Next-Gen Databases: RDBMS for On-Premises

On-premises deployments of relational databases offer steady innovation for building next-generation apps

2024 CONSTELLATION SHORTLIST

The Constellation ShortList™ presents vendors in different categories of the market relevant to early adopters. In addition, products included in this document meet the threshold criteria for this category as determined by Constellation Research. This Constellation ShortList of vendors for a market category is compiled through conversations with early adopter clients, independent analysis and briefings with vendors and partners.

ABOUT THIS SHORTLIST

Although there is a lot of talk about the use of public cloud, enterprise database loads have been sticky for on-premises deployments. With a major vendor announcing a key piece of ERP automation releasing on-premises in 2023 (with support until at least 2030), crucial applications will run on-premises for longer than expected. At the core of the critical systems are relational databases, which CxOs will now have to plan to run for at least another decade.

At the same time, solutions must run on a more global scale, and CxOs will try to consolidate similar or the same solutions across fewer database installations. Next-generation application needs will be addressed on-premises for reasons including data residency, compliance and performance. This list aims to help CxOs choose the right resources for their needs.

With AI being omnipresent in 2023, vendors in this Constellation ShortList had to react as well, practically almost all have offered vector DB support to their offerings. CxOs should look out in 2024 at mre AI induced capabilities will be offered by these vendors.

7 SOLUTIONS TO KNOW

Constellation evaluates over 20 solutions categorized in this market. This Constellation ShortList is determined by client inquiries, partner conversations, customer references, vendor selection projects, market share, and internal research.

- IBM DB2
- MICROSOFT SQL SERVER
- MONGODB
- ORACLE DATABASE
- SAP ASE
- SAP HANA
- TERADATA VANTAGE

LIKE WHAT YOU SEE?

Consider partnering with Constellation Research on your go-to-market-strategy. Email **ShortList@ContellationR.com** for more info.

To learn more about Constellation Research Shortlists visit: **www.constellationr.com/ShortList**

THRESHOLD CRITERIA

Constellation considers the following criteria for these solutions:

- Over 25K production installations of critical applications
- Customers in five or more continents
- Vendor directly present with sales and service in five or more continents
- Public cloud deployment option
- On-premises and public cloud-based deployments (by vendor and/or partner)
- New AI triggered capabilities

BUSINESS THEMES

Data to Decisions

New C-Suite

Technology Optimization

ABOUT CONSTELLATION RESEARCH

As an award-winning Silicon Valley-based strategic advisory and futurist analyst firm, Constellation Research serves leaders and organizations navigating the challenges of digital strategy, business-model disruption and digital transformation. Constellation works closely with solution providers, partners, C-suite executives, board of directors, and its Constellation Executive Network of buy-side leaders to lead the way in research coverage and advise clients how to achieve valuable business results.

FREQUENCY OF EVALUATION

Each Constellation ShortList is updated at least once per year. Updates may occur after six months if deemed necessary.

EVALUATION SERVICES

Constellation clients can work with the analyst and the research team to conduct a more thorough discussion of this ShortList. Constellation can also provide guidance in vendor selection and contract negotiation.

Holger Mueller
Vice President & Principal Analyst

Holger Mueller focuses on the synergies between people and software. As the hand-to-machine ratio radically changes over the next decade (primary factors: age dynamics and technology innovation), enterprises need to find the appropriate balance between changes in a dynamic workforce and the creation and adoption of next-generation applications, all determining the Future of Work and helping enterprises accelerate. Mueller provides strategy and counsel for key clients, including CTOs, CHROs and CIOs as well as investment analysts, VCs, PE firms and technology buyers.

Hybrid-Cloud and Multicloud Analytical Data Platforms

These leading analytical data platforms are available as software, for on-premises/private-cloud deployment, and as database-as-a-service offerings on multiple public clouds

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ABOUT THIS SHORTLIST

This ShortList focuses on analytical data platforms that can deliver the ultimate in query performance, even in high-scale deployments. These products also support high concurrency in terms of number of queries and numbers of users. Finally, these products also handle advanced SQL and data science workloads, including machine learning and artificial intelligence, through extended support for algorithms expressed in non-SQL languages, such as Python.

This ShortList presents Constellation's pick of analytical data platforms that are available both as software, for on-premises/private-cloud deployment, and as database services across multiple public clouds. This combination provides the best advantages of cloud computing while avoiding lock-in and fostering hybrid-deployment and cloud portability.

Yellowbrick was added to this ShortList on the strength of its consistent, Kubernetes-based cross-public-cloud/hybrid-cloud deployment capabilities. SAP Cloud Data Warehouse was removed from this ShortList as the vendor shifted its focus to its SAP Datasphere fabric offering.

4 SOLUTIONS TO KNOW

Constellation evaluates more than 20 products categorized in this market. This Constellation ShortList is determined by client inquiries, partner conversations, customer references, vendor selection projects, market share and internal research.

- **OPENTEXT VERTICA**
- **ORACLE DATABASE**
- **TERADATA VANTAGE/ VANTAGE CLOUD**
- **YELLOWBRICK**

LIKE WHAT YOU SEE?

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THRESHOLD CRITERIA

Constellation considers the following criteria for these solutions:

- Delivers state-of-the-art query performance, even in high-scale deployments scaling into the hundreds of terabytes
- Supports high concurrency, in terms of numbers of queries and numbers or users, with advanced query optimization and workload management features
- Offers advanced SQL functionality and extended support for data-science workloads expressed in non-SQL languages including Python
- Available as software for on-premises/private-cloud deployment and as a cloud service on multiple public clouds, harnessing containerization for deployment consistency
- Available as a cloud service on multiple major public clouds
- Database software provider supports its own cloud service, offering service guarantees and a single source for support

BUSINESS THEMES

🟢 **Technology Optimization**

🟣 **Data to Decisions**

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Doug Henschen
VP & Principal Analyst

Doug Henschen focuses on data-driven decision making. His Data-to-Decisions research examines how organizations employ data analysis to gain a deeper understanding of customers, partners, employees, and operations and to reimagine business models. His research acknowledges that innovative, data-driven applications require a multi-disciplinary approach, starting with integration and orchestration technologies, embracing next-generation data platforms, continuing through business intelligence and analytics, and applying cutting-edge machine learning and artificial intelligence techniques.