



WELCOME

MongoDB

SI Architect Certification



SI Architect Certification Program

- Must be SI Associate Certified
- Team Lead & above roles
- ILT & Self-paced

Associate Developer Certification Program

- Must be SI Associate Certified
- Self-paced

Associate DBA Certification Program

- Must be SI Associate Certified
- Self-paced

How to download SI Associate Certificate

- Wait for 24-48 hrs
- Certificate will be generated and certificate download steps are shared to you.
- Incase you have any specific challenges, reach out to us:
 - learn@mongodb.com
 - ramakrishna.kappagantula@mongodb.com
 - sneha.dasgupta@mongodb.com
 - iman.roy@mongodb.com
 - parth.yadav@mongodb.com



Learner can download certificate and share to LinkedIn.



SI Architect Certification

8 hours

Prerequisite: SI Associate Certification

1. Program Overview
2. Market Intelligence
3. Relational Migrator
4. App Driven Analytics and GenAI
5. Use Cases
6. Final Assessment



Agenda

Horizontal Use Cases

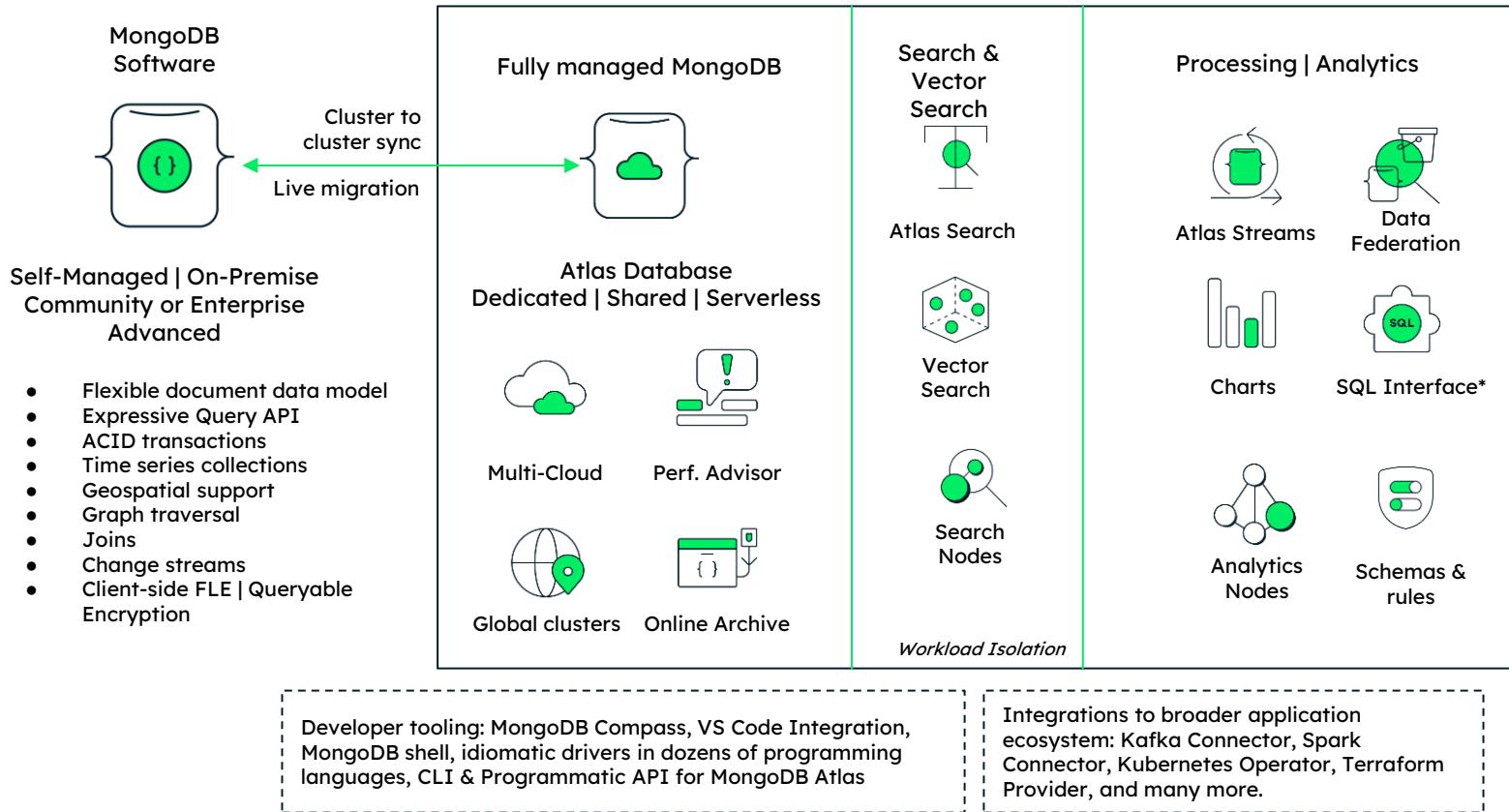
Vertical Use Cases

MongoDB : What's New

Modernization Scorecard

SI Architect Submission Process

MongoDB Atlas: Developer Data Platform



* in preview

Horizontal Use Cases



Use Cases / Focus areas



Internet of Things

Analyze and act on data from the physical world

[Learn More →](#)



Single View

Real-time views of all your most important data

[Learn More →](#)



Personalization

Relevant content presented to all your users

[Learn More →](#)



Real-time Analytics

Analytics at the speed of your data

[Learn More →](#)



Mainframe Offloading

Move workloads off the mainframe

[Learn More →](#)



Catalog

Product catalogs, asset management, and more

[Learn More →](#)



Mobile

Mobile app development made fast and easy

[Learn More →](#)



Content Management

Store, edit, and present all types of content

[Learn More →](#)



Single View

MongoDB Customer 360

(1) Start Phase

The core client data are provisioned in standard profiles

(2) Expand Phase

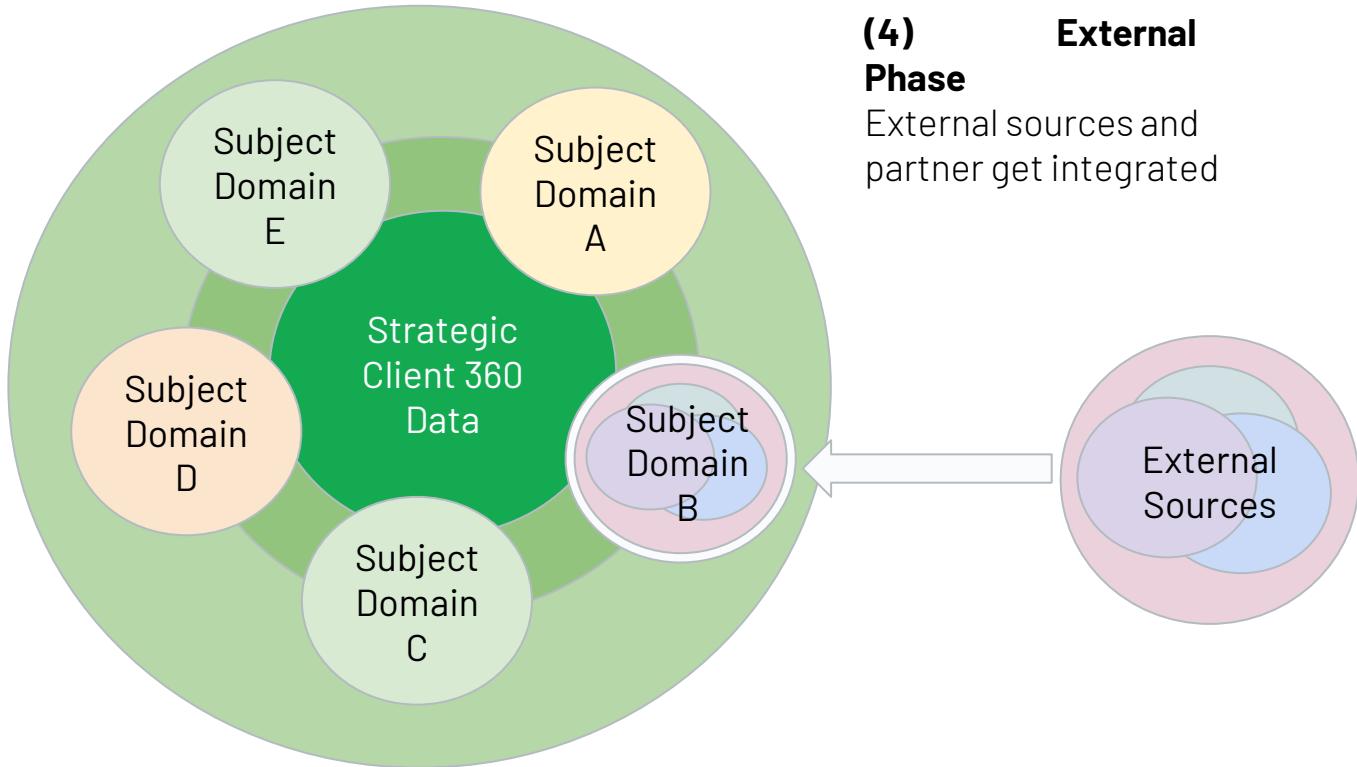
New Domains get added to the data set and expand the understanding of the client

(3) Internal Phase

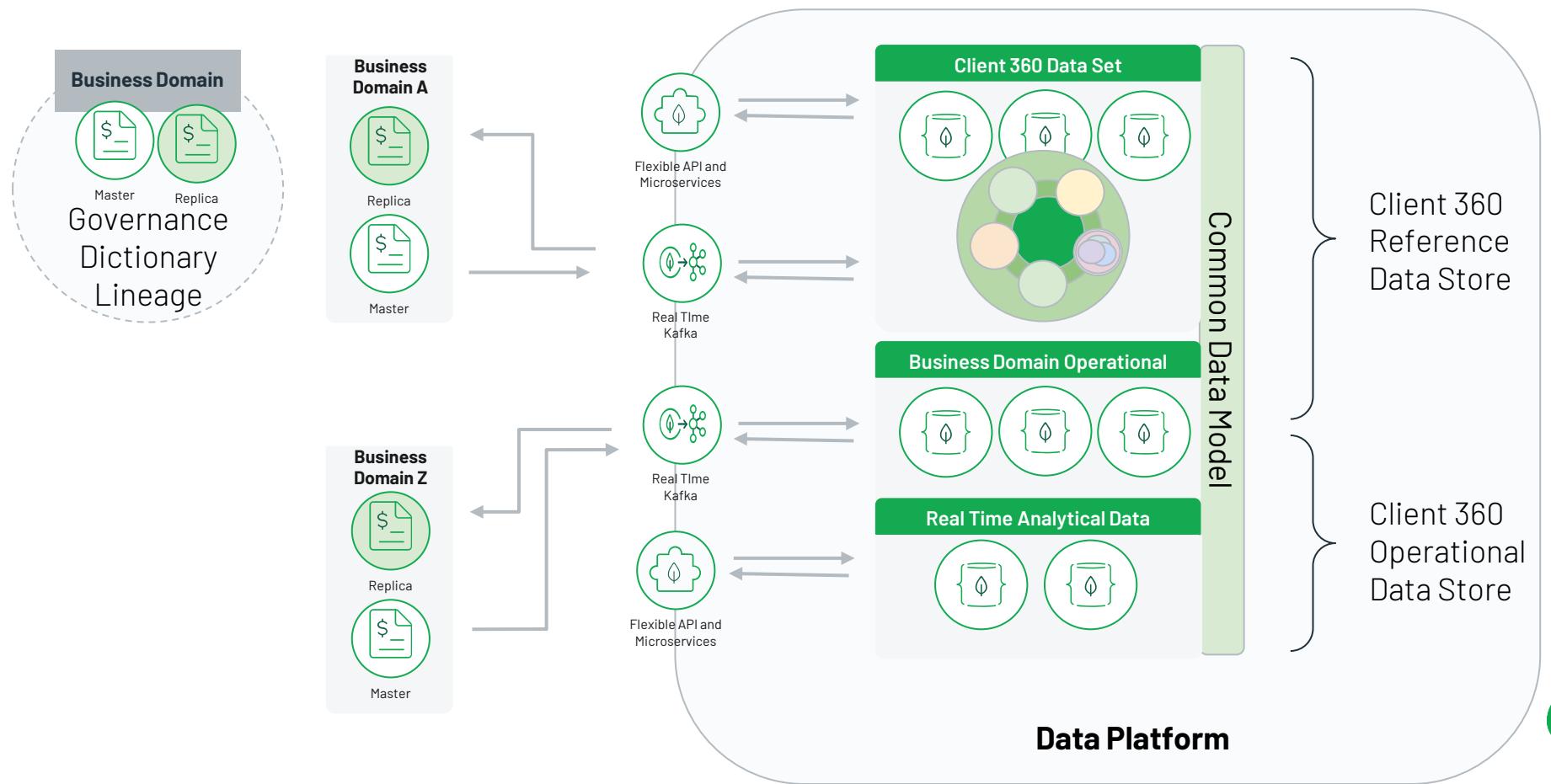
All internal domains are available and enriched data profiles are available

(4) External Phase

External sources and partner get integrated



MongoDB Customer 360 Template





Single View of Customer

Insurance leader generates coveted single view of customers in 90 days – “The Wall”

Problem

No single view of customer, leading to poor customer experience and churn

145 years of policy data, 70+ systems, 24 different 1-800 numbers, 15+ front-end apps that are not integrated

Spent 2 years, \$25M trying build single view with DB2 – failed

Solution

Built “The Wall,” pulling in disparate data and serving single view to customer service reps in real time

Flexible data model to aggregate disparate data into single data store

Expressive query language and secondary indexes to serve any field in real time

Results

Prototyped in 2 weeks

Deployed to production in 90 days

Decreased churn and improved ability to upsell/cross-sell

Single View



Global insurance leader generates coveted single view of customers named the “The Wall” on MongoDB in 90 days

70+

disparate legacy systems consolidated

15 → 1

customer service app

2 weeks

working prototype developed

3 months

launched in
Production across all
MetLife call centers



Introducing technology like MongoDB to our development teams created a buzz and excitement that motivated and empowered teams to deliver work in months that would typically take years.

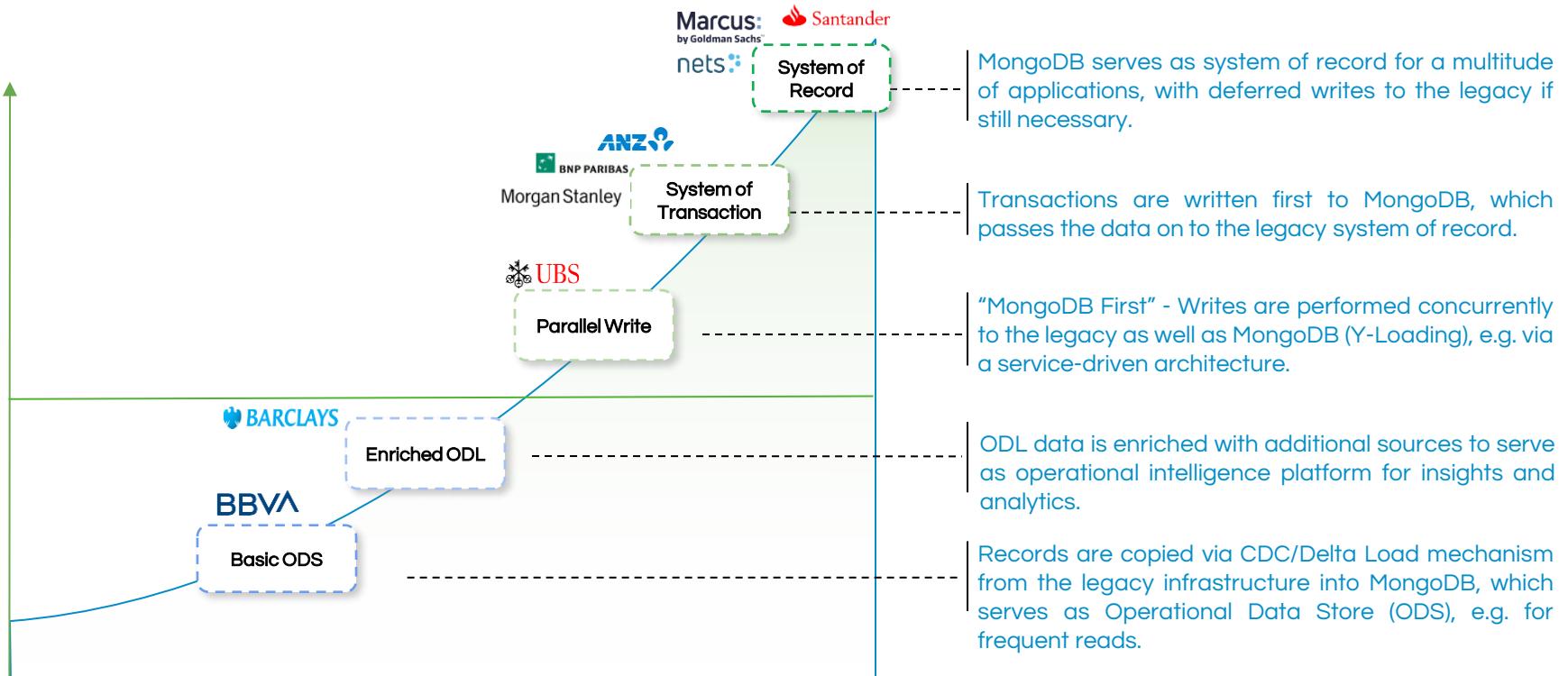
—Gary Hoberman
CIO & SVP, App Dev
@ MetLife





Mainframe Offloading

Mainframe offloading - 5 phases of project lifecycle



Operational Data Layer - Multinational Universal Bank

Built an operational data layer (ODL) to modernize expensive mainframe operations, and store and process transactions to power digital services, operational apps, and reporting.

Problem

Inefficient and slow to meet customer demand for new digital banking services, due to heavy reliance on legacy infrastructure and apps.

Continued growth in traffic and launch of new digital services led to increased cost of operations and decreased performance.

Mainframe was single point of failure for many applications. Outages resulted in poor customer service, brand erosion, and regulatory concerns.

Solution

Analysis of digital channels revealed that 92% of traffic generated by 25 interaction types, 85% of these read-only. Created ODL to modernize these operations from mainframe.

MongoDB based ODL updated in near real-time via CDC and messaging queue to power existing apps, new digital services and other APIs.

Document structure allowed denormalized data, reducing complexity while increasing performance.

Results

Lowered time to market to launch new digital services, including personalization, and comply with regulations (PDS2, etc) with ease.

Stand-in capability to support resiliency during planned and unplanned mainframe outages.

Reduced number of read only transactions to mainframes (MIPS cost), thereby freeing up resources for additional growth.

Reduced reliance on availability of specialized hardware and qualified mainframe staff.

Before MongoDB



Expensive

- With the advent of mobile banking, significant number of mobile banking transactions just didn't balance with an **annual £9m MIPS bill** from IBM



Growth & Scale

- Growth of mobile traffic has led to an increased cost of operations and decreased performance
- Adoption & Usage had exploded in the last 3+ years: Over **6.5m active customers** just on mobile apps. **5m logins/day** with peaks hitting at **800 requests per second**.



Low Resilience & High Risk

- Core parts of the app infrastructure were running on the mainframe, creating a single point of failure
- Mainframe outages caused significant impact on channels & customer experience

Benefits with MongoDB



Cost Reduction

- 80%+ of transaction offloaded** from mainframe, saving **\$7m+** in MIPS bills



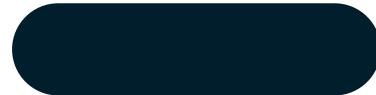
Harness the scale with simplicity

- Average of **~28m tx/day** with latency from 800ms-2000ms to commit transactions
- Over **30 months of history with ~13b transactions** held in 114m documents, ready to serve multiple use cases
- Sync times from mainframe into MongoDB in the sub-600ms for "near real-time"



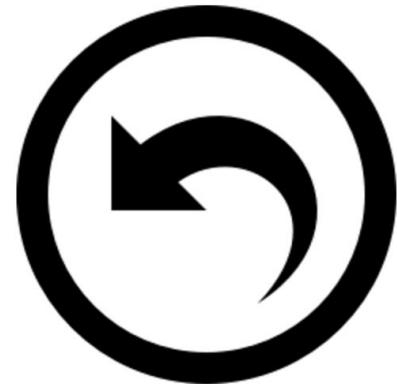
Ultra-high Resilience

- Robust, reliable & low-latency mechanism to get out of the mainframes



IOT

Components of an IoT Platform

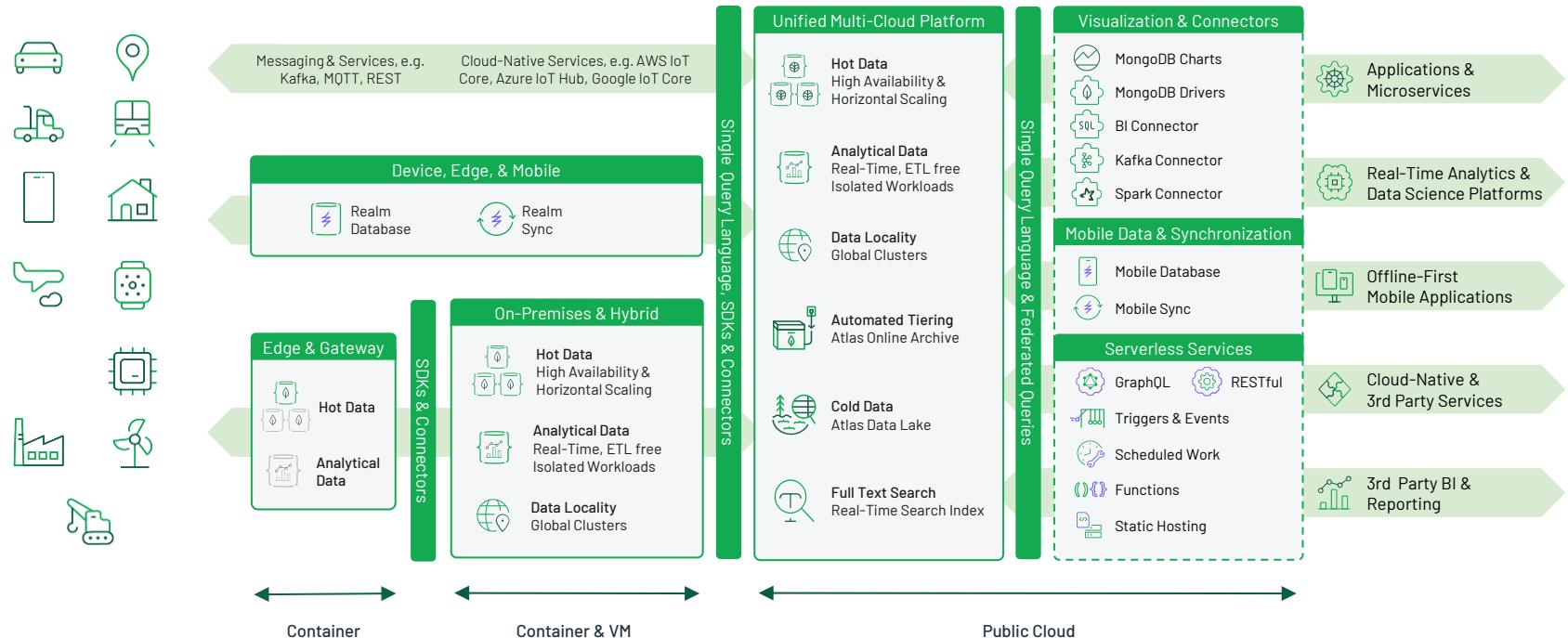


Capture Data

Analyze Data

Act on Data

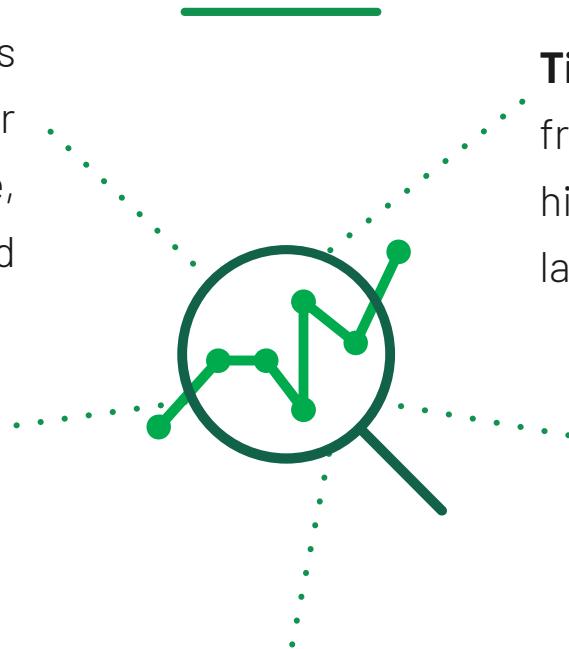
MongoDB IoT: Edge to Cloud to Mobile Platform



MongoDB 5.0: Native Time Series Platform

Easy Integration: time-series collections sit right next to regular collections in the same database, supporting ANY workload

Automated Data Lifecycle: real-time analysis, visualization, and online archiving* in a secure, enterprise-grade platform



Time Series Collections: "hands-free" optimized schema supporting high storage efficiency and low latency queries

Clustered Index: fast read access with new, highly efficient index type

Time Series Queries & Analytics:

unlock insights faster with new window functions and temporal operators

* Coming soon



Vertical Use Cases

Wide range of use cases across industry verticals

	Marketing Cloud		E-Commerce		E-commerce Personalization
	HR Mobile Application		Entry Decision System		E-commerce Platform
	Real-Time Travel Search		Social Security Benefits		Video Streaming
	Mobile Drug Applications		Mobile App for Patient Data		Log Metadata Store
	Mobile Banking		Couples Matching System		Social Media Management
	Multi-screen TV		Credit Card Processing		Website Platform
	Internet of Things Platform		Online Booking		Product Catalog
	Content Management		Single View of Patient		Identity Theft Protection
	Predictive Messaging		Fraud Case Management		Mass Spectrometer- IoT
	Order Capture		Genetic Analysis		Subscriber QoS
	Single View of City		Online Lending		Biometrics Security
	Logistics Modernization		Swap Equities Management		Shopping Cart

MongoDB for Financial Services



We've Done This Before



High Volume Trading/Wallet, Consumer Applications, Real Time Analytics



Global Single View, App Modernization; eliminated Teradata



App Modernization, Data Fabric; eliminated Coherence



Mainframe Offload for Massive Consumer Banking Platform



Cloud Transformation, App Modernization



App Modernization, Global Data Hub for Markets, Compliance Reporting



App Modernization, Global Reference Data Platform



Mainframe, App Modernization, Mobile Banking Platform



Mortgage Single View , App Modernization, Mainframe Offload; Standardizing on MongoDB



We make banking
possible for
1.2 billion people
worldwide -
30% of the world's
banked population!



Massive scalability for Transact on MongoDB - Temenos Blog

150,060

Banking
operations a
second

<21ms

MongoDB's
response time

2x

Smaller data
infrastructure total
footprint

Temenos Transact Benchmark 2023



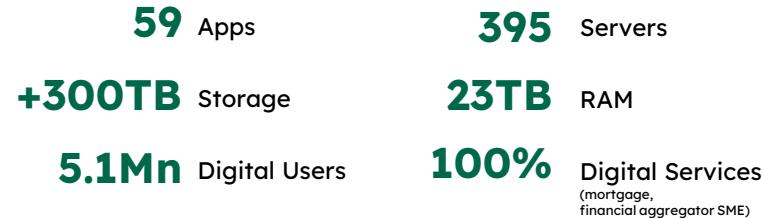
Santander

Digital channels

- Home Insurance
- Health Insurance
- Home banking
- Sandoku
- Digital Piggy bank
- Onboarding CMC for NWE customers
- Onboarding Legal Person
- Onboarding Natural Person
- App mobility - Payments procedures
- ATM3.0 (My Web ATM)
- Categorizer: accounts movements
- Online mortgage
- Digital Platform for New SME portal
- Card app

Risk and Compliance

- Risk scoring
- Dodd Frank
- GPI Operational Tracker
- Synaptic Data Intake
- Digital Bank Guarantees Issuing
- Customer margin assessment
- PSD2 to report Risk engine
- Admission strategic engine
- PSD2



Analytics

- Watson - Insurance
- Digital Consume
- Real time loans
- Block accounts - Alert
- Atenea
- Strategic Engine
- Pre-granted loan simulator

Payments

- Payoo
- FXPay

Single View

- ADN 360
- ADN communications
- ADN Front risk
- ADN Manager
- Enquiries to the Lake
- ADN Manager - API proposals
- ADN My customers
- Shared customers Profiler

Reporting and Content Repository

- Saving servicing
- Document Management
- Dumbo - Customer campaign management
- Business comercial Report
- External platforms - Factoring
- Campaign Policy engine
- Loan process evolution
- Document Management
- E-sign record
- My desktop
- SME credit cards Management
- Daily summary of business activity
- ATM monitoring



MongoDB continues to underpin Santander's journey from the mainframe to nimble composable services

Mainframe



Initial ODS
“mainframe offload”

Improved Client experience for existing apps through faster pattern



ODL: Better data for staff and clients through enrichment “Personas” & “Ledger”



System of record of some data start moving to MongoDB



Vanity Apps
Special Purpose
“Sandoku”, “Piggy”



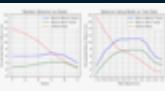
Digital Risk



Core Mobile Banking Application
“Europe One”



Digital Data
Digital Mortgage



Digital Loan

2021

PagoNxt

2022

Atlas Feature Exploitation, e.g.
Search on global scale

Covid 19
Start of using MongoDB Atlas

MongoDB for Insurance





Swiss Re

CHUBB®



CNA

Amica



Allstate®



MetLife



State Farm®

wefox

unqork



MarshMcLennan

RLI

DIFFERENT WORKS



Northwestern
Mutual®



MAPFRE



Sun Life

Allianz



TRAVELERS



Groundspeed

PROGRESSIVE®



HSBC
Insurance



Direct Line
Group

ünüm®

Principal®

ERGO

A Munich Re company

Major Insurers and InsurTech around
the world are using **MongoDB** to
increase agility, developer velocity,
and the **speed of innovation.**

MongoDB for Telco



Example Telco Deployments

MongoDB provides a data platform underpinning a diverse range of use cases.



Service Assurance

Network event datastore to underpin AI based service assurance processes



Mediation Services

Provide mediation services underpinning B2B IOT services



MEC Services

Simplifying edge-based data processing for latency sensitive use cases

BSS Solutions

Enable modular, headless BSS modernisation using TM Forum standards



Global Customer Profile

Simplify customer profile management via TM Forum Standards



Home Automation

Consumer IOT platform focussing on automation of 'things' in the home.



Charging Solutions

Provide long-term event storage for online charging system

CDR Processing

Ingestion and processing of CDR records for prepaid mobile business

MongoDB for Retail

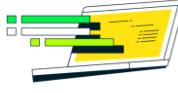


MongoDB Atlas for Retail:

Delivering innovation from supply chain to checkout



Ecommerce Personalized



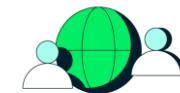
Omnichannel



Workforce and
In-Store Devices



Optimised Supply
Chain



Sustainable
Initiatives

Customer:

[OTTO](#), [commercetools](#), [Store Hippo](#), [Expedia](#), [Ulta Beauty](#)

Use Cases:

Search & Vector Search
Product Catalog,
Product Info Management,
ECommerce Modernisation,
MACH Architecture

Hero Content:

[MongoDB for Retail:](#)
[eCommerce Modernization](#)
[Search Beyond ECommerce](#)
[Digital Differentiation eBook](#)

Customer:

[Boots](#), [Albert Heijn](#), [AO.com](#)
[Leroy Merlin](#), [MediaMarkt](#), [Wolt](#)

Use Cases:

Order Management
Next Day Deliv/ Pick Up
Single View of Product
Digital Receipts

Hero Content:

[Data Mesh Approach to
Omnichannel](#)
[Webinar: Enhance Customer
Experience And Make Your
Data Work In Real Time](#)

Customer:

[7-Eleven](#), [Marks & Spencers](#),
[Getir](#), [Mountain Warehouse](#)

Use Cases:

Workforce Enablement
Inventory/ Stock Apps
Delivery Rider Apps
Point of Sale Devices

Hero Content:

[3 Ways Retailers Use
MongoDB in Mobile Strategy](#)
[Edge Server Between
Connected Retail Stores and
the Cloud](#)

Customer:

[fulfillmenttools](#), [Radial](#), [Rebus](#)
[Longbow](#), [Sainsbury's](#), [Lidl](#)

Use Cases:

Track and Trace,
Inventory Management,
Logistics Optimization,
Planning and Forecasting

Hero Content:

[Enabling best practise supply
chain](#)
[Real Time Data Strategies
for Inventory Management](#)

Customer:

[Vestiaire Collective](#),
[Rent The Runway](#)

Use Cases:

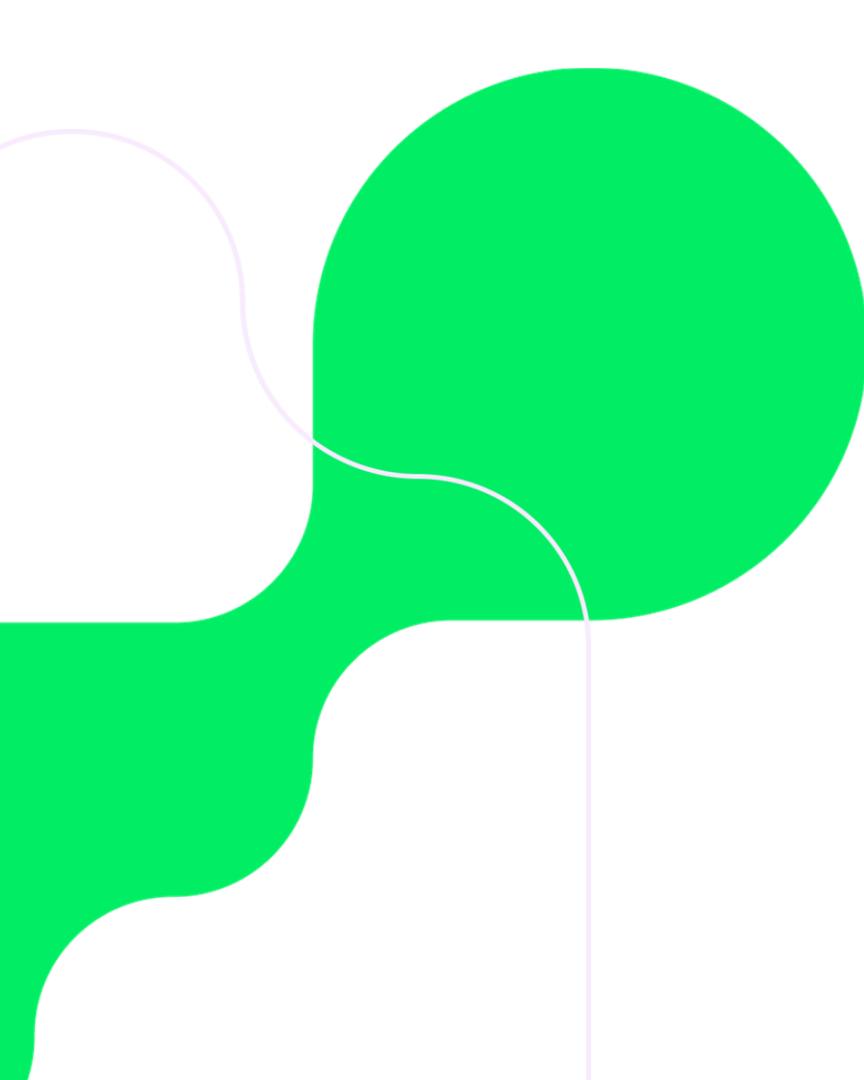
Analytics for Optimisation
Lifetime Product & Customer
Real time Stock
Demand Forecasting

Hero Content:

[Sustainable Retail ebook w.
GCP & MongoDB](#)
[Webinar: How retailers are
running green data
operations](#)

What's New in MongoDB?

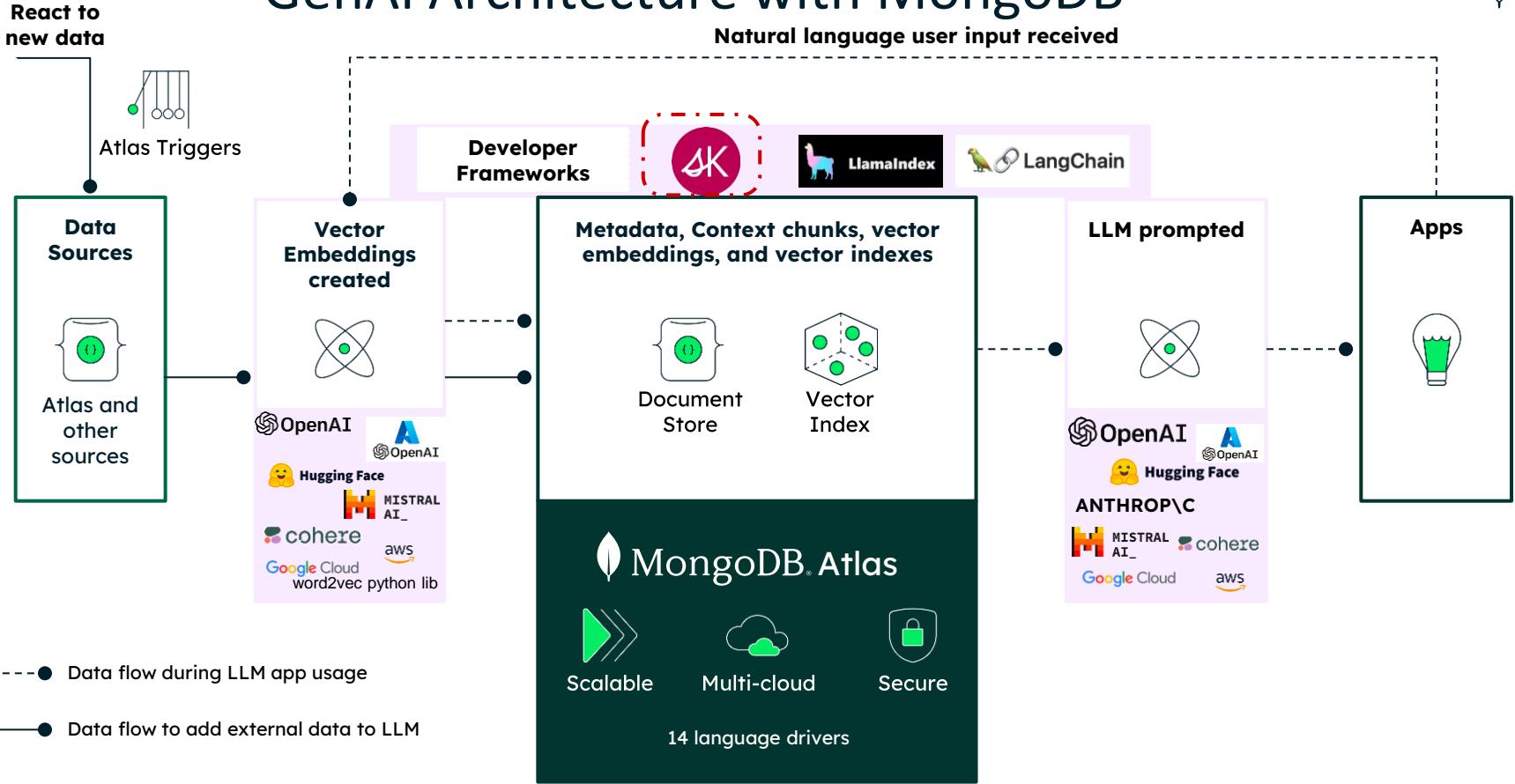


The background on the left side features abstract graphic elements. It includes a large, solid green circle at the top, a white circle partially visible behind it, and a green shape that tapers down towards the bottom. A thin, curved pink line runs vertically along the right edge of the green shape.

GenAI

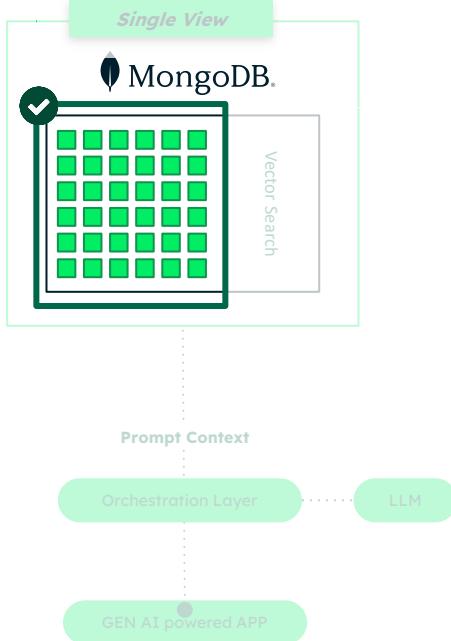
GenAI Architecture with MongoDB

Natural language user input received





Vector Embeddings Stored in Documents



```
_id: ObjectId('62f13a3fe7321ca47aecb216')
symbol: "ABMD"
quarter: 4
year: 2021
Date: 2021-04-29T20:10:40.000+00:00
Content: "Operator: Ladies and gentleman, thank you for standing by, and welcome..."
Content_embeddings: Array
  0: 0.03898080065846443
  1: -0.05879044905304909
  2: 0.04323239979442215
  3: -0.021337900310754776
  4: -0.036346953362226486
  5: 0.028689613565802574
  6: -0.03514527902007103
  7: -0.07414846867322922
  8: -0.00993054173886776
  9: 0.007234036456793547
  10: -0.03197460621595383
```



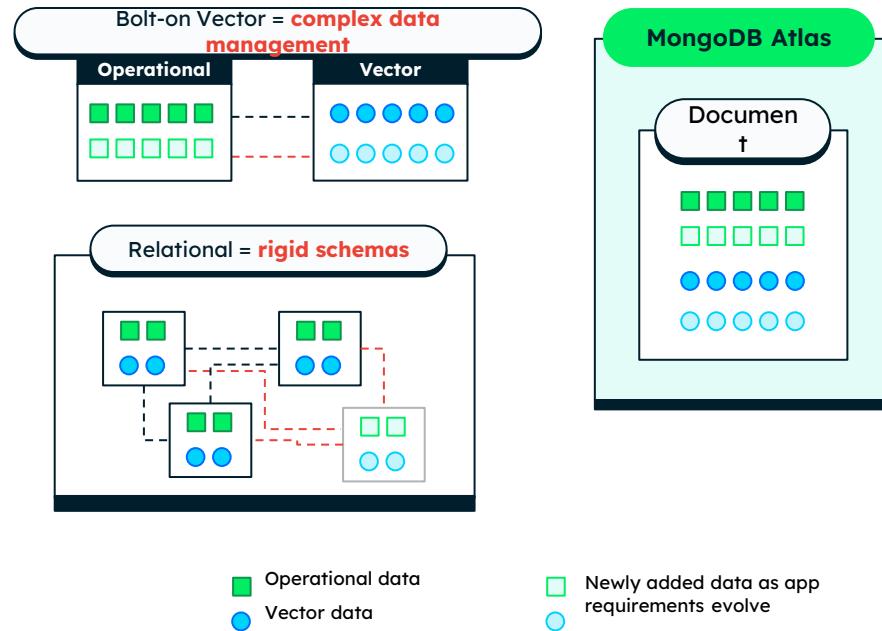
Start fast and stay agile with documents that allow for easy data modeling across multimodal data, including vectors

Simpler data modeling to start faster

Documents maps to how developers think and code, making it easier to model relationships between different data types, including vector embeddings

Flexibility to evolve and stay ahead

Documents are inherently flexible and versatile for storing richly structured multimodal data that powers LLMs and foundation models





Atlas Vector Search

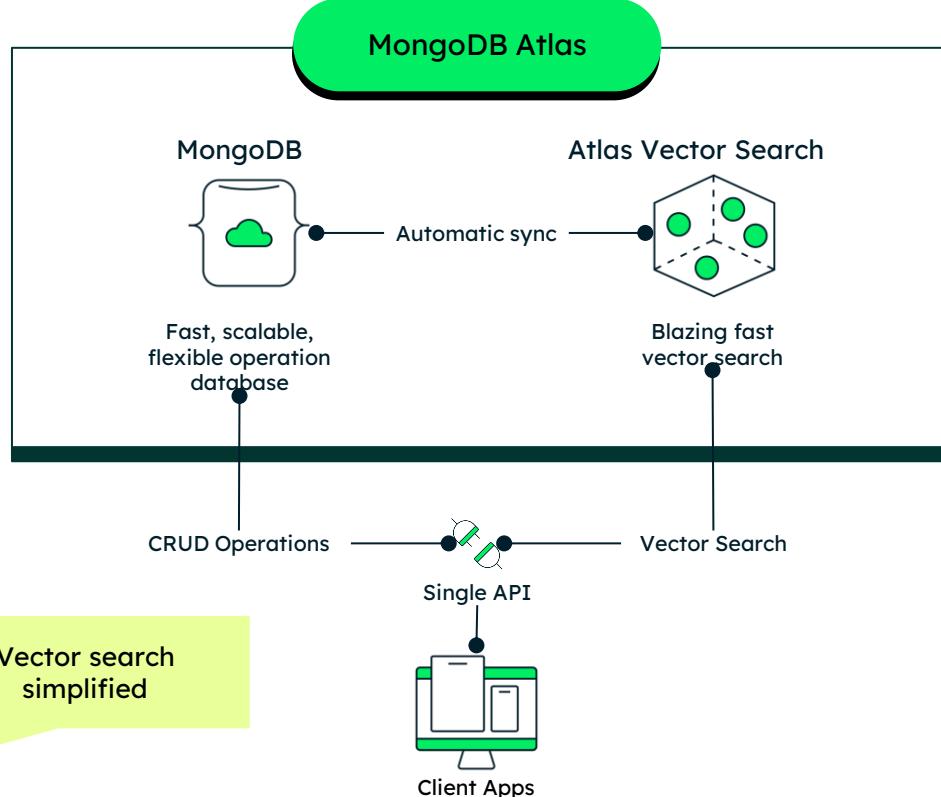
Integrated data platform that simplifies your application architecture

- Data is **automatically synchronized** between the database and vector index
- Developers work with database and vector search via the unified MongoDB Query API
- Fully managed service for you so you can focus on your application

Avoid the tax synchronization

Remove operational heavy lifting

Vector search simplified





Hybrid search combines the best of both worlds for the highest performance

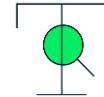


Vector Search

Works well with open-ended or imprecise questions
Highly efficient for high-dimensional data (docs, images, audios, videos)

Hybrid Search

Improved accuracy
Efficiently handles complex data
More robust search experience



Text Search

Fast and efficient for finding exact matches
Requires less computational resources and costs



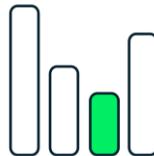
GenAI-driven development with MongoDB

Compass



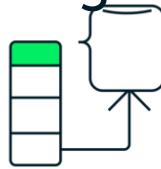
Use natural language
to generate MongoDB
query and aggregation
pipeline syntax

Charts



Use natural language to
generate visualizations
over live application
data

Relational Migrator



Auto convert SQL queries
and stored procedures
into MongoDB Query API
syntax

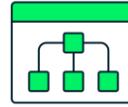
Relational Migrator



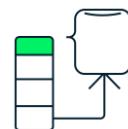


Relational
Migrator

Bring your relational workloads to MongoDB with confidence



Design an effective MongoDB schema, derived from an existing relational schema.



Migrate data from Oracle, SQL Server, MySQL, PostgreSQL, and SAP Sybase ASE* to MongoDB, while transforming to the target schema.

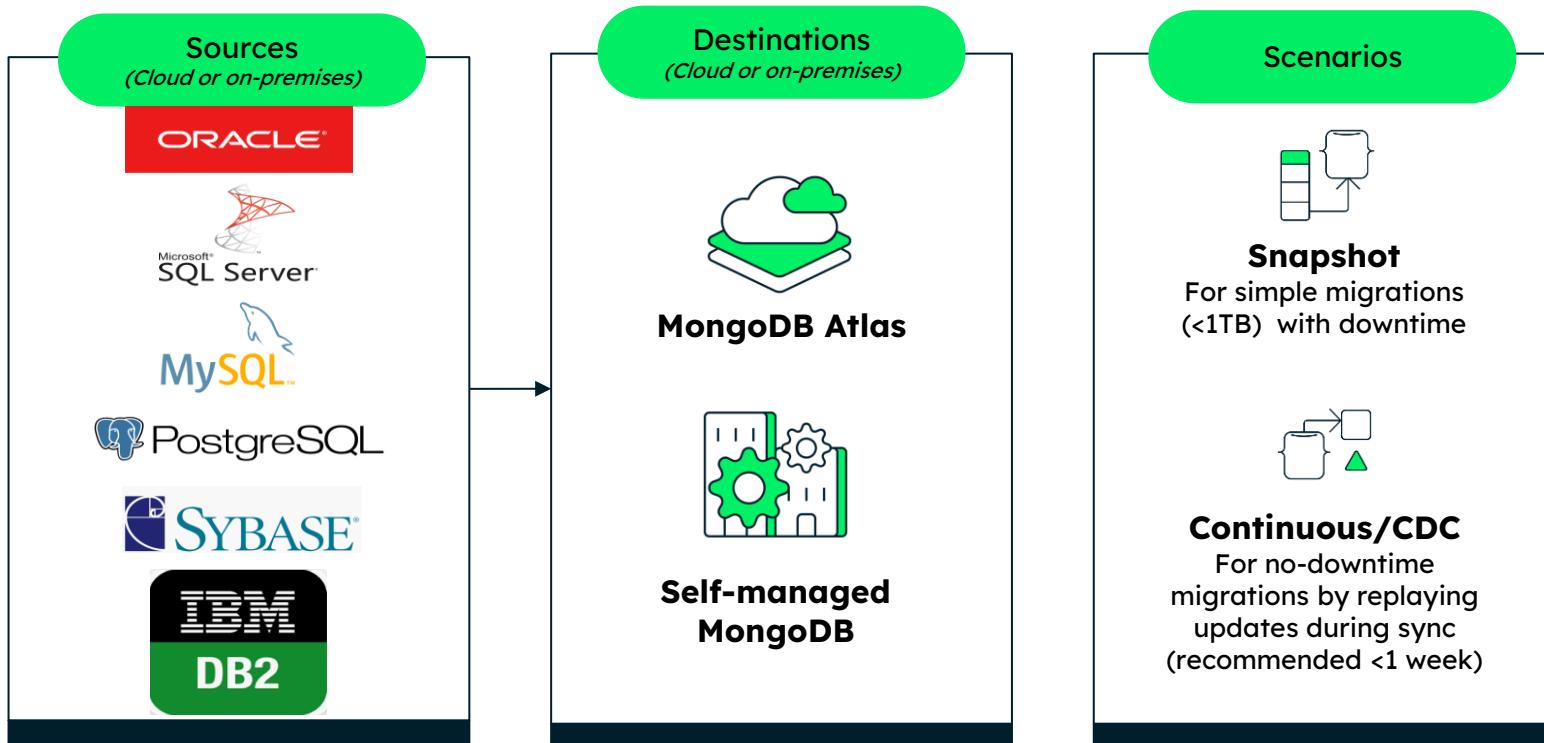


Generate code artifacts to reduce the time required to update application code.



Relational Migrator

Supported databases and scenarios



Schema recommendations

Accelerate your schema mapping by asking Relational Migrator to suggest a MongoDB schema for your workload.

Quickly apply recommended table mappings into a specific collection in your model.

The screenshot shows the Relational Migrator interface. At the top, there's a navigation bar with three dots (red, yellow, green) and the text "Relational Migrator". Below it is a flow diagram with three steps: 1. Select tables (done), 2. Define initial schema (in progress), and 3. Name project (not started).

The main area is titled "Define your initial schema". It includes a "Global casing" dropdown set to "camelCase", and a "Initial mappings" section with three options: "Start with a MongoDB schema that matches your relational schema" (radio button), "Start with a recommended MongoDB schema" (radio button, selected), and "Start with an empty MongoDB schema". A note below says: "Relational Migrator has recommended which tables should become top-level collections for your MongoDB schema. Tables that are not selected may be embedded into parent collections. You can modify this list or proceed with the recommendations."

The "Imported Tables" section lists tables from the "northwind" database under the "public" schema, including categories, customerCustomerDemo, customerDemographics, customers, employeeTerritories, employees, orderDetails, and orders. To the right, the "New MongoDB Collections" section shows the recommended schema structure. Arrows point from the imported tables to their corresponding MongoDB collections: customers to customers, employees to employees, and orders to orders. Other tables like categories, customerCustomerDemo, and customerDemographics are listed as "EMBEDDABLE". Buttons for "TOP-LEVEL" and "EMBEDDABLE" are available for each table. A note at the bottom says "5 of 14 tables selected to become collections".

The right side of the interface displays a "Suggested mappings" panel with three items:

- employee_territories NEW**: Embedded array. Status: NEW, checked.
- employees NEW**: Embedded documents. Status: NEW, checked.
- region NEW**: Embedded documents. Status: NEW, checked.

At the bottom of the panel are "Ignore" and "Apply" buttons.

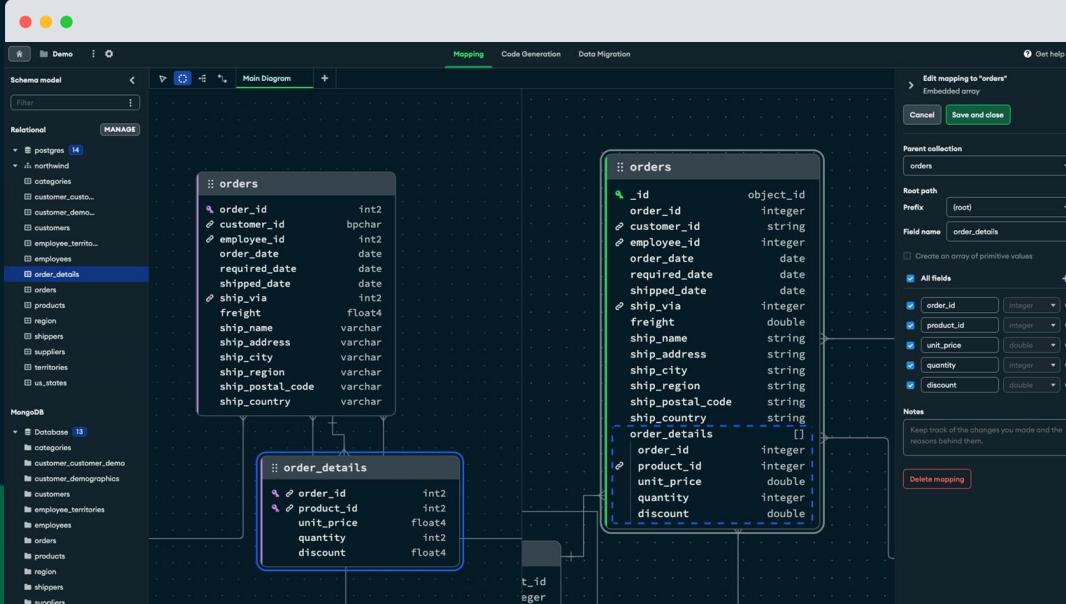
Mapping and modelling

Get a MongoDB schema recommendation based on your relational model, or start with a blank slate.

Use the ER-style diagramming interface to visualise your schema to make mapping decisions.

Split or merge tables across collections.

Embed a table as a nested document or array in an existing collection.



Data synchronization

Replicate data from Oracle, MySQL, SQL Server or PostgreSQL to MongoDB (Atlas or on-prem.)

Use the saved mapping definitions to transform data to the MongoDB schema as it's replicated.

Replication can be one-off or continuous.

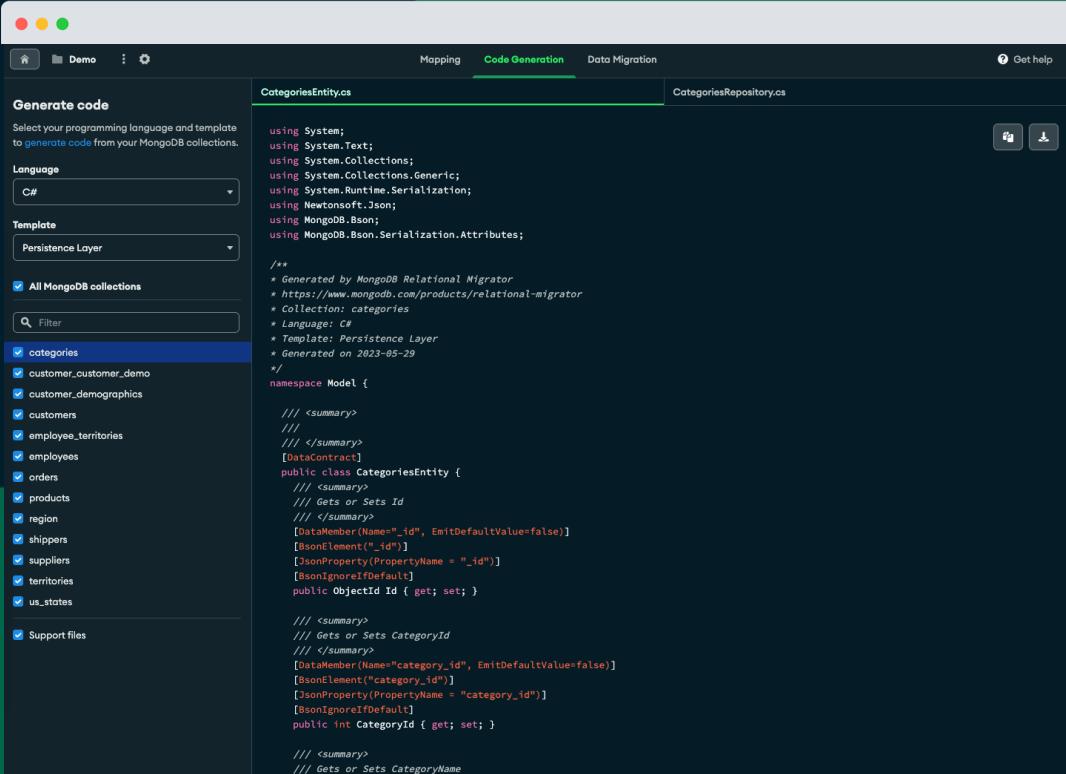
The screenshot shows a software interface for data migration. At the top, there are tabs for 'Mapping', 'Code Generation', and 'Data Migration' (which is currently selected). Below the tabs, there's a 'History' section showing a single entry for today at 3:35 PM, which took 3 seconds. The 'Job overview' section details the migration: Source URI is `jdbc:postgresql://*****.us-east-1.rds.amazonaws.com/postgres`, Destination URI is `mongodb+srv://user:password@cluster0.pfnzv.mongodb.net/rm-demo`, and the Job Mode is 'Snapshot'. The 'Snapshot stage' is marked as 'COMPLETED'. Below this, the 'Started' time is listed as 'Today at 3:35 PM', 'Duration' as '3 sec', 'Tables migrated' as '14 of 14', and 'Rows migrated' as '3,362'. An 'Issues' section shows '0' issues. To the right, a modal window titled 'New Migration Job' is open, showing a flowchart with three steps: 'Connect Source DB', 'Connect Destination DB', and 'Migration Options'. It also includes sections for 'Specify your migration options', 'Migration Options' (with 'Mode' set to 'Snapshot'), 'Rows' (with an unchecked checkbox for 'Drop destination collections before migration'), 'Errors' (with a 'Stop after' input set to '100' errors), and 'Data Verification' (with an unchecked checkbox for 'Verify migrated data'). At the bottom of the modal are 'Back', 'Cancel', and 'Start' buttons.

App code generation

Use information known about the new schema to accelerate development of new code

Includes code generation of entity classes, persistence layers and APIs

Support for the most popular languages (C#, Java, JavaScript, JSON) and frameworks



The screenshot shows the MongoDB Relational Migrator application window. At the top, there are tabs for Mapping, Code Generation (which is selected), and Data Migration. On the left, a sidebar titled "Generate code" allows selecting a programming language (C#) and template (Persistence Layer). A list of MongoDB collections is shown with checkboxes, and "categories" is checked. Below this is a "Filter" input field and a "Support files" checkbox. The main area displays the generated C# code for "CategoriesEntity.cs". The code includes namespaces for System, System.Text, System.Collections, System.Collections.Generic, System.Runtime.Serialization, Newtonsoft.Json, MongoDB.Bson, and MongoDB.Bson.Serialization.Attributes. It also includes a copyright notice for the MongoDB Relational Migrator and its generation date (2023-05-29). The generated class "CategoriesEntity" has properties for CategoryId (ObjectId), CategoryName (string), and Description (string). The "CategoryName" property is annotated with [DataMember(Name = "category_name", EmitDefaultValue = false)], [JsonElement("category_name")], [JsonProperty(PropertyName = "category_name")], and [JsonIgnoreDefaultValue]. The "Description" property is annotated with [DataMember(Name = "description", EmitDefaultValue = false)], [JsonElement("description")], [JsonProperty(PropertyName = "description")], and [JsonIgnoreDefaultValue]. The code uses XML-style comments for summaries and descriptions.

```
using System;
using System.Text;
using System.Collections;
using System.Collections.Generic;
using System.Runtime.Serialization;
using Newtonsoft.Json;
using MongoDB.Bson;
using MongoDB.Bson.Serialization.Attributes;

/*
 * Generated by MongoDB Relational Migrator
 * https://www.mongodb.com/products/relational-migrator
 * Collection: categories
 * Language: C#
 * Template: Persistence Layer
 * Generated on 2023-05-29
 */
namespace Model {

    /// <summary>
    /// 
    /// </summary>
    [DataContract]
    public class CategoriesEntity {
        /// <summary>
        /// Gets or Sets Id
        /// </summary>
        [DataMember(Name = "_id", EmitDefaultValue = false)]
        [JsonElement("id")]
        [JsonProperty(PropertyName = "_id")]
        [JsonIgnoreDefaultValue]
        public ObjectId Id { get; set; }

        /// <summary>
        /// Gets or Sets CategoryId
        /// </summary>
        [DataMember(Name = "category_id", EmitDefaultValue = false)]
        [JsonElement("category_id")]
        [JsonProperty(PropertyName = "category_id")]
        [JsonIgnoreDefaultValue]
        public int CategoryId { get; set; }

        /// <summary>
        /// Gets or Sets CategoryName
        /// </summary>
```

Relational Migrator : GenAI SQL Conversion



The screenshot shows the Relational Migrator interface. On the left, there's a sidebar with 'northwind' selected, 'Generate App Code', and 'Query Converter' (which is active). Below it are sections for 'Queries' and a preview of a generated Java code snippet.

SQL Query: SELECT o.OrderId, o.OrderDate, od.ProductId, od.Quantity FROM orders o INNER JOIN order_details od ON o.OrderId = od.OrderId

Converted MongoDB Query:

```
List<Document> query(MongoDatabase db) {  
    List<Bson> pipeline = Arrays.asList(  
        Aggregates.unwind("$orderDetails"),  
        Aggregates.project(  
            Projections.fields(  
                Projections.include("_id", "OrderDate"),  
                Projections.computed("Quantity", "$orderDetails.quantity")  
            )  
        );  
    return db.getCollection("orders").aggregate(pipeline).into(new  
    )  
}
```

Target Language: Java

Buttons: Convert, Undo, Redo

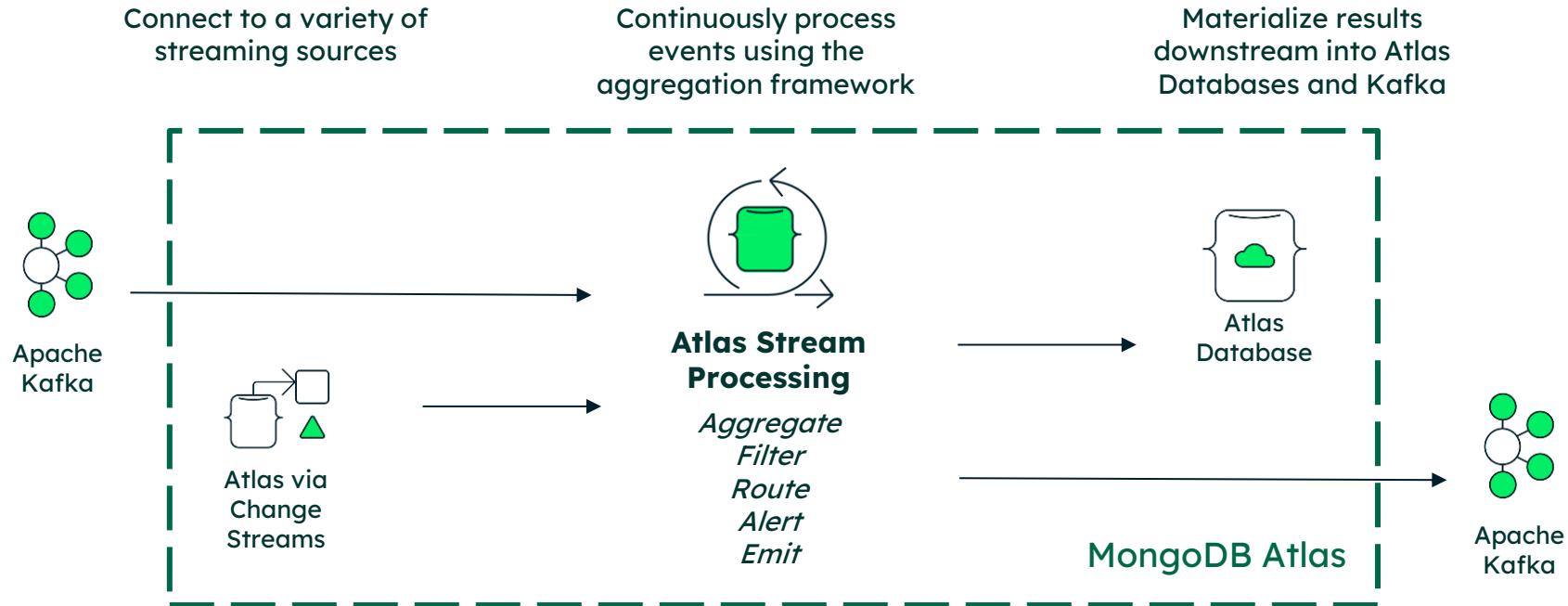
Application analysis

Query conversion

Code conversion

Code generation

Atlas Stream Processing unifies the experience for working with data in motion and data at rest

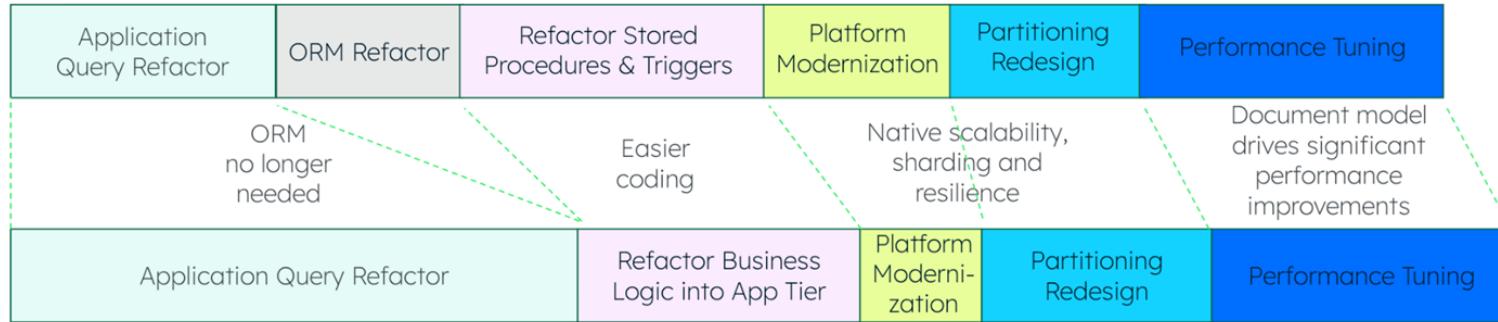


Modernization

Lift & Shift or Transform



Commercial to Open Source RDBMS



RDBMS to MongoDB

Lift and shift between relational databases
still represents a **major** migration effort

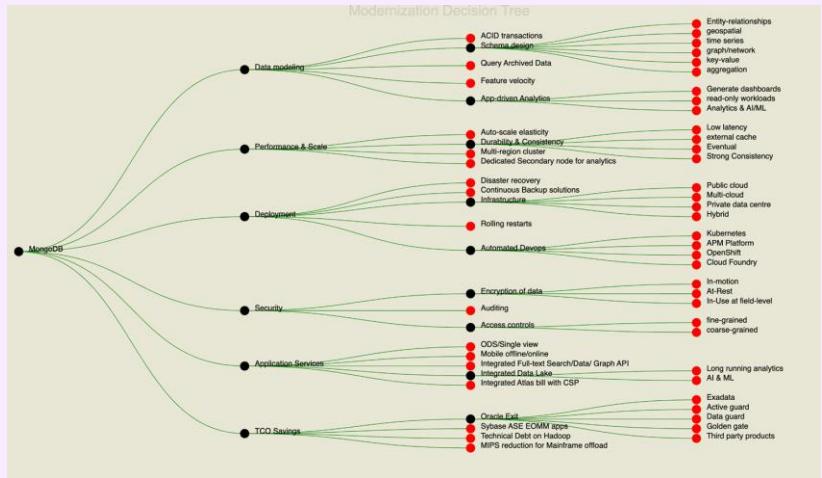
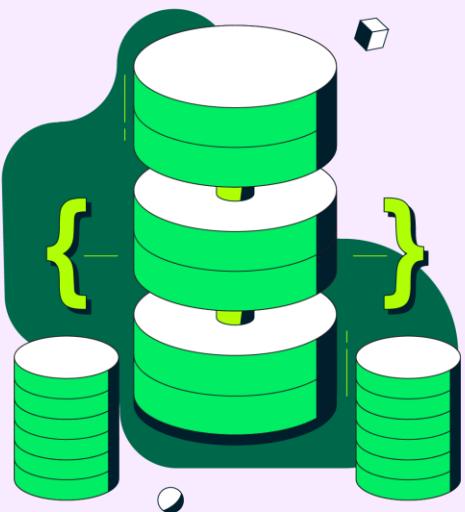
Decision Tree





Pre-assessment

Application Assessment Decision Tree



Application Assessment Decision Tree

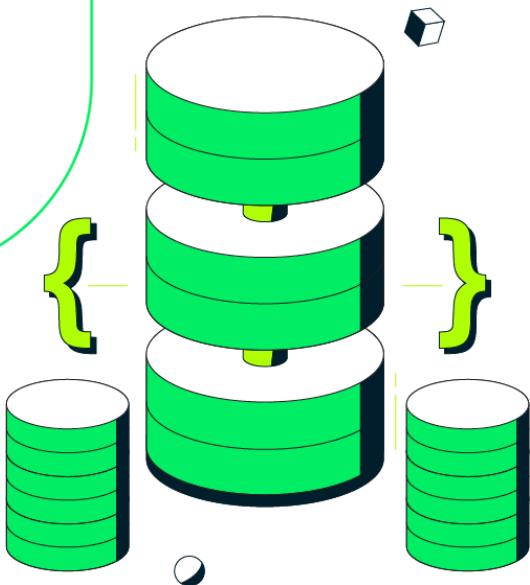
MongoDB's [Application assessment decision tree](#) facilitates application inventory and visualization of the portfolio to enable rapid and effective decision making.

Modernization Toolkit





MongoDB Modernization Toolkit



<http://www.mongodb.com/modernize>

How your company can get here

The entire journey can be summarized in four simple steps:

1. Analysis: Where do I start my data journey to drive the fastest value?
2. Scaffolding: How do I get my data out of the existing platform and bridge it to the new platform?
3. Coding: How do I enter the world of adjusting and adapting my applications landscape?
4. Innovation: Which are the easiest targets for my company to start achieving true innovation?

Modernization Scorecard Overview / Exercise





What good looks like

Template:

https://docs.google.com/spreadsheets/d/1Z1bXOGDhBG6ntdz2m0_1Jnc1lvQDtyFY/edit#gid=1971963640

Example:

https://docs.google.com/spreadsheets/d/1YV9Y_eaKy9346A809iUGEAJFc6BBUM9W/edit#gid=215009602

Final Presentation Overview



Select a Case Study

Select a case study which will serve as the basis of this assessment. How to identify a use case:

- Monolithic Architecture
- Underlying Technologies
- Built on relational database
- Legacy workloads
- Traditional Development Practices
- Downtime Issues
- Performance Issues
- Scalability

Any current/previous projects that you are/were part of which has business pain points (Downtime issues, Cost Issues) or Technical pain points (Scalability, Backup, Monolithic Architecture, Longer Application lifecycle)



Prospective Topics for Architect certification program

Deliverables

- Powerpoint presentation explaining below topics
- Decision Tree(screenshot) & Modernization scorecard (excel sheet)
- Optional: Video of the candidate running through the powerpoint presentation explaining the solution deck
- Problem statement/Use case description
- Current state landscape
- Future state landscape / End to end solution architecture
- 3 Whys (Why to do it, why now and why mongodb)
- Decision Tree Screenshot
- MongoDB Modernization scorecard (Prepare scorecard against the competition)
- TCO / Pricing -Optional
- Comparison analysis with competition
- Tech stack
- Customer proof points -Optional





How to access?

Welcome, Ashley!

No MongoDB
Certifications Yet
[Register Today ➔](#)

9

COMPLETED UNITS

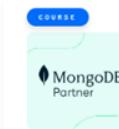
0

UNITS IN PROGRESS

37

LEARNING HOURS

Completed



SI Associate MongoDB Overview

100% Complete | 1 Hour



SI Associate MongoDB Use Cases

100% Complete | 30 Minutes



SI Associate MongoDB Modernization Toolkit

100% Complete | 30 Minutes

[View All](#)

Learn MongoDB and Advance Your Career.

Free MongoDB courses - practice your skills with hands on labs and quizzes, and earn MongoDB certification.

Featured Learning

[See All Content →](#)

Getting Started with MongoDB Atlas

Curious about MongoDB Atlas? This free MongoDB Atlas course will



Introduction to MongoDB

You'll be guided through the foundational skills and knowledge



MongoDB and the Document Model

Learn about MongoDB and the document model in this quick



MongoDB Data Modeling Intro

In this course, learn the basics to data modeling in MongoDB's

MongoDB Training

X SI Architect Sort by

Learning Format
Course (5)
Learning Path (1)

Role

Expertise Level

Product

Spoken Language

SI Architect Certification Program

This free, self-paced certification is customized for our System Integrator...

Learning Path | 12 Hours

[View Details](#)

SI Architect Final Assessment

Submit the following assessment to earn your SI Architect certification.

Microcourse | 5 Hours

[View Details](#)

SI Architect MongoDB Use Cases

Understand the use cases where MongoDB can solve key customer challenges.

Microcourse | 1 Hour

[View Details](#)

SI Architect Market Intelligence

What makes MongoDB different? How does MongoDB compare to other database pl...

SI Architect Relational Migrator

Learn how to bring relational migrator workloads to MongoDB with confidence...

SI Architect App Driven Analytics and

Helps you to understand how MongoDB (a transalytical data platform) provides...

SI Architect Certification Program

This free, self-paced certification is customized for our System Integrator(SI) partners to empower you to discuss the benefits of modernization with various customers on their cloud journey. SI Associate is a pre-requisite to SI Architect. This second stage on-demand architect certification will enable graduates to identify where MongoDB applies and why use it within an architecture, and how MongoDB works within a given ecosystem.

SI Associate is a pre-requisite to SI Architect. Please ensure you have passed your [SI Associate](#) before registering for the SI Architect.

PARTNER Only course, please sign in (upper right corner) to obtain access to this course or to register.

[Register Now](#)

SI Associate is a pre-requisite to SI Architect.

PARTNER Only course.

Please login to obtain access.

8 Hours

FREE

SI Architect Certification Program

SI Certification Program Overview

REQUIRED



Microcourse | 5 Minutes

Welcome to the SI Certification Program.

[View Details](#)

SI Architect Market Intelligence

REQUIRED

[← Back to Dashboard](#)

SI Architect Certification Program

This free, self-paced certification is customized for our System Integrator(SI) partners to empower you to discuss the benefits of modernization with various customers on their cloud journey. SI Associate is a pre-requisite to SI Architect. This second stage on-demand architect certification will enable graduates to identify where MongoDB applies and why use it within an architecture, and how MongoDB works within a given ecosystem.

SI Architect Certification Program

REQUIRED [SI Certification Program Overview](#) REQUIRED

Microcourse | 5 Minutes

Welcome to the SI Certification Program.

 Completed

REQUIRED [SI Architect Market Intelligence](#) View Details

Microcourse | 30 Minutes

What makes MongoDB different? How does MongoDB compare to other database platforms? Check out the comparison guides in this course to learn more.





About the Final Assessment

- Select a Case Study
- Create a PowerPoint presentation
- Complete the Modernization Scorecard
- Optional: Record a video





Search X Hide

Instructions ▼

Download: The Certification Deck
PowerPoint Template and
Modernization Scorecard Template

Submit your SI Architect Assessment

Optional: Upload a recorded video

Thank you for your submission.

Progress 25%
25% Complete

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Resources & Forums

Assignments

Notes

Workbooks

Get Support

FAQS

SIGN OUT

Submit your SI Architect Assessment

Previous Next Bookmark

Upload your Modernization Scorecard as an excel (.xlsx) file.

Click Choose File below and upload your .xlsx file. Once submitted, an instructor will work to grade your submission. Thank you.
(Please note: our system may reject any other file format.)

Need to know how to convert your google sheet to the excel format go here: <https://www.howtogeek.com/7579...>

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1 2 3 4

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SI Architect Final Assessment

Q Search x Hide

Instructions ▼

[Download: The Certification Deck PowerPoint Template and Modernization Scorecard Template](#)

Submit your SI Architect Assessment

Optional: Upload a recorded video

Thank you for your submission. ✓

Progress 25%

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SIGN OUT

Thank you for your submission.

Previous < Next >

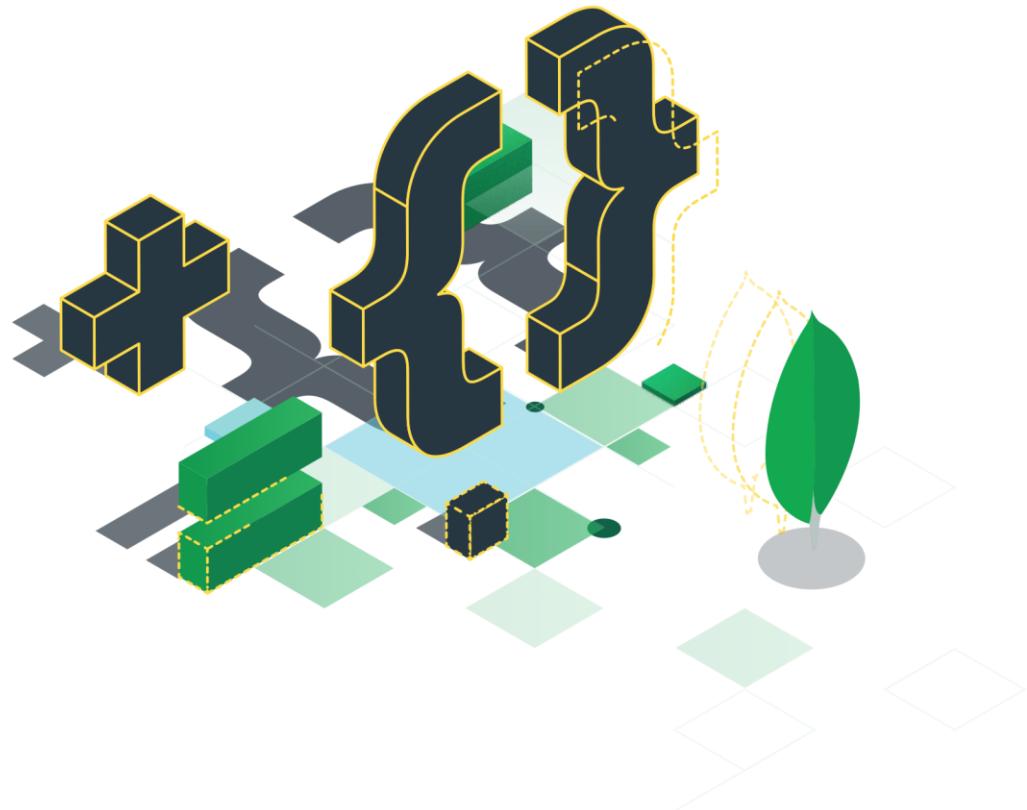


Thanks for your submission!

- Please allow up to 5 business days for us to review and grade your submission.
- You will be alerted via email when you are marked as passed/complete. At that time, you can download your certificate from your learning dashboard.
- If your submission is incomplete, you will see the feedback on your submission in this learning path.
- Questions? Contact partners@mongodb.com

Questions? Contact partners@mongodb.com.

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Questions & Answers





Thank you for
your time.

MongoDB Application Delivery Certification
July 2024

Curriculum Overview: Part 1

Part 1: Foundational Learning (Self-paced E-learning)

Developer Fundamentals Course (4h)	<ul style="list-style-type: none">• What is MongoDB?• How to access MongoDB• Storage and Retrieval	Cover in detail what MongoDB is, its strengths, its use cases, how to get up and running, and the breadth of powerful functionality for storing and retrieving data.
Optimizing Storage and Retrieval Course (4h)	<ul style="list-style-type: none">• Indexing• Profiling• Aggregation	Cover the fundamentals of indexing in theory and in practice, how to profile database operations to identify bottlenecks, the aggregation query language and how to move beyond simple retrieval of raw data to in-database computation.
Design Skills and Advanced Features Course (4h)	<ul style="list-style-type: none">• Advanced Features• Schema Design• Application Development	Cover a broad set of MongoDB functionality beyond simple storage and retrieval, best practices for application development, and design of application code and database schema (<i>the most important part of a well-written MongoDB application</i>).
Production-Ready Development Course (4h)	<ul style="list-style-type: none">• Replication• Sharding• Security	Cover a set of topics that make an application fit for production. What does a developer need to do to ensure their application is secure, to ensure it is highly available and protects data, and to ensure it will scale when required in future?

Curriculum Overview: Part 2

Part 2: Advanced Practice (Hands-on Labs)

Lab (6h)	Basics for Developers	Learn how to automate with bash and perform conditional operations. Learn jq and how it can help you reshape JSON data before it goes near MongoDB.
Lab (6h)	MongoDB Drivers	Understand some of the most common language drivers used by MongoDB.
Lab (8h)	Queries and Aggregation	Practice aggregation skills and learn how to use some of the less well known aspects of the aggregation pipeline.
Lab (2h)	Computed Pattern	Test your ability to optimize and redesign an application and implement some common schema design patterns
Lab (2h)	Attribute Pattern	
Lab (4h)	Authentication / Authorization	Understand how to set up basic authentication and authorization, as well as other security requirements.

Final Exam (Proctored final assessment)

Expected Duration: 180 minutes