape, growing region, or a broad range of taste attributes.

The second demo was for an online book and music store. Similar to what we expect from **Amazon**, the Endeca software could look at the type of reading material you were interested in and recommend similar books or complementary music. In the demo, it matched books on the Civil War with music from that period.

Ironically, I remember leaving that meeting thinking that I had seen some very interesting technology, but was not sure how relevant it would be beyond e-commerce.

The future was right there in front of me.

Second wave: information access platform

I continued to track the company over the next few years. We even purchased some of Endeca's software. If you search for a subject or company name on the AMR Research website, Endeca finds and retrieves the results.

Our next Endeca project involved using the software to build an executive dashboard for our CRM system. Like most of Endeca's customers, we use it as a front end to one or more systems to retrieve and display the information in the manner that best fits the user. Where Endeca's first wave was built around search and navigation, this wave added elements of business intelligence (BI), analytics, and knowledge management (KM).

One new KM component is the company's creation of Endecapedia. This was initially created as an internal tool. If you're a new sales rep working on a product data tool for an aerospace company, you could use Endecapedia to learn more about product data in aerospace, locate appropriate collateral, and identify Endeca experts and other resources. Customers are now expressing interest in using Endecapedia at their companies. I think AMRpedia would have great appeal too.

Next wave: industry-based suites of composite applications

One of the reasons for this week's meeting with the Endeca team was its interest in using our expertise in manufacturing. Manufacturing and distribution represent about 25% of Endeca's revenue. Total revenue for 2007 was more than \$100M, up more than 50% from 2006. Having reached the \$100M milestone, Endeca is looking at \$500M and realizes it needs to broaden and sharpen its focus on the manufacturing sector.

If you go to the Endeca website to see what the company offers for manufacturing, you will come away disappointed. At first glance, it appears that Endeca views manufacturing as a single vertical instead of a rich set of unique sectors and value chains. For better or worse, Endeca's website lags its true abilities.

To date, Endeca has enjoyed most of its manufacturing success in three discrete verticals: A&D, automotive, and high tech. While the company has great brand-name customers in each sector, there is no industry-wide story. Most of the customers began their work with Endeca as a proof-of-concept (POC) project designed to solve a particular problem, often managing a parts database drawn from multiple, incompatible sources. The POC approach has earned Endeca a reputation as being a project company, not a software vendor.

This is changing. The automotive team will likely be the first to develop a broad-based framework showing all the places where Endeca is being or can be used. The automotive team led us through some of the projects underway for product creation, knowledge management, enterprise manufacturing intelligence and visibility, supply chain risk, quality and warranty analysis, services and aftermarket, sourcing execution, supply chain visibility, and portfolio market analysis. Very impressive.

To appreciate what Endeca is doing, you have to look at the customer's situation. One automotive executive started using Endeca for a part navigation system. The company has an eight-digit part numbering scheme. Each part can have 247 attributes, with more on the way for quality and warranty data too. In the current implementation, the Endeca software is fed from at least 20 other systems. To add to the complexity, the Endeca application is designed for global use, with the data having to be segmented by role, such as cost data available only to those that need it. For example, a planner might have "my view" that allows her to access 10 attributes.

Having a large dataset drawn from too many systems is one constant among Endeca customers. One customer who asked that his name and industry be withheld described a database that he built around 19,000 companies with 350 attributes. Another has a system with 100,000 SKUs and more than a hundred attributes. The largest implementation to date supports billions of records with 22,000 attributes.

As you can appreciate, performance is everything. During our meeting, Mr. Papa was very excited about some of the new opportunities presented by using multicore processors. The company has a major initiative underway in its labs.

In the case of all the Endeca implementations, most of the data exists across a plethora of systems in structured or unstructured format. What makes Endeca unique is its ability to provide visibility for everyone that needs it, whether for finding a part or selling to a customer or prospect.

Endeca: completing the metamorphosis to a software company

Ask a customer about Endeca, and one of the first comments you will hear is about the collective brainpower of the people. In a meeting with two customers, one executive described his Endeca team as "some of the smartest people I've ever met." This point was immediately seconded by the other executive.

On the flip side, the two customers also said that Endeca has to quickly make the transition from being a "cool Cambridge tech company" to a software product company. This point was echoed by two other customers too. They offered suggestions for improvements that ranged from improved professional services (until recently, the company had understaffed this group), to pricing (adopt an enterprise license model that he can buy down from, rather than pricing by project), to consistent messaging ("every rep has their own story").

From Autonomy and FAST to Oracle/Hyperion and SAP/Business Objects

In just more than seven years, Endeca went from one customer and modest revenue to 500 customers and \$100M-plus in sales. The next target is the elusive \$500M milestone. To achieve this, the company needs to become a software company with a well-articulated marketing message built on customer value and a broad portfolio of industry offerings.

It is also going to have to maintain its sub four-minute-mile pace. While **Autonomy** and **FAST** are very viable competitors in their own rights, I expect to see Endeca competing more with the newly combined ERP and business intelligence/performance management Goliaths. **Oracle** and **SAP** will look to recoup their significant investments in **Hyperion** and **Business Objects**, respectively, as will **IBM** with its **Cognos** purchase.

Mr. Papa grimaces at the mention of Endeca as a BI/PM vendor. That's not the case. Instead, I would expect Oracle, SAP, and the like to follow him into the data management and visibility marketplace. I would argue that his company's smaller size allows him to maintain his head start. It could be years before Endeca faces products comparable to its own.

Vive la revolution.

Coming next week: an insider's look at BackOffice Associates

Cambridge is not the only city in Massachusetts for cool ideas in data management. Next week we'll introduce you to **BackOffice Associates**, a fast-growing data management and governance vendor located on Cape Cod. BackOffice has attracted a ton of attention from some of SAP's largest customers as well as a venture round from one the most respected names in investment banking. Look for more insights next week.

In the meantime, I welcome your feedback and ideas. What advice do you have for Steve Papa as his firm becomes a software company? Can Endeca make it to \$500M as an independent company, or do you see it attracting acquisition offers from one of the MISO vendors--Microsoft, IBM, SAP, or Oracle? Or will **Google** be interested in Endeca as a lever into the enterprise market? Let me know what you think:
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