
AWS
re:Invent
NOV. 28 – DEC. 2, 2022 | LAS VEGAS, NV

PRT223

SPONSORED BY MONGODB

The rise of the developer data platform

Lena Smart

CISO
MongoDB

aws

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3 THINGS HAPPENED AROUND 2007

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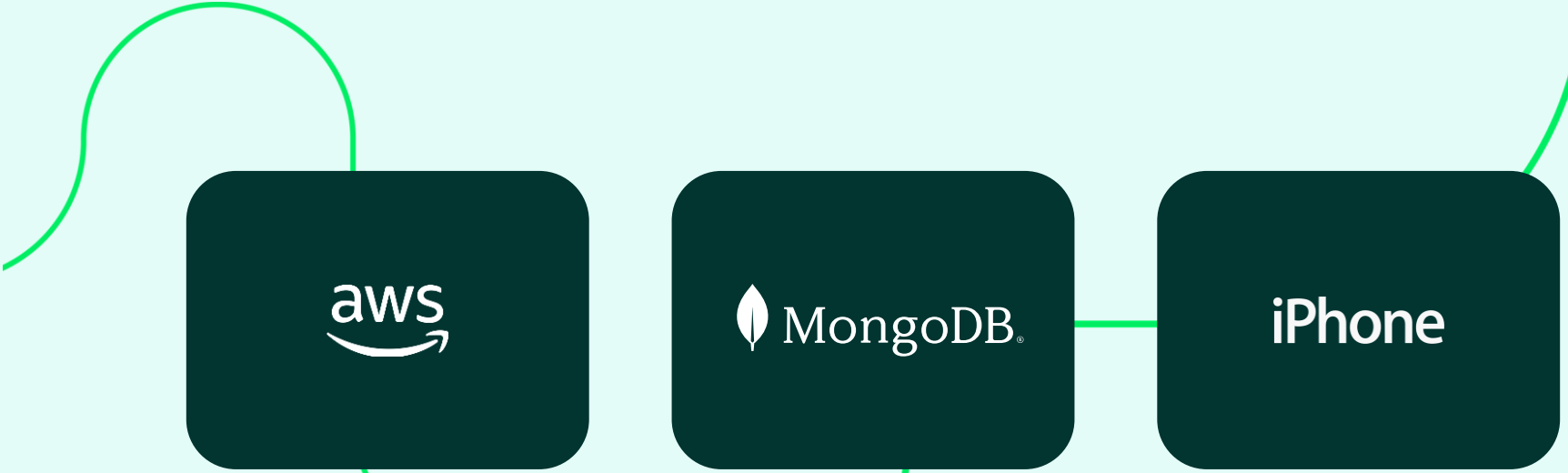


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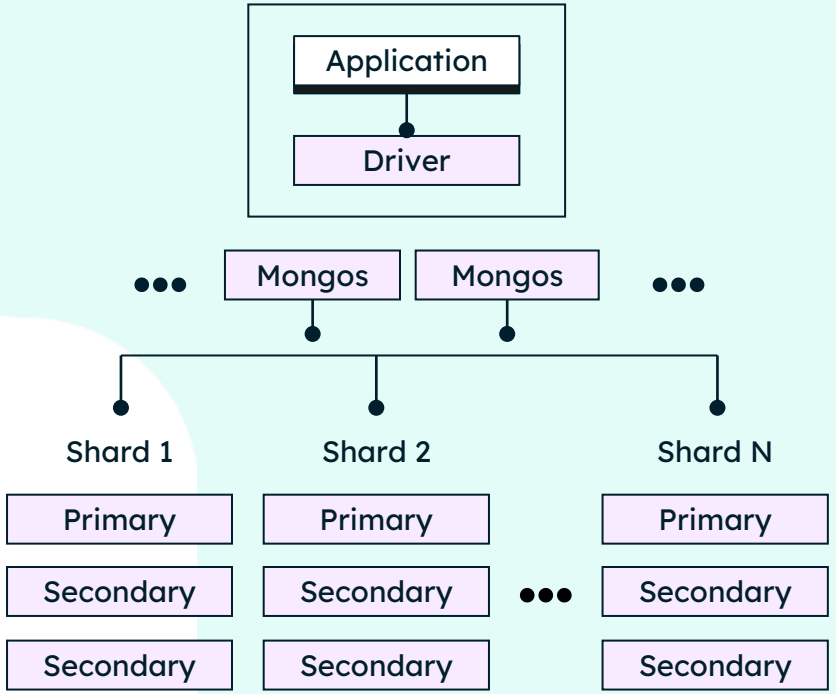


3 THINGS HAPPENED AROUND 2007



```
{
   first_name : “Joe”,
   surname    : “Drumgoole”,
   title      : “Director”,
   Address : {
      address1 : “Latin Hall”,
      address2 : “Golden Lane”,
      eircode  : “D09 N623”,
   }
   expertise: [ “MongoDB”, “Python”],
   employee_number : 320,
   location : [ 53.34, -6.26 ]
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DOCUMENT MODEL DATABASE

The company 10gen is founded by Eliot Horowitz, Dwight Merriman and Kevin Ryan in New York City.

FOUNDED

2007

MONGODB CLOUD SERVICE (MMS)

Full-stack SAAS to Database

MongoDB v1.0

San Francisco office

First MongoDB cloud service released (MMS)

1.0 + 2.0

2008/14

WIREDTIGER

Doc-Level Concurrency

RAFT / Fast Failover

$lookup

Ops Manager

Compression

≤50 replicas

Aggregation ++

Encrypted and In-Memory storage engines

BI Connector

Compass

3.0 + 3.2

2015



Views Graph Processing Zones ++

Aggregation ++

Auto-balancing ++

Linearizable Reads

Decimal Intra-cluster Compression Log

Redaction Spark Connector ++

BI Connector ++

3.4

2016

Change Streams

Retryable Writes

Schema Validation

Expressive $lookUp

Query Expressivity

Causal Consistency

Consistent Sharded Secondary Reads

Query Advisor

End to End Compression

WiredTiger 1m+ Collections

MongoDB BI Connector ++

R Driver

Charts (post GA)

Atlas X-Region Replication

Atlas Auto Storage Scaling

3.6

2017

ACID TRANSACTIONS

Replica Set Transactions

Atlas Global Clusters

40% Faster Shard Migrations

Atlas HIPAA

Atlas LDAP

Atlas Audit

Atlas Enc. Storage Engine

Atlas Backup Snapshots

Type Conversions

Snapshot Reads

Non-Blocking Sec. Reads

SHA-2 & TLS 1.1+

Compass Agg Pipeline Builder

Compass Export to Code

Free Monitoring Cloud Service

Ops Manager K8s Beta

4.0

2018

DATA PLATFORM

Distributed Transactions

Client-Side Field Level Encryption

Materialized Views

Wildcard Indexes

Global PIT Reads

Large Transactions

Mutable Shard Key Values

Atlas Data Lake (Beta)

Atlas Auto Scaling (Beta)

Atlas Search (Beta)

Multi-CAs

Expressive Updates

Apache Kafka Connector

MongoDB Charts GA

Retryable Reads & Writes

New Index Builds

10x Faster stepDown

Storage Node Watchdog

Zstandard Compression

4.2

2019

MULTI-CLOUD

Union

Custom Agg Expressions

Refinable Shard Keys

Compound Hashed Shard Keys

Mirrored Reads

Hedged Reads

Resumable Initial Sync

Time-Based Oplog Retention

Simultaneous Indexing

Hidden Indexes

Streaming Replication

Global Read/Write Concerns

Rust & Swift Drivers GA

TLS 1.3 & Faster Client Auth

OCSP Stapling

Kerberos Utility

Atlas Online Archive

Auto-Scaling

Schema Recommendations

AWS IAM Auth & Atlas x509

Federated Queries

4.4

2020

DEVELOPER DATA PLATFORM

Time Series collections

Clustered indexes

Window functions

Live resharding

Client-Side FLE KMIP & cloud KMS

Atlas Serverless (preview)

Atlas Search fast facets, function scores, synonyms

Long running snapshot reads

Sharded $lookup & $graphlookup

Majority write concern default

4x faster initial sync

Schema validation diagnostics

New MongoDB Shell GA

Resumable index builds

Rewritten Swift driver

Rewritten C# LINQ provider and .NET Analyzer

PyMongoArrow API

New accumulator operators

Charts on Data Lake

x509 certificate rotation

Auditing ++

Atlas K8S controller

Ops Manager 5.0

Ops Manager migration wizard

5-6

2021/22

Scalability and agility

The company 10gen is founded by Eliot Horowitz, Dwight Merriman and Kevin Ryan in New York City.



Fully managed, hosted service

MongoDB Atlas

Views Graph Processing Zones ++

Aggregation ++

Auto-balancing ++

Linearizable Reads

Decimal Intra-cluster

Compression Log

Redaction Spark Connector ++

BI Connector ++

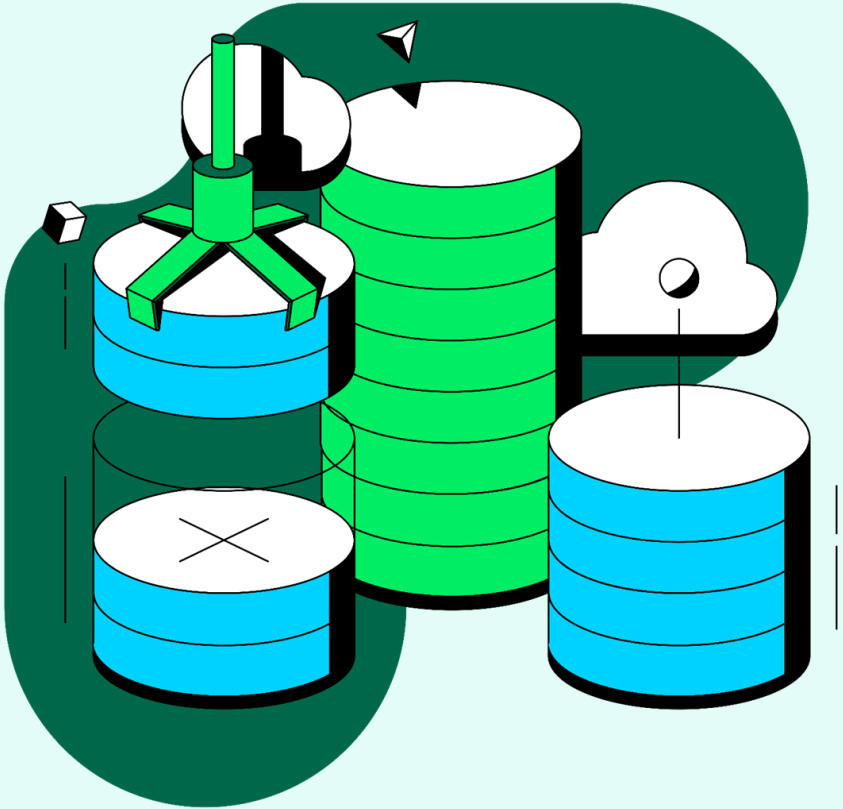


More than just a database

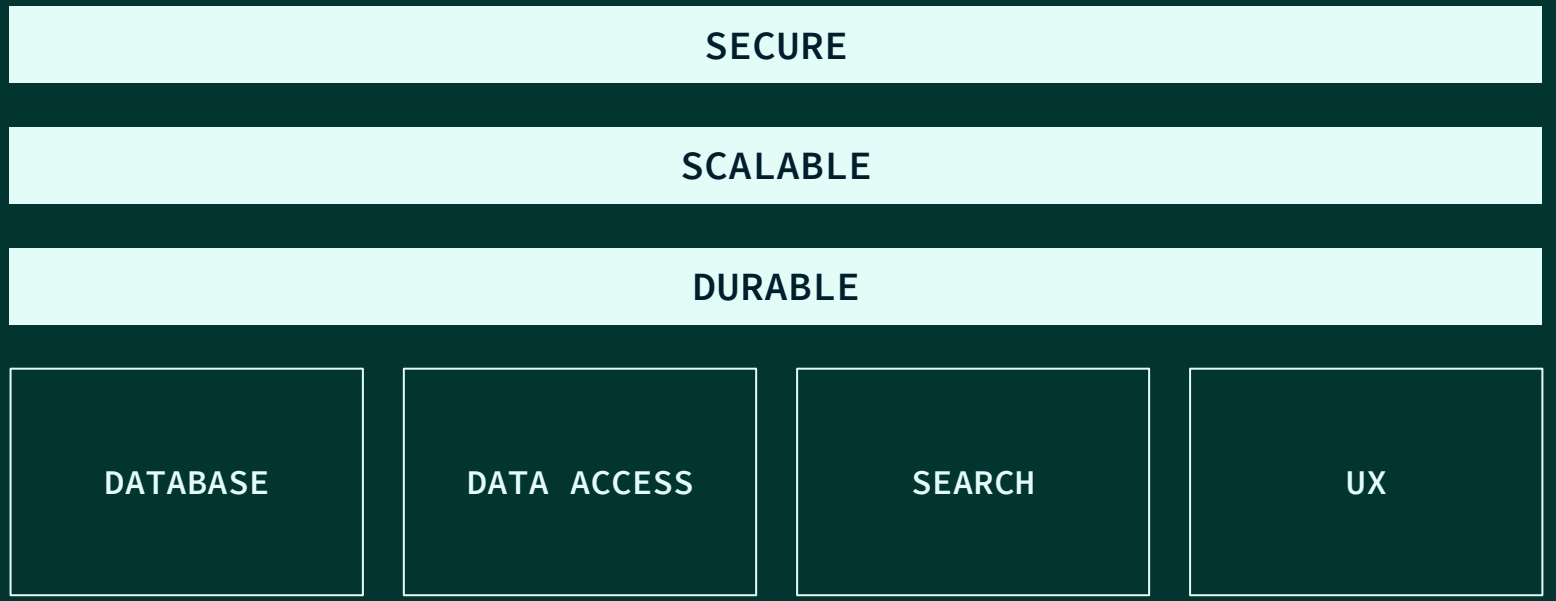
DEVELOPER DATA PLATFORM

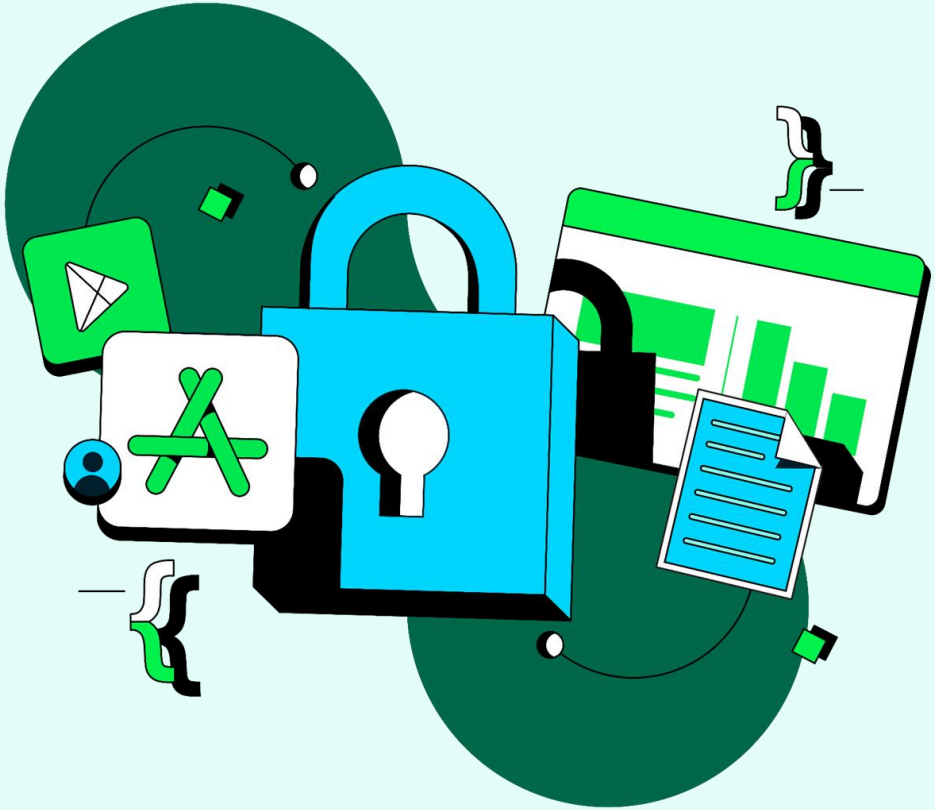
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- x509 certificate rotation
- Auditing ++
- Atlas K8S controller
- Ops Manager 5.0
- Ops Manager migration wizard





Every modern application needs...


SECURE
SCALABLE
DURABLE
DATABASE
DATA ACCESS
SEARCH
UX



So, what is a developer data platform?

Elegant developer experience



Broad workload support



Global reach and scale



The fundamental challenge

verizon

Innovation at the network edge

Pushing the boundaries of 5G edge computing

MongoDB

Atlas + Atlas Device Sync + Realm

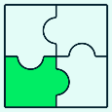


verizon

MongoDB Atlas: a developer data platform



BENEFITS



Integrated experience on a distributed core



Security out of the box



Any cloud



Diverse developer tool chain



Third party integration points (e.g., AWS Wavelength)

FIRESIDE CHAT

The Rise of the Developer Data Platform



LENA SMART
CISO



KAREN HUAULME
Principal Developer Advocate



ANDREW DAVIDSON
SVP, Products



KRISTA BRAUN
MODERATOR
Executive Keynote Advisor

Thank you!



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aws

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