

How to Support Data Democratization from the Edge to AI

What it takes to build a comprehensive data management and analytics infrastructure

WHITE PAPER

As more and more enterprises seek to unlock the power of their data, these organizations must first bring order to data chaos. Organizations need a way to really empower their entire enterprise user base to tap into the full breadth of data scattered across the business. They need an efficient and flexible data management and analytics solution, one that doesn't just serve data scientists, but also business analysts, line of business users and leadership, IT and C-suite executives. At the same time, they need a way to govern data for quality, accuracy and security, while increasing the time value of data.

And they've got to do it all without breaking the bank. Here's how leading organizations are building their management and analytics infrastructure to serve these needs and meet the goal of democratizing data across the enterprise.

The Data Power Vacuum

According to recent statistics, some two out of three large organizations admit that they've been unable to build a data-driven culture at their organization.¹ Some of the biggest challenges that impede the development of a data culture are all about speed. IT has traditionally struggled to keep up with the demand of the business and data scientists to provide the data management and analytics support they need to get the most out of data insights when they need it most. According to a recent TDWI study, half of all organizations are unable to get actionable results for a new analytics request within 60 days. Approximately 20% say it takes four months or longer to develop, test and deploy new analytics capabilities for the business.²

“Too often, organizations are mired in chaotic, inconsistent, and often redundant work in projects for developing BI, analytics, applications and AI. This can result in delays, inefficient use of data and processing resources, and dissatisfaction among users, who need capabilities as soon as possible,” write TDWI analysts.

As a result of traditional waterfall approaches to data management and development, a classic scenario occurs where IT takes so long to respond to a change request that the business unit scoffs when IT finally delivers, since that capability is now too stale to offer them any value. They'll tell IT “that's last year's problem, I need help with this year's problem right now.”

As a market, data analytics has worked hard to provide solutions that are easier to use, easier to deploy and more realistically within the grasp of an average business user rather than just data scientists or veteran business intelligence analysts. But enterprise IT often hasn't kept up with the data infrastructure to support those improvements. So, as the analytics options have progressed many individual business units have gone “rogue,” seeking ad hoc, shadow IT solutions for self-service analytics. That's good for democratizing data and empowering users, but this shotgun approach lacks the controls needed to prevent confusion. Consequently, it doesn't scale well in the enterprise.

As a result, organizations are battling the chaos of shadow IT and shadow data that's manifested by a lack of governance, lack of

efficiency, lack of data quality, lack of system performance and lack of security—and accompanied by unexpected cost overruns.

This is why enterprises need a framework that can empower users with self-service capabilities, while still maintaining the kind of governance that can ensure data quality and availability, as well as security and compliance. This doesn't happen by accident—it must be intentionally planned for and well-orchestrated.

What a data democratization framework needs

To offer the kind of self-service options that support a data-driven culture, organizations need their data management and analytics framework to give them all of the key data, analytic and AI functionality they need in a unified, secure environment. Ideally, the framework should offer:

- The ability for changes in analytics functionality to be easily configurable versus needing additional development and programming on the back end
- Flexibility, breadth and speed of capture in data sources
- No vendor lock-in, ever
- Support for all types of cloud deployment models, because different organizations have different cloud migration strategies
- Easy integration
- Support for an extensive range of analytics functions
- Flexible UI

Ultimately, leaders in data democratization find that their framework can be used to build out an enterprise data cloud. Enterprise data clouds tend to have the following four traits:

Hybrid and multi-cloud: operates with equivalent functionality on- and off-premises, supporting all major public clouds as well as the private cloud

Multi-function: addresses all data and analytic challenges from the edge to AI in a streamlined and unified fashion

Secure and governed: meets strict data privacy, governance and data management demands of a large, regulated enterprise

Open: supports open source software, open compute architectures, open data stores, open integration and open ecosystems to maintain data control at all times

¹ “Big Data and AI Executive Survey 2019,” NewWantage Partners, January 2019.

² “Best Practices Report: Faster Insights from Faster Data,” TDWI, December 2019.



Working in concert, the Cloudera and Qlik partnership offers unique integrations from the edge to AI.

Why A Commercial Integrated Platform Approach Is Crucial

Cobbling an enterprise data cloud together as a DIY project may seem attractive at first. But to build in the amount of flexibility and responsiveness to the business and maintain that at scale tends to send the costs of DIY into the atmosphere. It's simply too difficult for enterprises with constrained resources to reliably pull it off. At the same time, enterprises can't afford to get locked into monolithic vendor ecosystems for the sake of convenience.

Instead, they should seek out data management and analytics vendors who operate open platforms with lots of certified integration points that can offer the best of both worlds. Ideally, these integrations should provide simple, out-of-the-box governance and standardization, along with customizability and data ownership that are the hallmark of a functional enterprise data cloud.

Benefits of Cloudera and Qlik

Working in concert, the Cloudera and Qlik partnership offers unique integrations from the edge to AI. Together, Cloudera and Qlik simplify data and accelerate the time to value of the organization's data, especially utilizing analytics "from the edge to AI." The integration afforded by this partnership helps organizations build out a true enterprise data cloud that offers:

- Support for both hybrid cloud and multi-cloud environments

- Deep, multi-function analytics
- Enterprise-class security and data governance
- A flexible, completely open platform
- Qlik Replicate and Qlik Compose help bring data into Cloudera and model it (CDF, CSP and Hive integrations)
- Qlik Data Catalyst helps organize and identify key datasets (SDX Integration)
- Qlik Sense allows rapid data analytics on the Cloudera platform (Hive, Impala & CDSW Integrations)

The framework provided by these partnerships is already powering impressive business results at leading organizations, including:

TD Bank

This \$30B bank leverages Qlik and Cloudera to make its data lake more useable and speed up time to insight for analysts looking for ways to run the business better, engage with customers and identify new business opportunities. In the process, TD Bank has cut its IT costs related to data preparation by 40%.

Tokyo Century (USA) Inc.

Utilizing Qlik and Cloudera powered by the Bardess Group's Zero2Hero stack, this financial services firm is developing a consistent and systematic approach to data analytics that is giving its credit risk analysts better tools for assessing risk. The improvements are expected to help the company reduce risk assessments from one hour down to 10 minutes.

To learn more:

Watch a webinar: <https://www.cloudera.com/content/dam/www/marketing/resources/webinars/get-an-exclusive-first-look-at-cloudera-data-platform.png.landing.html>

Demo the joint product: cloudera.qlik.com

Visit the Cloudera and Qlik web page:
<https://www.cloudera.com/partners/solutions/qlik.html>

Visit: https://cloudera.qlik.com/docs_events.html
for Qlik + Cloudera documentation and whitepapers

© 2020 Cloudera, Inc and QlikTech International AB.

This content was commissioned by Cloudera, Inc and QlikTech International AB and produced by TechTarget Inc.

Cloudera and associated marks are trademarks or registered trademarks of Cloudera, Inc. All other company and product names may be trademarks of their respective owners.

Gartner Disclaimer

Gartner does not endorse any vendor, product or service depicted in its research publications and does not advise technology users to select only those vendors with the highest ratings or other designation. Gartner research publications consist of the opinions of Gartner's research organization and should not be construed as statements of fact. Gartner disclaims all warranties, expressed or implied, with respect to this research, including any warranties of merchantability or fitness for a particular purpose.

© 2018 QlikTech International AB. All rights reserved. Qlik®, Qlik Sense®, QlikView®, QlikTech®, Qlik Cloud®, Qlik DataMarket®, Qlik Analytics Platform®, Qlik NPrinting®, Qlik Connectors®, Qlik GeoAnalytics®, Qlik Core®, Associative Difference®, Lead with Data™, Qlik Data Catalyst™, Qlik Associative Big Data Index™ and the QlikTech logos are trademarks of QlikTech International AB that have been registered in one or more countries. Other marks and logos mentioned herein are trademarks or registered trademarks of their respective owners.

CLOUDERA

At Cloudera, we believe that data can make what is impossible today, possible tomorrow. We empower people to transform complex data into clear and actionable insights. Cloudera delivers an enterprise data cloud for any data, anywhere, from the edge to AI. Powered by the relentless innovation of the open source community, Cloudera advances digital transformation for the world's largest enterprises. Learn more at [Cloudera.com](https://cloudera.com).

Qlik

Qlik provides an end-to-end, real-time data integration and analytics solution that help organizations access, visualize and transform all their data into value. Qlik thrives in complex data environments and serves over 50,000 customers around the world – helping them to connect the dots in order to see more deeply into customer behavior, reinvent business processes, discover new revenue streams, and balance risk and reward. Qlik is regularly rated by analyst firm Gartner as one of the top business intelligence (BI) vendors in the market, along with Tableau and Microsoft BI.