MongoDB 4.2 Adds Distributed Transactions, Field Level Encryption, Updated Kubernetes Operator and More to the Leading, Modern, General Purpose Database

June 18, 2019

NEW YORK, June 18, 2019 /PRNewswire/ -- MongoDB, Inc. (NASDAQ: MDB), the leading, modern, general purpose data platform, today announced the latest version of its core database, MongoDB 4.2. Key features such as distributed transactions, field level encryption and an updated Kubernetes Operator raise MongoDB's established reputation for supporting a wide variety of use cases for thousands of customers, which range from innovative cloud-native startups to the largest global enterprises.

Distributed transactions, which extend multi-document ACID guarantees from replica sets to sharded clusters, give customers an easier way to address a complete range of use cases by enforcing transactional guarantees across highly scaled, global applications. Field Level Encryption enables users to have encrypted fields on the server—stored in-memory, in system logs, at-rest and in backups—which are rendered as ciphertext, making them unreadable to any party who does not have client access or the keys necessary to decrypt the data. The Kubernetes control plane allows users to have full management over their MongoDB deployment for a consistent experience anywhere, including on-premises infrastructure, private and hybrid cloud, or public cloud.

"When we founded MongoDB, we wanted to give developers an easier way to work with data - wherever it lived in the stack," said Eliot Horowitz, CTO and co-founder, MongoDB. "To be able to provide great new features that will make them more productive so they can spend less time wrestling with data and more time building great applications is extremely gratifying. Most importantly, these features work and feel like the tools they are already used to so they will experience a vastly improved database experience with a short learning curve."

Distributed Transactions

MongoDB introduced multi-document ACID transactions in the release of MongoDB 4.0, providing a consistent view of data across replica sets and enforcing all-or-nothing execution to maintain data integrity. Combined with the power of the document model and its distributed systems architecture, developers can easily modernize existing legacy apps and build new transactional services. Distributed Transactions maintain an identical syntax to the transactions introduced in MongoDB 4.0. They are multi-statement and enforce snapshot isolation, making them familiar to any developer with prior transaction experience. The API and implementation is consistent whether executing transactions across documents, collections and databases in a replica set, or across a sharded cluster. Full atomicity is maintained – if a transaction fails to commit on one shard, it will abort on all participant shards.

The Next Level in Enterprise-Grade Security

MongoDB 4.2's implementation of Field Level Encryption is a different and more comprehensive approach than column encryption used in legacy, relational databases. It is totally separated from the database, transparent to the server and handled exclusively within the MongoDB drivers on the client. Most databases handle encryption on the server-side, which means data is still accessible to administrators who have access to the database instance itself, even if they have no client access privileges. Field Level Encryption changes that.

Advantages of MongoDB Field Level Encryption include:

- **Automatic, transparent encryption:** Application code can run unmodified for most database read and write operations. Other client-side approaches require developers to modify their query code to use the explicit encryption functions and methods in a language SDK.
- **Separation of duties:** System administrators who traditionally have access to operating systems, the database server, logs, and backups cannot read encrypted data unless explicitly given client access along with the keys necessary to decrypt the data.
- **Regulatory Compliance**: Facilitate compliance with "right to be forgotten" requests in privacy regulations such as GDPR – simply destroy the customer key and the associated personal data is rendered useless.

"We partnered with two of the world's leading authorities on database cryptography, including a co-author of the IETF Network Working Group Draft on Authenticated AES encryption, to develop Field Level Encryption," said Lena Smart, CISO, MongoDB. "Drawn from academia and industry, these teams have provided expert guidance on MongoDB's Field Level Encryption design and reviewed the Field Level Encryption software implementation."

Full control from a single Kubernetes plane

Users can now manage their MongoDB deployment from a single Kubernetes control plane. On self-managed infrastructure – whether on-premises or in the cloud – Kubernetes users can use the MongoDB Enterprise Operator for Kubernetes and MongoDB Ops Manager to automate and manage MongoDB clusters. Developers can use the operator with upstream Kubernetes, or with popular distributions such as Red Hat OpenShift and Pivotal Container Service (PKS).

Further Resources:

- MongoDB World Live Blog
- Learn more about MongoDB World Announcements
- More news from MongoDB World:
  - New Product Announcements Expand MongoDB's Data Leadership Beyond the Database
  - MongoDB Unveils Vision for the Development Platform Realm

About MongoDB

MongoDB is the leading modern, general purpose data platform, designed to unleash the power of software and data for developers and the applications they build. Headquartered in New York, MongoDB has more than 14,200 customers in over 100 countries. The MongoDB database platform has been downloaded over 70 million times and there have been more than one million MongoDB University registrations.

Forward-Looking Statements

This press release includes certain "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, including statements concerning the anticipated benefits of new product features. These forward-looking statements include, but are not limited to, plans, objectives, expectations and intentions and other statements contained in this press release that are not historical facts and statements identified by words such as "anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "may," "plan," "project," "will," "would" or the negative or plural of these words or similar expressions or variations. These forward-looking statements reflect our current views about our plans, intentions, expectations, strategies and prospects, which are based on the information currently available to us and on assumptions we have made. Although we believe that our plans, intentions, expectations, strategies and prospects as reflected in or suggested by those forward-looking statements are reasonable, we can give no assurance that the plans, intentions, expectations or strategies will be attained or achieved. Furthermore, actual results may differ materially from those described in the forward-looking statements and are subject to a variety of assumptions, uncertainties, risks and factors that are beyond our control including, without limitation: our limited operating history; our history of losses; failure of our database platform to satisfy customer demands; the effects of increased competition; our investments in new products and our ability to introduce new features, services or enhancements; our ability to effectively expand our sales and marketing organization; our ability to continue to build and maintain credibility with the developer community; our ability to add new customers or increase sales to our existing customers; our ability to maintain, protect, enforce and enhance our intellectual property; the growth and expansion of the market for database products and our ability to penetrate that market; our ability to maintain the security of our software and adequately address privacy concerns; our ability to manage our growth effectively and successfully recruit and retain highly-qualified personnel; the price volatility of our common stock; and those risks detailed from time-to-time under the caption "Risk Factors" and elsewhere in our Securities and Exchange Commission filings and reports, including our Annual Report on Form 10-K filed on April 1, 2019 and our Quarterly Report on Form 10-Q filed on June 7, 2019, as well as future filings and reports by us. Except as required by law, we undertake no duty or obligation to update any forward-looking statements contained in this release as a result of new information, future events, changes in expectations or otherwise.

Investor Relations
Brian Denyeau
ICR for MongoDB
646-277-1251
ir@mongodb.com

Media Relations
Mark Wheeler
MongoDB
866-237-8815 x7186
communications@mongodb.com

View original content to download multimedia:http://www.prnewswire.com/news-releases/mongodb-4-2-adds-distributed-transactions-field-level-encryption-updated-kubernetes-operator-and-more-to-the-leading-modern-general-purpose-database-300870262.html

SOURCE MongoDB, Inc.