



Snapshot

Technology:
Apache Cassandra
on AWS

Sector:
Industrial Applications

Use case:
Internet of Things

Case Study



BlackBerry is a leading global enterprise software and services company.

Overview

BlackBerry has deployed open source Apache Cassandra as the NoSQL database solution for its BlackBerry Internet of Things (IoT) platform.

The BlackBerry IoT platform powers the BlackBerry Radar IoT solution designed to provide continuous visibility into an organization's transportation fleet. A tracking device attached to the asset provides near real-time data to the central event processing and analytics engine that provides valuable information for trailer, chassis and container management of a transportation fleet.

“*Instaclustr has played an important behind-the-scenes role in the deployment and operations of the BlackBerry IoT platform. We have relied on Instaclustr's expertise in managing the operational aspects of our Apache Cassandra NoSQL database environment. Instaclustr's focus on maintaining a stable data layer for us has enabled our team to concentrate on delivering a great IoT platform and solution for our customers.*”

Conrad Seaman
Senior Business Operations Manager, BlackBerry

Challenge

BlackBerry wanted to develop a core IoT platform that was reliable, secure and scalable to address multiple industry specific applications and solutions.

From the start the BlackBerry engineering team set out to build a cutting edge IoT platform that maintained three core design principles:

- **Security.** With an already rock solid reputation for security, BlackBerry needed to uphold these expectations for their customers IoT devices connected to the Internet can be hacked. Furthermore, the data sent from the devices needed to be kept private for confidentiality. BlackBerry had to build a solution where data could be transmitted securely and held privately
- **Scalability.** The platform had to be scalable to accommodate the information flow from a growing deployment of the tracking devices and sensors. The data had to be stored and be readily available for searches and analytics.
- **Reliability.** Finally, the customer data had to be stored with over 6 nines of reliability for long periods of time. This data would also need to be ported to customers as needed. What was equally important was availability of data with low latency.

Solution

Apache Cassandra managed and supported by Instacluster delivered the scale, performance and security required by BlackBerry to deliver the core requirements and capabilities of the BlackBerry IoT platform.

Handling the platform's data intake and application scaling requirements has proven to be instrumental to BlackBerry innovating and strengthening their product to deliver a far more effective IoT platform for their customers.

The Instacluster managed solution for Apache Cassandra has provided the stable operational environment required for the BlackBerry engineering team to be able to focus primarily on developing additional capabilities and features to integrate effectively into the IoT Platform.

BlackBerry has relied on the expertise and continued support of the Instacluster support team to ensure that the database and associated technologies operate effectively and as efficiently as possible.