

# MongoDB, Document Databases, and the changing Data Landscape

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# Trends

# Why all this new stuff?

- New use cases with new “shapes” of data
  - Semi-structured, polymorphic, evolving structure, object-y structure
- New software development methodologies
- New hardware architectures have implications

# Data model options these days

- Relational
  - Traditional
  - “NewSQL”
- Key-value
- Columnar / “BigTable style”
- Document (XML, JSON)
- Graph

# “Dynamic Schema” notion is important

- Especially given agile development methodologies
- Dynamic vs static typing

```
int x = “abc”;
```

# JSON has some nice properties for use in a database context

- Standards based, language independent way to store object style data

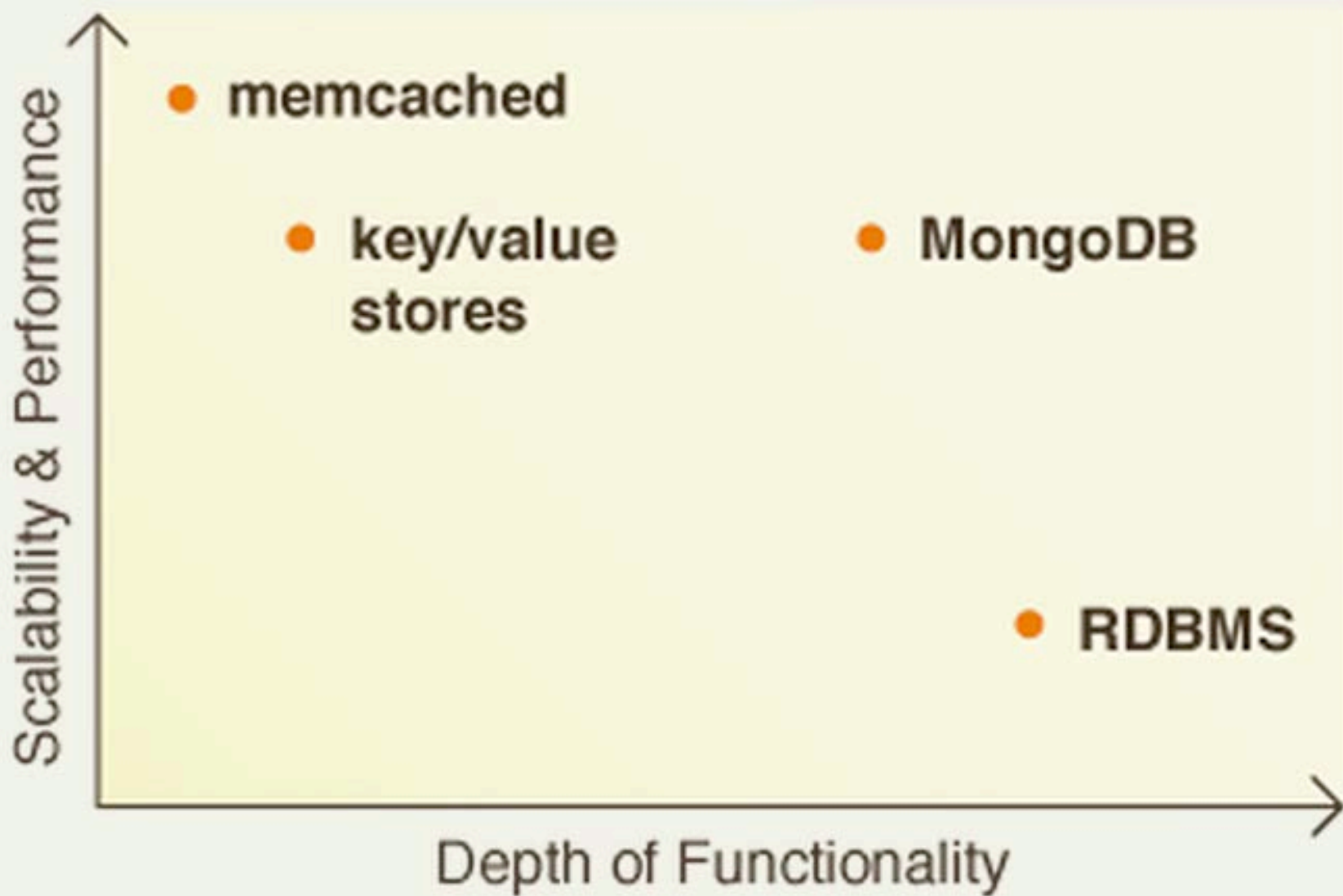
# JSON has some nice properties for use in a database context

- Standards based, language independent way to store object style data
- BSON (“binary json”)
  - [www.bsonspec.org](http://www.bsonspec.org)

# MongoDB Philosophy / Approach

- Don't change things if they aren't broken
- We like JSON and documents as a data model basis
- Features are good, as long as you don't break horizontal scale-out

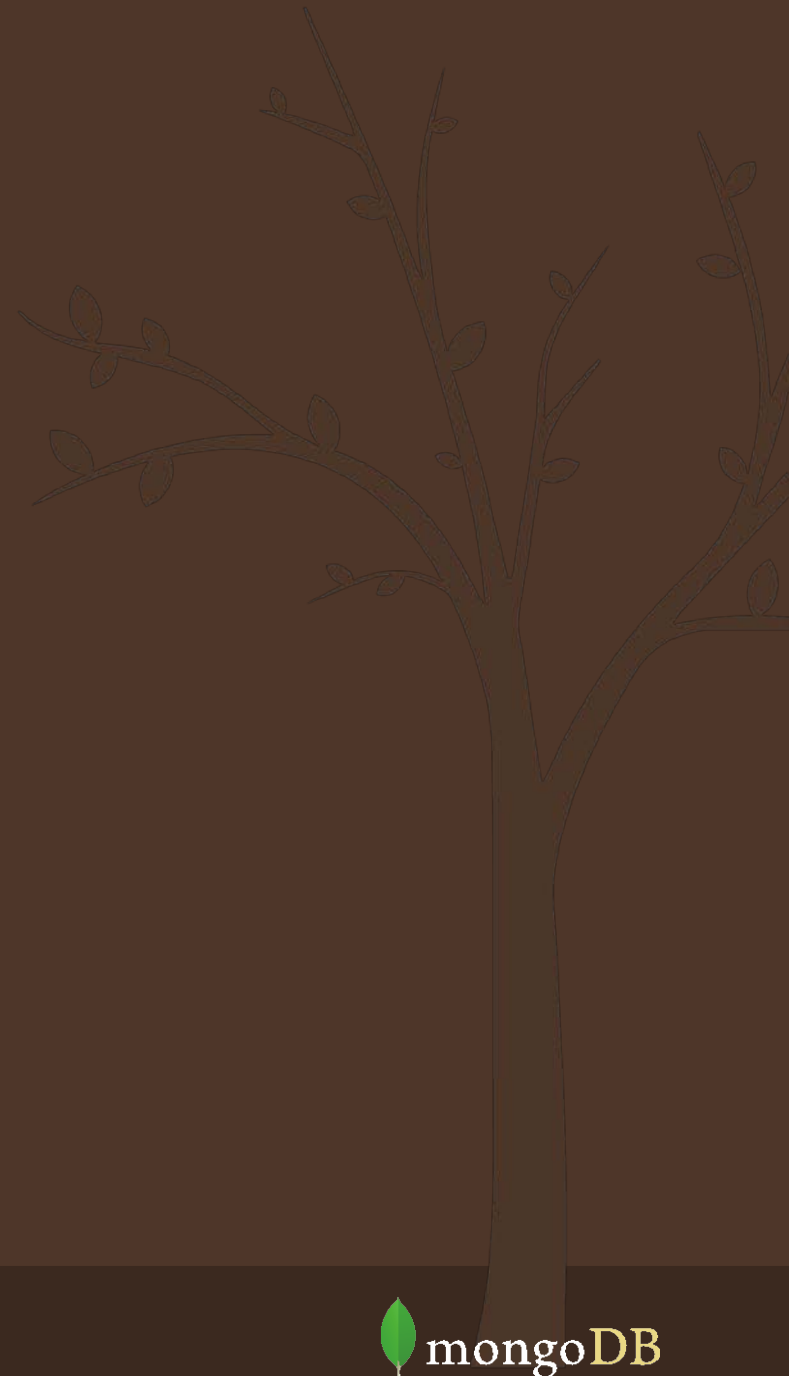




# Example / Demo

# Thank You

## Q&A



# Appendix things

# Case Study



Single view of customer data (virtually impossible with RDBMS)

Problem	Why MongoDB	Results
<ul style="list-style-type: none"><li>• 70+ disparate data sources (mainframe, RDBMS)</li><li>• RDBMS could not support centralized data mgt and federation of information services</li></ul>	<ul style="list-style-type: none"><li>• Document model allows easy integration of diverse data sources</li><li>• Fast, easy scalability</li><li>• Full query language</li><li>• Delivers high scalability, fast performance, and easy maintenance, while keeping support costs low</li></ul>	<ul style="list-style-type: none"><li>• Successful POC in 3 weeks; in production within 90 days</li><li>• Single view of the customer (improved customer experience, improved sales)</li><li>• 71% less expensive</li></ul>