



# The Customer *Analytic Record*

Unlock CX personalization and  
profits in financial services



# How well do you know your customers?

In today's rapidly evolving financial services landscape, the need to improve customer experience (CX) is more pressing than ever. The relentless push for digital transformation, escalating customer demands, intensifying competition from fintech disruptors, regulatory scrutiny, and the reverberations of the pandemic collectively underscore the urgent need for swift action. Focusing on CX is not only essential for attracting and retaining profitable customers, but also for remaining competitive and compliant in an increasingly digital and customer-centric financial services world.

Unlocking an exceptional customer experience hinges on cultivating deeper customer intimacy and implementing hyper-personalization strategies. At the core of this endeavor lies the critical ingredient for success: leveraging

vast amounts of customer data with finesse and ingenuity. By harnessing this wealth of information, businesses can glean real-time insights and swiftly translate them into actions that elevate each customer's journey, leaving a lasting impression of satisfaction and delight. According to Gartner, a staggering 84% of surveyed leaders in customer service and support recognized customer data and analytics as very or extremely important to achieving key organizational goals.<sup>1</sup>

Advances in analytics enable financial institutions to bridge operational and analytical data to gain valuable insights into customer behavior and preferences. New tools and technology can mine and activate the untapped value of customer data in all facets of financial services. One critical concept for effective and efficient customer data usage is the Customer Analytic Record (CAR).



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# The Customer Analytic Record (CAR)

## Maximize the value of your customer data

A Customer Analytic Record is a centralized repository of customer data that provides a comprehensive view of each customer's demographics, interactions, transactions, and preferences across multiple touchpoints and channels. By analyzing the data stored in the CAR, financial services organizations can understand their customers better and identify trends, patterns, and insights that can inform data-driven, strategic decisions. They can create customized offers, recommendations, and communications that resonate with their audiences. A centralized CAR also simplifies data management and reduces the need for manual data reconciliation across disparate systems. This streamlines multiple processes and enables banks and insurers to respond more efficiently to customer inquiries and requests.

### Customer Analytic Record

A robust data program delivering important strategic advantages including:

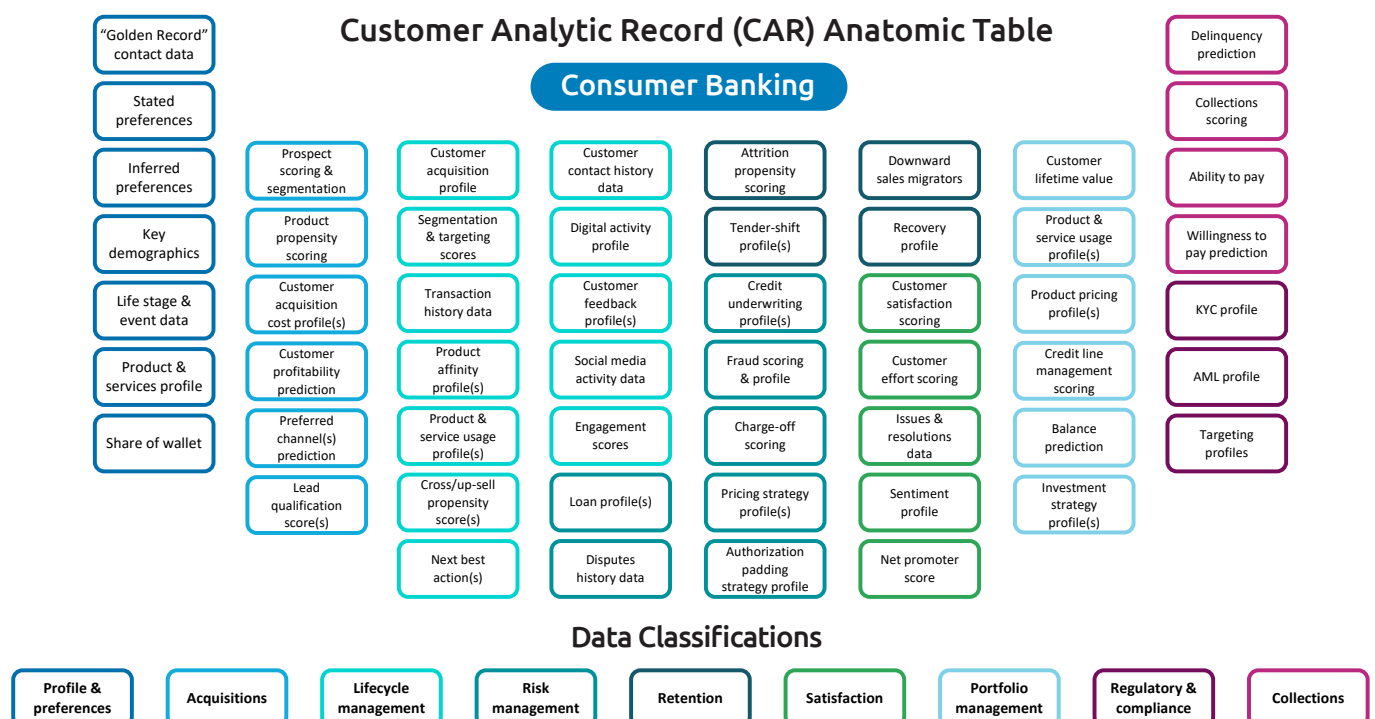
- Improved customer experience and satisfaction
- Reduced customer attrition
- Increased customer personalization and tailoring
- Enhanced cross-selling and upselling
- Advanced risk evaluation and underwriting
- Optimized customer service processes
- Product and services right-sizing
- Improved fraud detection

A comprehensive CAR typically includes a wide variety of data components spread across numerous data-type classifications. Figure 1 provides a representative example of the anatomy of a data-rich CAR for Retail Banking. While the benefits are numerous, developing and implementing a CAR system comes with its own set of challenges. These include combining data from various sources and systems, especially when dealing with legacy systems or siloed data; ensuring data accuracy, completeness, and consistency, as well as scalability;

compliance with data privacy regulations to ensure that customer data is handled securely and ethically; and change management concerns due to revisions in processes, workflows, and even organizational culture.

Capgemini assists clients in determining the most effective composition for their CAR by facilitating an exploration of cross-functional customer data leveraging our proprietary measurement and insights ideation framework.

Figure 1. A sample Customer Analytic Record anatomic table



# Building out the CAR solution that is right for your organization

The CAR is platform-agnostic, allowing deployment across a wide range of technologies. To begin or refine an existing CAR journey, financial services organizations must select a solution that is best suited for their business based on their current technical landscape. Recommended developmental steps include:

- Collaborate with product and cross-functional teams to define the desired anatomy for the CAR.
- Once defined, assess the existing data estate to determine if there are any gaps in data availability or coverage required to generate the algorithms that will form the CAR's attributes inventory.
- For any gaps identified, determine if there is a true need for the information by developing a business case based on the cost and effort required to address it.
- Perform a capability assessment on enabling technologies and applications. Identify design considerations or additional needs for consumption of the customer data in real-time.
- Look across CAR use cases and prioritize them using the lenses of business value and level of effort. This will inform the deployment roadmap.
- Transform CAR into data products that can be leveraged by different lines of business within the enterprise.

The CAR will continue to evolve as new data sources emerge and analytic capabilities become more sophisticated. It is important that organizations continue to enhance the record and its integration points to

realize the true value of this critically important information. Capgemini has extensive experience working with clients to develop, deploy, and refine their CAR solutions using various platforms and technologies.



**80%** of consumers say that the customer experience a company provides is as important as its products or services.<sup>2</sup>



# Tools to help make the CAR more user-friendly

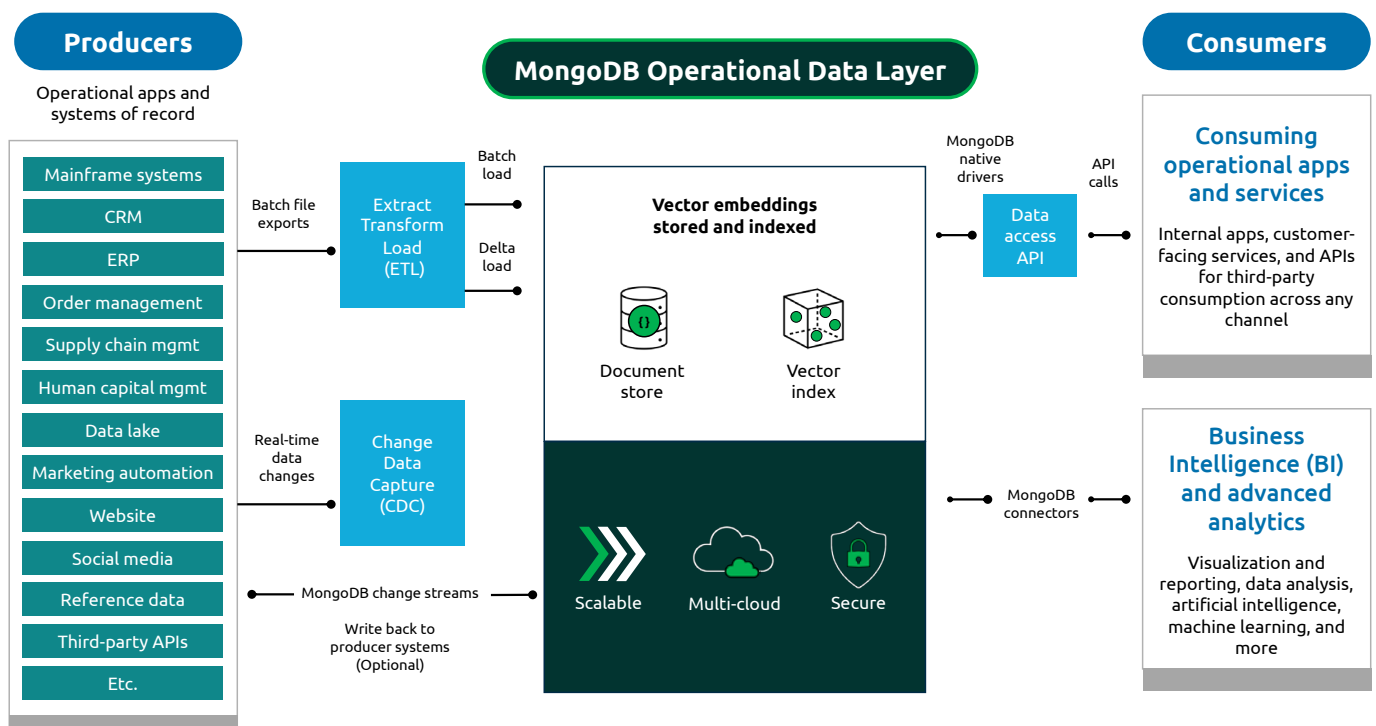
Choices made in data management, application development, and new technologies can help banks and insurance companies take full advantage of their CAR.

## A NoSQL database is the right answer for building an enterprise operational data layer

Today, applications collecting customer data mostly rely on relational databases comprised of hundreds of tables. Multiple applications source customer information, leading to thousands of tables siloed in their respective databases. On top of that, individual

application owners often have the independence to modify the data structure to adapt it to their needs, leading to asynchronous data across databases. Bringing together data from disparate record systems to provide as a single source of data, and prepare it in one data layer for building out an organizational CAR, is extremely complex yet critical to success. (Figure 2)

Figure 2. How a single operational data layer streamlines data availability and analysis



However, with the evolution and maturity of NoSQL databases today, this can be simplified. An operational data layer (ODL) built on a flexible, scalable, secure, and high-performing NoSQL database – sourcing data from disparate systems of records, storing it in structured and semi-structured

format, and seamlessly feeding it into analytical systems – is the optimal way forward. The ODL then acts as a real-time data source that can be classified as the source of truth for developing and achieving the cross-functional anatomy of your CAR.



## Generative AI can add new potency to CAR data and results

Generative AI can be used to either solve for or assist with code generation for required complex calculations and robust analytic model development aimed at revealing customer insights and providing a competitive edge. Generative AI can leverage data contained within the CAR to enable hyper-personalization at scale, improving the customer experience by enabling a more tailored foundation and proactive relationship with consumers. Specifically, generative AI can enhance customer service optimization (background, queuing, applications display, and more), customized product and service offerings, financial advisor intelligence, and self-service applications such as humanized AI chatbots to optimize issue resolution.

## Harness the power of vector search, made possible by generative AI

One highly contextual and efficient technique encompassed in generative AI is vector search which can be used in information retrieval and machine learning to find similar items based on their vector representations. In vector search, each item is represented as a high-dimensional numerical vector, with each dimension corresponding to a feature or attribute of the item. The similarity between two items is then measured using a distance metric, such as cosine similarity or Euclidean distance, applied to their vector representations.

Advances in AI now mean that we can generate such vectors more quickly and with even better contextual relevance. In turn, it's now easier to generate queries using nearest-neighbor calculations and use more sophisticated algorithms to compare data numerically. Overall, vector search is a versatile and powerful capability that offers numerous benefits for information retrieval and machine learning applications. Its efficiency, scalability, flexibility, and accuracy make it a valuable tool that can handle large datasets and provide personalized and relevant recommendations to users.



# Make customer data work harder to drive superior CX and business results

While the need to capitalize on the value of data is recognized by most organizations, fully capturing it remains elusive for many. There is still a lot of work to be done as digital transformation – or intelligent transformation – moves forward across the financial services industry in both the U.S. and globally. Research from Capgemini indicates that only half of all organizations have a customer data platform that provides a truly unified overview of the customer,

resulting in just one of ten marketers being truly data-driven.<sup>3</sup>

The development and implementation of a robust CAR is an essential step for the financial services firms looking to gain a deeper understanding of their customers and make data-driven decisions. It can be the key to hyper-personalized CX and future growth momentum.

## Leveraging CAR in the insurance industry



### Business objective

1

Strengthening field marketing for new customer relationships



### Business need

2

An insurance services field sales representative needs to prepare for a meeting with an existing customer recently added to their portfolio. The customer has recently experienced key life events, including marriage, that may point to new or different coverage needs. However, the sales representative does not know this customer and needs to build a personal rapport and demonstrate continuity to protect retention.



### Business response

3

Real-time processing of the CAR allows expedited knowledge transfer of prior client interactions, demographics, likelihood of needed services, and recent life events in an easy-to-comprehend synopsis using a custom generative AI- and NLP-enabled virtual assistant. Knowing the client's history empowers the sales representative to propose products and services most likely to be favorably considered.



# Case Study - Banking

## A retail bank successfully curbs customer attrition and boosts customer retention with personalized products and services.

The marketing department of a large retail bank was struggling with high customer attrition. They needed help understanding their customers' profiles, preferences, demographics, key life events, recent transactions, negative triggers, and other traits to build deeper customer relationships and identify segments likely to leave.

By analyzing their customers' data DNA through the Customer Analytic Record, the bank gained critical insights into their customer relationships. This enabled the bank to maximize campaign budgets by targeting optimal audiences and addressing customer needs with personalized products and services at the right time.

**Customer:** Daniel H. Smith (51 years old)

**Segments:** High opportunity, Demand Deposit Account (DDA) & 529 Plan, homeowner, traveler, self-directed investor

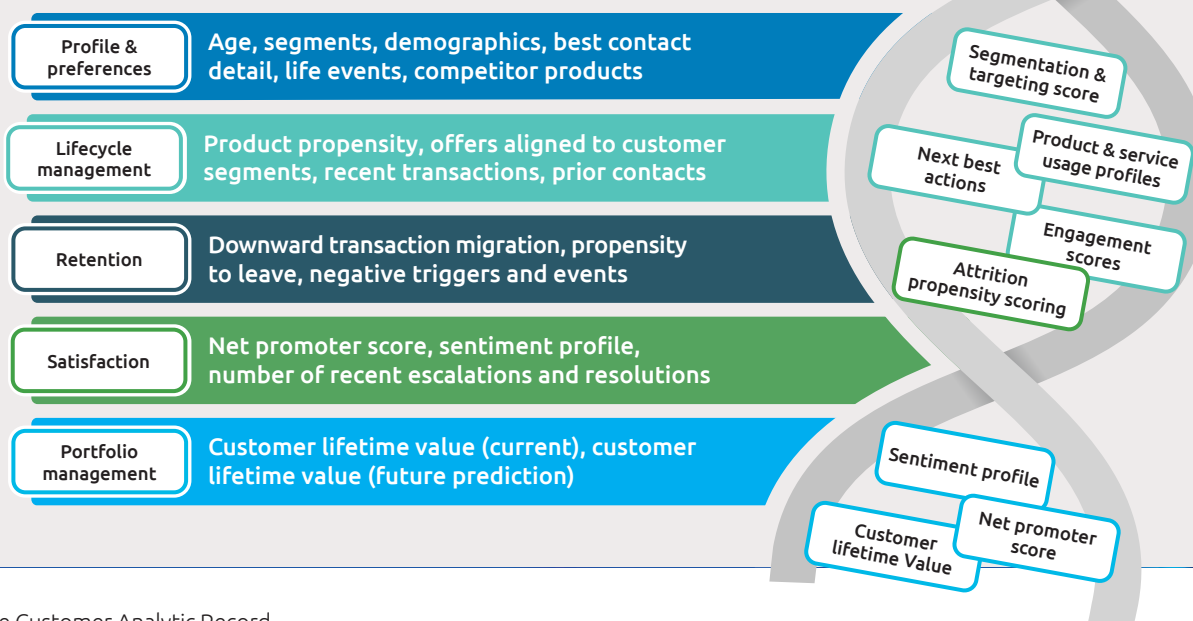
### Offers aligned to customer segments:

- Financial Advisor (FA) relationship review
- Travel credit card (cross-selling)
- Make-it-right (customer satisfaction)
- Engagement (retention)
- Benefits awareness

### Next best action:

- Engagement (retention)
- Offer type: Surprise and delight

### Daniel H. Smith's customer profile and traits



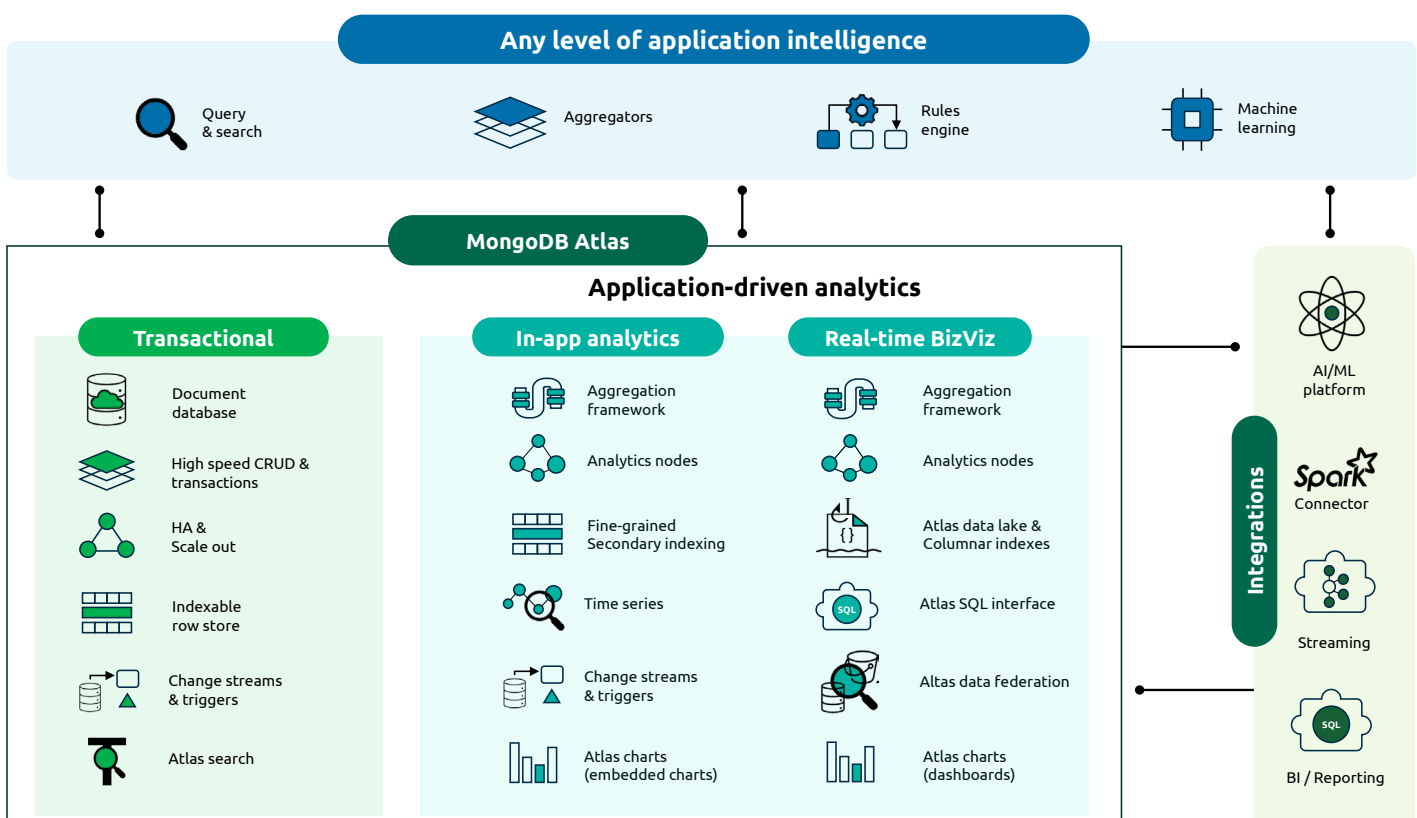


# A look At MongoDB Atlas and how it integrates with CAR systems

MongoDB's Atlas distinguishes itself in the marketplace with its exceptional vector search capabilities. It allows highly efficient search of a client's CAR system with natural language style syntax while providing insights that can be used in the feedback loop from in-house analytics into transactional documents including the CARs themselves. There's further simplicity gained from having a flexible document model or schema, as opposed to a rigid and hard to manage relational schema. The Atlas database offers the following key benefits:

- Eliminates the necessity for managing and maintaining an ETL (extract, transform, and load) pipeline.
- Streamlines operations by avoiding the management of multiple database environments or query languages and infrastructures.
- Integrates all analytics capabilities directly into the platform.
- Minimizes costs and eliminates the need for data duplication.

Figure 3. Use MongoDB Atlas to support your CAR and generate new customer opportunities



MongoDB Atlas helps bring analytical workloads closer to transactional workloads. It includes support for day-to-day production work as well as a host of features to support data and analytics transformation requirements. (Figure 3) Atlas complements rather than replaces OLAP and data warehouse (DWH) offerings, whether they are public, cloud-based, or on-premises. For analytics-driven decisions within your applications, Atlas

is the optimal solution. However, long-running queries that drive business decisions should still be preserved on existing DWH systems.

Overall, no other database offers the breadth of query functionality within a single, unified query experience. In fact, per a recent Retool: State of AI survey, MongoDB Atlas was the top-rated vector database in the marketplace today.<sup>4</sup>

# Accelerate your organization's Customer Analytic Record journey

The depth and value of data contained within a CAR is enormous. Business performance and future growth is at risk without optimizing its use, and doing so requires a scalable data management solution that works well with generative AI and other developing technologies.

Capgemini has deep experience in assisting clients with their data and analytics needs up and down the customer value chain across varying technology ecosystems. We know how to help banks and insurers reap the benefits of new technologies and use cases including those using AI and generative AI. We're proud to partner with MongoDB to leverage their MongoDB Atlas capabilities and extensive expertise to assist clients in unlocking optimal value from their customer data.

**Contact us to accelerate your organization's Customer Analytic Record**

## Endnotes

[1. Gartner Survey Finds Customer Data And Analytics as Top Priority for Achieving Customer Service and Support Goals in 2023.](#)

[2. Salesforce, "State of the Connected Customer" report.](#)

[3. Capgemini Research Institute, The New Face of Marketing.](#)

[4. Retool State of the Industry survey.](#)



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Please reach out with questions or to schedule a conversation about this paper's content and our capabilities to assist your organization.

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## About Capgemini

Capgemini is a global business and technology transformation partner, helping organizations to accelerate their dual transition to a digital and sustainable world, while creating tangible impact for enterprises and society. It is a responsible and diverse group of 340,000 team members in more than 50 countries. With its strong over 55-year heritage, Capgemini is trusted by its clients to unlock the value of technology to address the entire breadth of their business needs. It delivers end-to-end services and solutions leveraging strengths from strategy and design to engineering, all fueled by its market leading capabilities in AI, cloud and data, combined with its deep industry expertise and partner ecosystem. The Group reported 2023 global revenues of €22.5 billion.

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## About MongoDB

MongoDB is a multi-cloud developer platform. Designed to meet the demands of the GenAI era, our technology brings together data across systems and embedding models in any industry and the document data model, helping companies store data where they want it which they can use to run in any cloud, or even across multiple clouds to get the best from each provider with no lock-in. MongoDB —the general-purpose data platform for modern applications. Please visit [www.mongodb.com](http://www.mongodb.com)

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