Why MongoDB?

Referring to MongoDB, Inc MongoDB is the database that enable you to:

- Leverage data and technology to maximize competitive advantage
- Reduce risk for mission-critical deployments
- Accelerate time-to-value
- Dramatically lower total cost of ownership

With MongoDB, you can build applications that were never possible with traditional relational databases. Here's how.

- **Fast, Iterative Development.** Scope creep and changing business requirements no longer stand between you and successful project delivery. A flexible data model coupled with dynamic schema and idiomatic drivers make it fast for developers to build and evolve applications. Automated provisioning and management enable continuous integration and highly productive operations. Contrast this against static relational schemas and complex operations that have hindered you in the past.
- **Flexible Data Model.** MongoDB's document data model makes it easy for you to store and combine data of any structure, without giving up sophisticated validation rules, data access and rich indexing functionality. You can dynamically modify the schema without downtime. You spend less time prepping your data for the database, and more time putting your data to work.
- **Multi-Datacenter Scalability.** MongoDB can be scaled within and across geographically distributed data centers, providing new levels of availability and scalability. As your deployments grow in terms of data volume and throughput, MongoDB scales easily with no downtime, and without changing your application. And as your availability and recovery goals evolve, MongoDB lets you adapt flexibly, across data centers, with tunable consistency.
- **Integrated Feature Set.** Analytics and data visualization, text search, geospatial, in-memory performance and global replication allow you to deliver a wide variety of real-time applications on one technology, reliably and securely. RDBMS systems require additional, complex technologies demanding separate integration overhead and expense to do this well.

- **Lower TCO.** Application development teams are more productive when they use MongoDB. Single click management means operations teams are as well. MongoDB runs on commodity hardware, dramatically lowering costs. Finally, MongoDB offers affordable annual subscriptions, including 24x7x365 global support. Your applications can be one tenth the cost to deliver compared to using a relational database.
- **Long-Term Commitment.** MongoDB Inc and the MongoDB ecosystem stand behind the world's fastest-growing database. 10M+ downloads and 2,000+ customers including over one third of the Fortune 100. Over 1,000 partners and greater investor funding than any other database in history. You can be sure your investment is protected.

MongoDB Nexus Architecture

Organizations are increasingly considering alternatives to legacy relational infrastructure, driven by challenges presented in building modern applications. Consider:

- Developers are working with applications that create new, rapidly changing data types — structured, semi-structured, unstructured and polymorphic data — and massive volumes of it.
- Long gone is the twelve-to-eighteen month waterfall development cycle. Now small teams work in agile sprints, iterating quickly and pushing code every week or two, some even multiple times every day.
- Applications that once served a finite audience are now delivered as services that must be always-on, accessible from many different devices and scaled globally.
- Organizations are now turning to scale-out architectures using open source software, commodity servers and cloud computing instead of large monolithic servers and storage infrastructure.

MongoDB's design philosophy is focused on combining the critical capabilities of relational databases with the innovations of NoSQL technologies. Our vision is to leverage the work that Oracle and others have done over the last 40 years to make relational databases what they are today. Rather than discard decades of proven database maturity, MongoDB is picking up where they left off by combining key relational database capabilities with the work that Internet pioneers have done to address the requirements of modern applications.
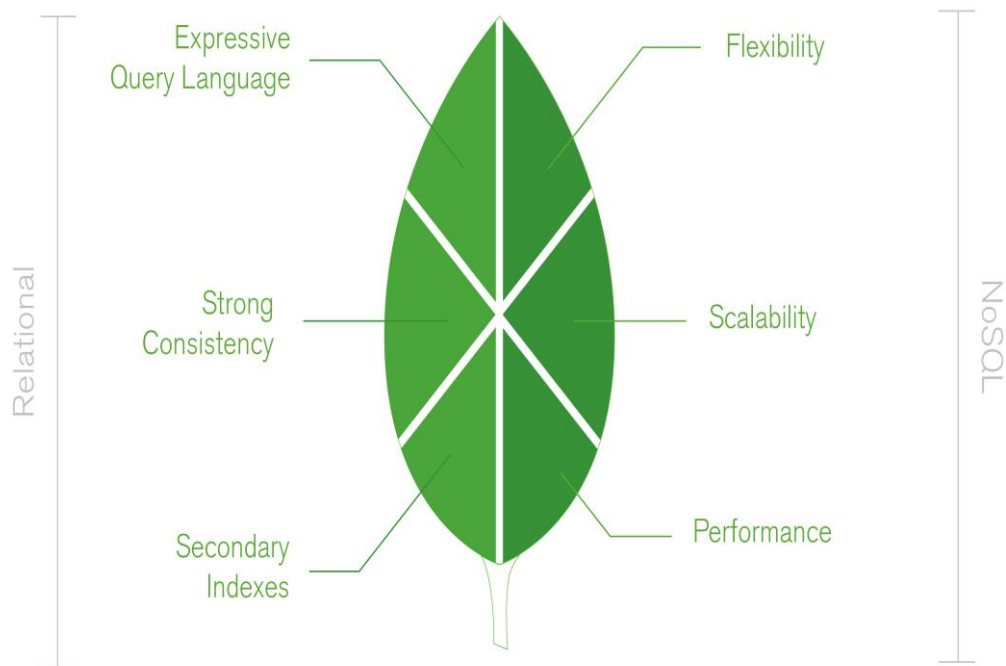
Relational databases have reliably served applications for many years, and offer features that remain critical today as developers build the next generation of applications.

- **Expressive query language.** Users should be able to access and manipulate their data in sophisticated ways with powerful query, projection, aggregation and update operators, to support both operational and analytical applications.
- **Secondary indexes.** Indexes play a critical role in providing efficient access to data, for both reads and writes, supported natively by the database rather than maintained in application code.
- **Strong consistency.** Applications should be able to immediately read what has been written to the database. It is much, much more complicated to build applications around an eventually consistent model, imposing significant work on the developer, even for the most sophisticated development teams.

However, modern applications impose requirements not addressed by relational databases, and this has driven the development of NoSQL databases which offer:

- **Flexible Data Model.** NoSQL databases emerged to address the requirements for the data we see dominating modern applications. A flexible data model makes it easy to store and combine data of any structure, and allow dynamic modification of the schema without downtime.
- **Elastic Scalability.** NoSQL databases were all built with a focus on scalability, so they all include some form of sharding or partitioning, allowing the database to scale-out on commodity hardware, allowing for almost unlimited growth.
- **High Performance.** NoSQL databases are designed to deliver great performance, measured in terms of both throughput and latency at any scale.

While offering these innovations, NoSQL systems have sacrificed the critical capabilities that people have come to expect and rely upon from relational databases. MongoDB offers a different approach. With its Nexus Architecture, MongoDB is the only database that harnesses the innovations of NoSQL while maintaining the foundation of relational databases.