Can A 50-Person Startup Threaten Oracle, IBM, And Microsoft?

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Companies spend $35 billion on so-called SQL databases to store and retrieve their data. Goliaths Oracle, IBM, and Microsoft all sell such databases. But a 50-employee, Cambridge, Mass.-based startup claims to be winning business from their enterprise customers. Should investors in those Goliaths be worried?
The startup in question is NuoDB and it sells a distributed database management system (DBMS) to companies that use SQL databases, operate their data centers in the cloud and want guarantees of great service.

NuoDB started selling its product in January 2013 and its customers include AutoZone and Dassault Systèmes. NuoDB was one of 19 vendors in the Gartner Magic Quadrant for Operational DBMS.
To understand why NuoDB could threaten Oracle and its peers, it is useful to explain the distinction between "scale up" and "scale

out." According to my July 8 interview with NuoDB investor Mitchell Kertzman, managing director of Hummer Windblad and former Sybase CEO, "If you are a company that wants to expand its database capacity and buy from Oracle, you need to scale up. This means that you have to buy expensive hardware and software that is engineered for peak demand. With NuoDB, a company can scale out — meaning that it can inexpensively expand and contract its processing power through the cloud and have much less waste."

Oracle offices (Photo credit: Steve Parker)

The database industry has been trying to solve the scale out problem for 30 years. According to my July 10 interview with NuoDB CEO, Barry Morris, "Database designer, Jim Starkey, solved a problem that has eluded the database industry for 30

years that's targeting a $35 billion market opportunity growing at 10% a year. He convinced me to go make it happen. And three of the biggest names in the industry invested–Ingres' Gary Morgenthaler, Sybase's Mitchell Kertzman, and Informix's Roger Sippl."

NuoDB believes that the economics of its solution are compelling to big companies. Argued Oxford alum Morris from a restaurant in France, "Companies care about total cost of ownership and that is a function of the cost of people — specifically $200,000 a year Database Administrators. With NuoDB, a company can reduce its people cost by a factor of five or 10."

NuoDB offers another economic advantage — less wasted processing capacity. "Oracle is engineered for a 500 year flood. That means a company is usually only using 5% to 10% of the capacity it buys from them. NuoDB gives companies enough capacity so that it is 70% utilized and if there is a surge in demand, they can get additional capacity quickly from the cloud," explained Morris.

NuoDB also offers the ability to expand with cheaper machines and it charges less for its software. Morris said, "Companies can expand capacity using NuoDB on machines that cost $500 to $1,000 a piece — much less than the cost of the hardware that Oracle requires. And Oracle software starts at $250,000 a year and can cost big organizations as much as $50 million to $150 million a year. Since our goal is to be a $1 billion company in a $35 billion market, we would be happy with a fraction of that amount."

Big companies are naturally afraid to bet their databases on a startup but NuoDB believes that it offers a compelling reason for early-adopters to try its product. According to Morris, "Big companies that try our product lose $1,000 for every second that their Oracle database is down. We deliver continuous availability. Companies check our references, try out our product, and discover that we can save them huge amounts of money. They are afraid that if they don't use our product, their competitors will."

Oracle is the leader in the database market with an estimated 45% share in 2013 and "$5.13 billion and $8.41 billion in revenues from new licenses and support services for its database products," according to *Tresfis* Team.
NuoDB does not present a dangerous immediate threat to investors in Oracle or its database rivals. Even if companies do start using NuoDB's product, they will not immediately replace their Oracle databases.

But over time, NuoDB appears to offer a compelling value proposition to incumbents' customers. So if NuoDB ever did get to be $1 billion company, perhaps Oracle could spend some of its $50 billion a decade worth of acquisition currency to make its investors an offer they can't refuse.