EXPERT OPINION

Is MongoDB the New Oracle?

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Billy Duberstein's article, If You Invested $1000 in MongoDB's IPO, This Is How Much Money You'd Have Now, illustrated how much money you would have made if you had invested in the MongoDB IPO — over five times what you bought in at!

Although that's impressive, what was really striking was the reasoning behind why the analyst thought enterprise databases were such a good bet:

> "...the database is a particularly attractive product, even by enterprise-software standards, because it stores and organizes all or part of a large corporation's most important data. If a company wanted to switch vendors, it would have to lift all of that data from the old database and insert it into a new one. That's not only a huge pain; it's also terribly risky, should any data get lost. Therefore, most companies tend to stick with their database vendor over time, even if that vendor raises prices. That's how Oracle became such a tech powerhouse throughout the 1990s."

Essentially, database companies are a good investment because, as well as storing your most important data, once your data is captured it's painful and risky for users to switch. While this is great for investors, it is not always good news for the enterprise customers.

One reason why open source has grown and thrived is that it helps users to avoid vendor lock-in. What is good for investor profitability is not always good for the end-user or community as a whole. So, is MongoDB the new Oracle, thriving due to a model that prioritizes customer commitment over collaboration?

The History of Oracle and Open Source

In the late 1990s and early 2000s, I was an Oracle DBA, working for a large company. The company invested millions annually in licensing and support contracts with Oracle. Although Oracle offered a great product with tons of features and capabilities, the company possessed a reputation for some dubious business practices, including; audits, constant price increases, and contracts that locked customers in.

Although you could get discounts if you added additional products, pricing would simply revert at the next renewal, leaving consumers with high costs, and software they really didn't need. In response to this, alternatives to Oracle's model started to emerge — kicking off an industry trend of, "anyone but Oracle."

Fast forward and outright aversion to Oracle has somewhat subsided, but has the business practice really gone away? Sort of. While Oracle has been a great steward of MySQL, they still actively take part in the same lock-in practices as before. Even today, we hear stories from customers wanting to move portions of their servers to PostgreSQL and MySQL, and Oracle tells them that if they reduce their licenses, maintenance costs per license will increase. This actively discourages them from changing.

A Look at MongoDB and the State of Open Source

The most popular open source and source available databases rank similarly across a number of different surveys and sources:

#6	**#3**	**#3**
PERCONA USAGE RANK	DB-ENGINES POPULARITY RANK	STACK OVERFLOW USAGE RANK

Percona Open Source Data Management Software Survey	DB-Engines Rankings	Stack-Overflow Survey
1. MySQL	1. MySQL	1. MySQL
2. PostgreSQL (45%)	2. PostgreSQL	2. PostgreSQL
3. Redis (40%)	**3. MongoDB**	**3. MongoDB**
4. MariaDB (39%)	4. Redis	4. Redis
5. ElasticSearch (39%)	5. ElasticSearch	5. MariaDB
6. MongoDB (38%)	6. Cassandra	6. Elasticsearch
7. Kafka (15%)	7. MariaDB	7. Cassandra

In the first quarter of fiscal 2021 financial results, MongoDB announced total revenue of $181.6 million, up 39% year-over year. MongoDB Atlas revenue was 51% of their total Q1 revenue, up over 73% year-over-year. They also show strong user numbers, with over 26,800 customers as of Apr 30, 2021.

MongoDB saw a portion of revenue growth coming from expansions, price increases, and product changes. It's hard to measure the overall adoption of MongoDB from revenue only. DB-engines show growth, but not as fast as the revenue or customer numbers indicate. But, it is growing.

DB–Engines Ranking
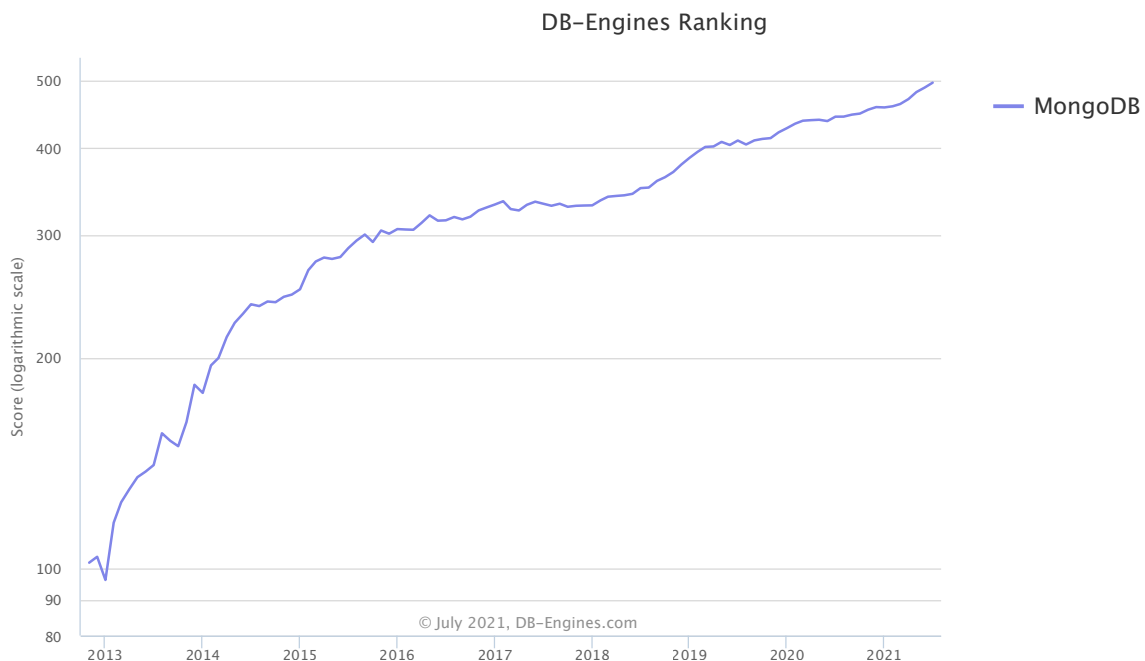
MongoDB Popular Industries & Use Cases

Web – Especially Mobile

Get Big Fast was the mantra of Web 2.0. Only MongoDB delivered on both "big" and "fast". NoSQL puts schema control in the hands of the agile web app or microservice developer, reducing their migration iteration time.

Gaming – Especially Mobile

Storing flexible inventories, keeping up with metadata changes, the ability to scale, and easier sharding, make this a popular target.

X-as-a-Service

Rapidly evolving businesses and rapidly changing data requirements are a good fit for MongoDB's flexible document storage. This lends itself as a popular backend for many SaaS businesses.

Considerations

MongoDB, Inc. has gone all-in on the DBaaS space. This aligns well with its continued mission to empower developers by overcoming the burden that is database management.

[According to MongoDB's CEO](#), MongoDB's long-term strategy involves enterprise-licensed software subscriptions, of which their DBaaS components will be heavily integrated. This can be a difficult trade-off for companies that want to avoid vendor lock-in and utilize truly open source technology.

Additionally, SSPL is not a recognized open source license. Therefore, not everyone considers MongoDB to be truly open source. MongoDB is a tightly controlled ecosystem, by far the most restrictive of the listed open source projects we support. This means community contributions, and third party services and support, lag behind other databases.

Finally, MongoDB's focus and growth have been primarily on Atlas as a platform. This is great if you want to run in the cloud, but what if you don't want to be locked-in to Atlas?

Is MongoDB the New Oracle?

When we compare the business model of MongoDB to that in our original Oracle example — while not favorable — it might actually be quite similar.

MongoDB finds itself in the same position as Oracle, beholden to investors and Wall Street, with a need to continually improve shareholder value over the needs of its customers. MongoDB has made changes to its licensing, moving to a more restrictive model to limit competition and encroachment of the cloud.

Customers have encountered RAM-based pricing changes, leaving many with massive and unexpected costs. Others have experienced way-too-frequent renewal increases.

Sadly, with these similarities in business practices, MongoDB is positioning itself to be the new Oracle. While Wall Street and investors may cheer, consumers may ultimately pay the price.

Benefits of MongoDB

Flexible Schema

NoSQL put schema control in the hands of the agile web app or microservice developer, significantly increasing app release iterations per year.

Objects in Your Language

MongoDB drivers seamlessly convert DB documents to native objects of Javascript / Go / Python / Java / etc. You can work with the natural data type for your programming language, not SQL record structures.

Natural High Availability

MongoDB server and client drivers were built around the replica set from the start, enabling easy, downtime-free maintenance, and automatic failover.

Horizontal Scaling Built-in

Without additional software, MongoDB can be run as a sharded cluster of up to several hundred shards. This makes it the best Big Data solution amongst general-purpose databases.

Percona Distribution for MongoDB - An Alternative Solution

[Percona Distribution for MongoDB](#) provides a fully open source enterprise solution based on [Percona Server for MongoDB](#) and [Percona Backup for MongoDB](#) that maximizes performance while being more cost-effective for teams to run over time.

Percona Distribution for MongoDB provides reliability and high performance support for companies that want to run MongoDB without being tied to specific expensive proprietary software options.

- Harden your environment with data security improvements found in Percona Distribution for MongoDB allowing enterprise-grade functionality via data at rest encryption, authentication plugins, and audit logging.

- Enable point-in-time recovery with Percona Backup for MongoDB to protect against hardware failure or data loss.

- Leverage Kubernetes deployments, making it easier for developers to integrate their applications and database operations. This allows teams to easily create identical environments across all the elements of the software development lifecycle from development, test and QA into production, reducing DevOps process times and automating database instance creation where needed.

Paired with [Percona Managed Database Services](#), Percona also supports cloud-based and on-premises deployments. With a focus on improving performance and availability through proactive optimization reviews and design changes, Percona can help you ensure your database instances run more efficiently.

Percona experts bring in-depth operational knowledge of MongoDB and Percona open source tools to make your database environment hum, wherever you run it.

Our software is complimented by market-leading support and services teams. This allows Percona to offer a genuine enterprise-level alternative to companies who want to break free of a proprietary vendor and restrictive contract.
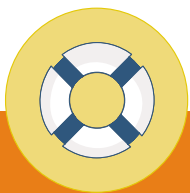
Supporting more than a third of Fortune 50 companies, Percona has extensive experience helping Banking and Financial Institutions benefit from highly-scalable and flexible open source databases, while reducing costs.

We have assisted a broad range of Banking and Financial Institutions in Europe and worldwide including Standard Chartered Bank, WorldNet TPS, PayPal Holdings, UNIFIN FINANCIERA SAB DE CV, Altisource Solutions S.a r.l., and A.M.A. Agrupación Mutual Aseguradora, plus many more.

To learn more about how Percona can help, and for pricing information, please contact us at +1-888-316-9775 (USA), +44 203 608 6727 (Europe), or email us at sales@percona.com.