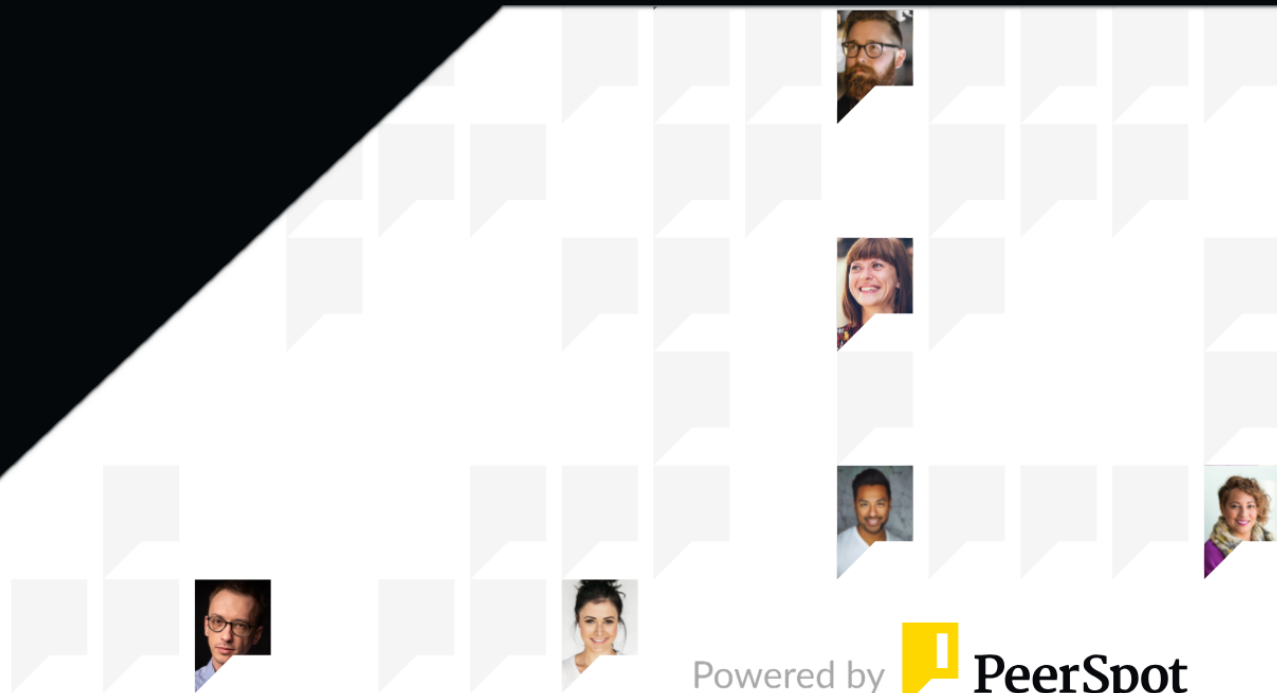


aws marketplace

CockroachDB

Reviews, tips, and advice from real users



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Contents

Product Recap..... 3 - 4

Valuable Features..... 5 - 10

Other Solutions Considered..... 11 - 12

ROI..... 13

Use Case..... 14 - 18

Setup..... 19 - 21

Customer Service and Support..... 22

Other Advice..... 23 - 24

Trends..... 25 - 26

About PeerSpot..... 27 - 28

Product Recap



CockroachDB

CockroachDB Recap

CockroachDB is a high-performance, cloud-native database offering fault-tolerance, geo-partitioning, and PostgreSQL compatibility, ensuring distributed transactions with robust security for global applications.

CockroachDB offers advanced features like geo-replication and ensures data residency through its distributed architecture. This minimizes application modifications by supporting the PostgreSQL wire protocol while providing enhanced fault-tolerance. High availability is maintained through automatic node syncing and workload distribution. Security is prioritized with SSL certificates and role-based access control, facilitating ease of use and observability through an intuitive interface. Despite its capabilities, areas like documentation, disaster recovery, and high availability are improving, with an emphasis on enhanced protocol support and serverless offerings.

What are CockroachDB's key features?

- **Geo-Partitioning:** Supports data residency and speeds up processing through regional distribution.
- **PostgreSQL Compatibility:** Minimizes app modifications with wire protocol support.
- **Distributed Architecture:** Offers automatic rebalancing, node syncing, and workload distribution.
- **Security Features:** Includes SSL certificates and role-based access control.
- **ACID Transactions:** Ensures transactional integrity across distributed systems.

What benefits should users expect?

- **Scalability:** Facilitates cloud-native scaling, simplifying operations.
- **Data Residency:** Offers compliance with regional data laws through geo-replication.
- **Cost Efficiency:** Reduces complexity, enhancing resource allocation.
- **High Availability:** Supports real-time processing for high-velocity applications.
- **Compatibility:** Ensures smooth integration with existing PostgreSQL setups.

CockroachDB finds application across industries such as fintech and media, where distributed transactions and high availability are critical. It's ideal for platforms requiring real-time data processing, like credit scoring and music streaming, thanks to its scalability, resilience, and top-tier security.

Valuable Features

Excerpts from real customer reviews on PeerSpot:

- ✓ “CockroachDB is excellent for managing relationships in RDBMS with multiple benefits such as the ability to create views and dynamic queries that save data and reduce the use of complex algorithms in code.”



Shivam Chauhan

Manager, Software Engineering at a tech vendor with 10,001+ employees

- ✓ “The subset of SQL that my client is using is completely supported.”



Antonio Tringali

Software Engineer at a consultancy with self employed

- ✓ “The most valuable feature is that CockroachDB is a distributed database, which can deploy nodes running in different regions.”



Dang Quy Tai

Student at Univerzita obrany

- ✓ “The most valuable features of the solution are its resiliency features and the geo-partitioning capabilities.”



Umang Singh

Senior Principal Architect ,Technology Strategy at Discover Financial Services

- ✓ “The best feature of CockroachDB is the ability to keep the nodes in different locations.”



Suresh Ayyavoo

Chief Information Officer (CIO) at a tech services company with 51-200 employees

- ✓ “The product has valuable security features.”



Arucy Lionel

Co-Founder at Afriziki

- ✓ “What I like best is its ability to solve data residency issues. The main advantage is auto geo partitioning, built into the product. This means we don't have to spin up separate servers in each region, which would be much more costly.”



SanjeevSingh4

Staff DBRE at SecurityScorecard

What users had to say about valuable features:

“The most valuable feature is that CockroachDB is a distributed database, which can deploy nodes running in different regions. Geo-replication capabilities are also important for production applications. Having database servers close to my customers, for example, in the US or UK, would improve performance..”

Dang Quy Tai

Student at Univerzita obrany

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“The distributed nature of CockroachDB helps us isolate the data when required. We also have some application logic that determines where the data must go. The best feature of CockroachDB is the ability to keep the nodes in different locations. It solves many problems..”

Suresh Ayyavoo

Chief Information Officer (CIO) at a tech services company with 51-200 employees

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“The main aspects that are valuable include:

- It is compatible with the wire protocol of PostgreSQL. All applications did not need to be modified. DBeaver and SquirrelSQL worked with the normal PostgreSQL JDBC drivers. Libraries for other languages (C++, Go) also worked.
- The subset of SQL that my client is using is completely supported.
- The Cockroach documentation is extensive.
- Cockroach University is a very good starting point to learn.
- The availability of the open source offer, no strings attached, allows a full evaluation of the product.

Antonio Tringali

Software Engineer at a consultancy with self employed

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“The product has valuable security features. It is easy to set up SSL certificates for communication between nodes. It has a user-friendly observability feature in terms of UI, helping us monitor login performance, identify slow queries, and view latency between the nodes. It is very adaptable, allowing us to tune specific details easily. It is based on a distributed architecture that determines and manages the number of nodes. It has an automatic rebalancing feature to manage the scenarios where nodes go offline and return online. It provides good performance if used for the right use case. Additionally, its compatibility with Postgres is a valuable feature as well..”

Arucy Lionel

Co-Founder at Afriziki

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“What I like best is its ability to solve data residency issues. The main advantage is auto geo partitioning, built into the product. This means we don't have to spin up separate servers in each region, which would be much more costly.

Performance-wise, it's great once you know how to use it properly. The key benefit is that data sits on the edge closest to the user, regardless of their location. This leads to improved speed.

However, there's a downside – if you don't understand how it works, your queries might run everywhere. You need to fine-tune your queries to avoid this issue..”

SanjeevSingh4

Staff DBRE at SecurityScorecard

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“CockroachDB is excellent for managing relationships in RDBMS. There are multiple benefits such as the ability to create views and dynamic queries that save data and reduce the use of complex algorithms in code. Instead of writing algorithms to get desired output, we can directly call the views where predefined algorithms form the view to get the desired output.

“CockroachDB's geo-distribution feature is superior to traditional databases. The admin UI can be used according to requirements. Compared to traditional databases PostgreSQL and MySQL, CockroachDB provides both SQL features and is horizontally scalable, meaning it is cloud-native. We can start with a single node and scale to hundreds of nodes across multiple regions. It automatically distributes data and workload without manual sharding.

“The database offers high availability and fault tolerance with data replicated across nodes and regions. It is compatible with various drivers and ORMs including Prisma, Sequelize, and Hibernate. It provides automatic migrations and online schema changes. Security features include encryption in transit, role-based access control, and compliance with data residency laws by pinning data to specific regions.

“CockroachDB supports ACID transactions and is cloud-native, allowing creation of hundreds of microservices with multiple regions. The automatic data and workload distribution eliminates the need for sharding, which is required in databases MongoDB..”

Shivam Chauhan

Manager, Software Engineering at a tech vendor with 10,001+ employees

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Other Solutions Considered

“I have evaluated TimescaleDB and Amazon RedShift. However, I chose CockroachDB as I had produced an experimental application some years ago using an older version and found it very easy to use..”

Antonio Tringali

Software Engineer at a consultancy with self employed

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“We were using MySQL. We had difficulties in isolating the data, so we switched to CockroachDB. CockroachDB is an open-source tool. The support is pretty good, and the support fee is much lower than the competitors. There were only three to four products in the market at that time..”

Suresh Ayyavoo

Chief Information Officer (CIO) at a tech services company with 51-200 employees

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“I used Google Spanner when Spanner first came out, I did enjoy it. However, Google Spanner can't be installed on a small scale. When you start off it cost seven dollars an hour. However, CockroachDB lets us do more than Google Spanner could. We are able to start small. If there's a transaction an hour running on CockroachDB at the moment, that's a lot..”

Hugh Sheehy

CEO at Go Eve

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“CockroachDB is a big data substitute for PostgreSQL.

I have used a number of databases in my professional activity, and every tool has its drawbacks. For example, for certain kinds of jobs, when you do not need relations among tables, Apache Cassandra is a better choice for big data..”

Antonio Tringali

Software Engineer at a consultancy with self employed

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ROI

Real user quotes about their ROI:

“The solution is worth its money if you use case fits. I've seen value and impact from this tool. Cost-wise, it's quite good compared to setting up a dedicated environment at each location. It leverages cloud providers like Google and AWS, using their servers, which makes it much cheaper. This makes it well worth it. .”

SanjeevSingh4

Staff DBRE at SecurityScorecard

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Use Case

“I use CockroachDB to test big data samples and to create the best structure for databases. We have four users and required 10 people for deployment and maintenance. .”

Mohammad Reza-Moradi

Master Student at a university with 11-50 employees

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“I am studying how to deploy CockroachDB and YugaByteDB, and learning some basic information about them. I am testing these databases as part of my school application to find a suitable database for our applications. Currently, I am using PostgreSQL, however, I want to try some distributed databases for testing purposes..”

Dang Quy Tai

Student at Univerzita obrany

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“We have a legal and compliance team. We have a compliance request that the personal data from the EU must stay in the EU, and the data from Singapore must stay in Singapore. CockroachDB is a distributed database system. It exactly fits our requirement to keep the data isolated. At the same time, we can have multiple instances globally. We cannot keep the nodes in different locations in a relational database like Oracle or MySQL..”

Suresh Ayyavoo

Chief Information Officer (CIO) at a tech services company with 51-200 employees

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“We use CockroachDB as the main database to handle the high-velocity data and ensure real-time processing for a music platform. It enables the processing of a large volume of credit scoring records online within a limited timeframe. It helps us distribute the workload among nodes and create a cluster to improve performance and scalability. It is useful for applications that don't require Postgres-specific features. Also, its compatibility with Postgres makes switching between the databases easier..”

Arucy Lionel

Co-Founder at Afriziki

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“Cockroach nodes were installed in the following:

1. Single host, triple nodes (containers): for evaluation on a low-end PC.
2. Single host, triple nodes (process): to test applications against a ~500GB database in-house.
3. Serverless: hosted in Google Cloud Platform (the main database).

A number of Python scripts and some Java applications are happily reading and writing to the database.

The solution allows for scaling in cases where a PostgreSQL server (unless you use sophisticated partitioning across some machines) would not be enough to handle the load. This kind of database is particularly used for backtests..”

Antonio Tringali

Software Engineer at a consultancy with self employed

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“We have been using CockroachDB for the last two years. From 2023, we started working on a product similar to Google Capture. We decided to work with CockroachDB with Hasura. Hasura is a UI for the database CockroachDB that provides a playground to work with the API and data. Since CockroachDB primarily supports SQL, we didn't want to use plain SQL in our programming, so we decided to go with ORM and selected Hasura. With Hasura, we sometimes require GraphQL. Besides using GraphQL, we have also used SQL with CockroachDB directly to get data and perform insert and update operations.

“Regarding our operations, CockroachDB equals PostgreSQL plus Google Spanner, and we can remove scalability, then add resilience across regions.

“For CockroachDB multi-active availability, all replicas of our data are active and can serve read and write simultaneously. Currently, we are not using these features because our database is not too large with only 20 customers using our application. MAA is a feature provided by CockroachDB, but they charge for this functionality. It has consequences by raft where each range of data is replicated with default three replicas. Writes go through raft consensus where a majority of replicas must agree, ensuring strong consistency even if some nodes or regions fail.

“Regarding multi-region or global clusters, it allows spanning clusters across multiple regions. We are configured with AWS because we use Lambda functions on the server end. The zone configuration lets you control where replicas live, such as keeping EU customer data in EU and US customer data in US, though we aren't currently using this feature.

“ACID transactions are not required in our application because we don't have any payment gateway currently. CockroachDB uses a two-phase commit protocol on top of raft consensus. If any part of the transaction fails, commits, times out, or node crashes, CockroachDB automatically rolls back.

“The benefits include being developer-friendly, strong security with RBAC, encryption, and data residency laws by pinning data to specific regions. It is self-healing because if a node crashes, data automatically rebalances to healthy nodes without manual failover, replication, or clustering needed. Finally, it offers cost

efficiency..”

Shivam Chauhan

Manager, Software Engineering at a tech vendor with 10,001+ employees

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Setup

The setup process involves configuring and preparing the product or service for use, which may include tasks such as installation, account creation, initial configuration, and troubleshooting any issues that may arise. Below you can find real user quotes about the setup process.

“The setup was very straightforward. Everything was mentioned in the documentation, and even a layman or business analyst can complete the setup without having technical knowledge..”

Shivam Chauhan

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Manager, Software Engineering at a tech vendor with 10,001+ employees

“The initial setup is simple and straightforward. The default out-of-the-box solution comes with the basic setup. We can set it up quickly. We need some technical knowledge for disaster recovery and backup restorations, but it is not that complex..”

Suresh Ayyavoo

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Chief Information Officer (CIO) at a tech services company with 51-200 employees

“The initial setup was quite easy for me. The process of security setting and certificate generation may be complicated. It requires experience and knowledge of using the Linux administration system..”

Arucy Lionel

Co-Founder at Afriziki

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“The initial setup of CockroachDB can be difficult initially if you are pushing on the operator line but then it becomes easy. Only one person is required for the maintenance of any project on CockroachDB..”

Victor AugustoDe Souza E Silva

Cloud Engineer at Leek Solucoes

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“We had to migrate from PostgreSQL. It was very complex. Depending on your current model, it can be complicated. But if everything is somewhat similar to what CockroachDB expects, then it's not too bad..”

SanjeevSingh4

Staff DBRE at SecurityScorecard

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“The product's initial setup phase was difficult since you need to follow certain standards set by CockroachDB. The product's initial setup process was cumbersome.

The solution is deployed on an on-premises model.

The time to deploy the solution varies depending on what you want to do..”

Umang Singh

Senior Principal Architect ,Technology Strategy at Discover Financial Services

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Customer Service and Support

I contacted technical support once regarding an error modifying field data types. I received a response within two to three hours, and the issue was resolved efficiently.

Shivam Chauhan

Manager, Software Engineering at a tech vendor with 10,001+ employees

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“The support team is not as responsive as we'd like. Their support is not as robust as that of some other providers. It's kind of hit or miss, depending on who you get to help you..”

SanjeevSingh4

Staff DBRE at SecurityScorecard

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“The technical support team is getting better. The support is pretty good. The team wants good customer feedback and takes the product to the next level. Initially, we had some issues getting support 24/7. Over time, the support has improved. I rate the technical support a seven or eight out of ten. We need to pay a little if we want enterprise-level support..”

Suresh Ayyavoo

Chief Information Officer (CIO) at a tech services company with 51-200 employees

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Other Advice

“At this point, I have not used this product enough to fully rate it on all of the features. In three or four months' time, I will have a better idea and understanding of it.

“I would rate this solution a six out of ten..”

Paresh Nayak

Oracle Cloud Infra Architect at Sterlite Technologies Ltd

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“It is a complex database under the hood. It scales using big data techniques, synchronizing among nodes using Raft and continually compacting.

The integrated web console makes it apparently easy to use. But be prepared to study and spend some quality time with Cockroach University and the documentation. This will be useful when performing optimizations on throughput.

Also, if you can distribute the load on multiple nodes (possibly more than three), you will gain in scalability. There are some little formulas that bind the replication factor to the number of nodes to use..”

Antonio Tringali

Software Engineer at a consultancy with self employed

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“There is a learning curve with this tool. People who are coming from traditional

databases and coders need to adjust. You have to know how to do distributed database calls. So, there's a learning curve for those who manage it and write code against it.

I would recommend [CockroachDB](#) to others, especially if they need an SQL database with solid transaction capabilities. For advice, understand each database's strengths and match them to your use case. There is a learning curve, so always try to learn what problems the database solves and how it fits your needs.

I rate the overall product an eight out of ten. .”

SanjeevSingh4

Staff DBRE at SecurityScorecard

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“We were interested in CockroachDB because a few of us had experienced it long ago with Postgres and that was one of the attractions. However, there are limitations to the exact compatibility. My advice to others is before you choose CockroachDB it would be good to check if it does everything you typically use in Postgres. Cross-check that it doesn't miss something you want or need or are very used to.

We used CockroachDB on a small scale and it's been great. Nominally it looks really good. Our fear is we'll scale it up and it won't scale. However, it is supposed to specifications are great. We've done spiky testing and it's never been a problem.

I rate CockroachDB an eight out of ten..”

Hugh Sheehy

CEO at Go Eve

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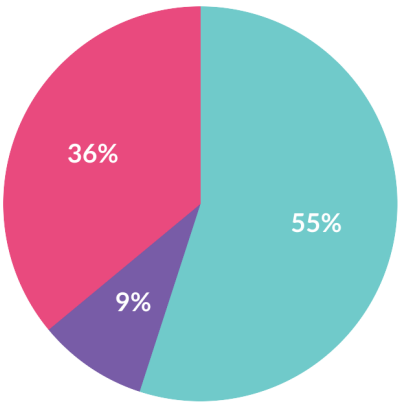
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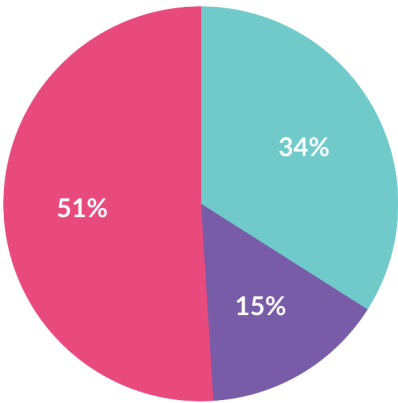


Company Size

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 Large Enterprise  Midsize Enterprise  Small Business

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