



Brent Leech, public sector regional director for MongoDB, discusses how an intelligent operational data platform helps government organizations address the challenges of big data.

What keeps state and local governments from taking greater advantage of big data?

They can't distill the vast amounts of data they collect into actionable and mission-focused programs and projects. When you have a data lake project and the data pouring in is unstructured and poorly organized, what do you do with it? Organizations need an operational layer so they can pull data germane to their mission out of that swamp and perform whatever actions they need to on that data.

What type of data platform should organizations adopt to take advantage of data?

Most organizations that embark on a big data strategy don't realize how much they'll struggle with unstructured data in their data lake. Unstructured data does not fit into traditional schemas, which look like Excel spreadsheets. If you use a traditional relational database management system, you'll struggle with rows, columns and pages when you actually need to fit data into something that looks more like a Word document. The platform has to support document after document with the flexibility to modify the schema and store unanticipated data types in unanticipated ways because things change so quickly.

Why is open source important for processing big data? First, there is a low barrier of entry from a cost perspective, and it's easy to get the technology up and

running. Second, a vast number of people are familiar with open source platforms, so the talent pool is much larger. Finally, a lot of the simple problems associated with big data have already been solved by the open source community. You don't need to reinvent the wheel, so it moves you down the road farther, faster and you don't waste time and resources.

How does an operational data platform support modern application development?

Developers and analysts work in an object-oriented world. With the NoSQL document model, they're far more productive because they're working with data in a natural way and they can make quick and easy modifications to an application. They don't have to do any translation between the application and the database. In addition, the platform allows you to put data where you want it; for example, if you need to have data out at the edge because of geographical latency issues. Finally, it gives you the freedom to run anywhere. If your organization wants to run in Amazon Web Services but then move to Google Cloud Platform and then to Microsoft Azure to save money, you can have a multicloud strategy. You can run things on premises or on your smartphone. It gives you that flexibility.

Lost in a sea of unstructured information?

The data you're looking for won't fit neatly into a spreadsheet, but making it actionable will improve program success and productivity. You need a secure and flexible data platform that's built for scale, and designed for developer ease.

You need MongoDB.

