Aug 8, 2012 - 6:41AM PT

# Database superstar Jim Starkey touts NuoDB's new patent

BY Barb Darrow

1 Comment

*NuoDB, the Cambridge, Mass.-based database startup, is drawing lots of interest and blue-chip investors with a ton of database cred. Now it also has a patent that gives credence to its claims that its elastic database is truly innovative.*

Over the past few months, NuoDB CEO Barry Morris has been telling everyone who'll listen that his company is based on revolutionary — not evolutionary — database technology. Now the Cambridge, Mass. company has a patent to back up those claims.

NuoDB said it got a patent for its "elastically scalable database" from the U.S. Patent and Trademark Office in 15 months — it was filed March 8, 2011 and approved July 17, 2012. That compares with the average patent approval period of 34 months.

NuoDB co-founder and CTO Jim Starkey

"When I started what became NuoDB, the time for variations on existing themes was past," NuoDB CTO and co-founder Jim Starkey  said

in a statement. "If databases were to scale, a whole new approach was required, one unsaddled by ancient assumptions.The NuoDB patent represents a clean sheet re-invention of the relational database. The interface is standard, but the underpinnings are so new that there weren't even terms for its concepts. The patent sailed through the patent office with a finding of 'no prior art.'"

**Update:** The patent filing is here. According to the abstract, the patent application applies to:

A multi-user, elastic, on-demand, distributed relational database management system. The database is fragmented into distributed objects called atoms. Any change to a copy of an atom at one location is replicated to all other locations containing a copy of that atom. Transactional managers operate to satisfy the properties of atomicity, consistency, isolation and durability.

A patent gives its holder the right to exclude others from using the invention for 20 years from the application date  so in this case NuoDB is protected through 2031.

Starkey is a celebrity in database circles. He was the brains behind Digital Equipment Corp.'s RdB database (now part of Oracle( s orcl)) and Interbase (acquired by Borland) and is responsible for many of the breakthroughs in object databases. His company Netrastructure was acquired by MySQL, the popular open-source database, that is now also owned by Oracle.

His starpower is one reason NuoDB has gotten the attention of database aficionados, attracting backers including Mitchell Kertzman, general partner with Hummer Winblad who was former CEO of Sybase. Kertzman said he'd sworn off databases for the past decade because he found the technology stagnant and uninteresting. NuoDB changed his mind about that. The company more recently snagged Gary Morgenthaler as an investor and board member. Morgethaler was co-founder of Ingres, an early relational database power. He also co-founded Illustra with database superstar Michael Stonebraker, who is now with VoltDB. Those names give NuoDB even more heft.

As Morris explained to me earlier this year, NuoDB is often lumped in with NewSQL databases, which he finds to be an oversimplification. "SQL is just one personality for us. We can be NoSQL or SQL, the innovation we have is much deeper," Morris said. He prefers to compare NuoDB to BitTorrent in the way it divvies up tasks to any number of processors — avoiding bottlenecks — but somehow managing to keep all that data organized, accessible and safe.

We all know technology patents are tricky business — see GigaOM's Jeff John Roberts' continuing coverage of the raging patent troll epidemic  — but it does show that NuoDB may really be onto something here with its self-scaling elastic database.

Time will tell.