

# DATA SHARING

## ENHANCING EFFICIENCY

**The Context** : In today's fast-evolving industrial landscape, the importance of sharing data within an organization cannot be overstated, particularly in fields such as industrial reliability and vibration condition monitoring. Efficient data sharing not only facilitates enhanced operational visibility but also significantly improves decision-making capabilities. Organizations that fail to integrate effective data-sharing systems are at a severe disadvantage, risking not only operational efficiency but also long-term sustainability. In an era where precision and reliability are paramount, the absence of a robust data communication framework can be a critical pitfall.

In the context of Reliability 4.0, data interaction across different layers of a Condition Monitoring (CM) program is crucial. From data collection and analysis to management, each layer depends on seamless integration to function optimally.

Bottlenecks in these processes can drastically hinder an organization's ability to address issues promptly as they arise.

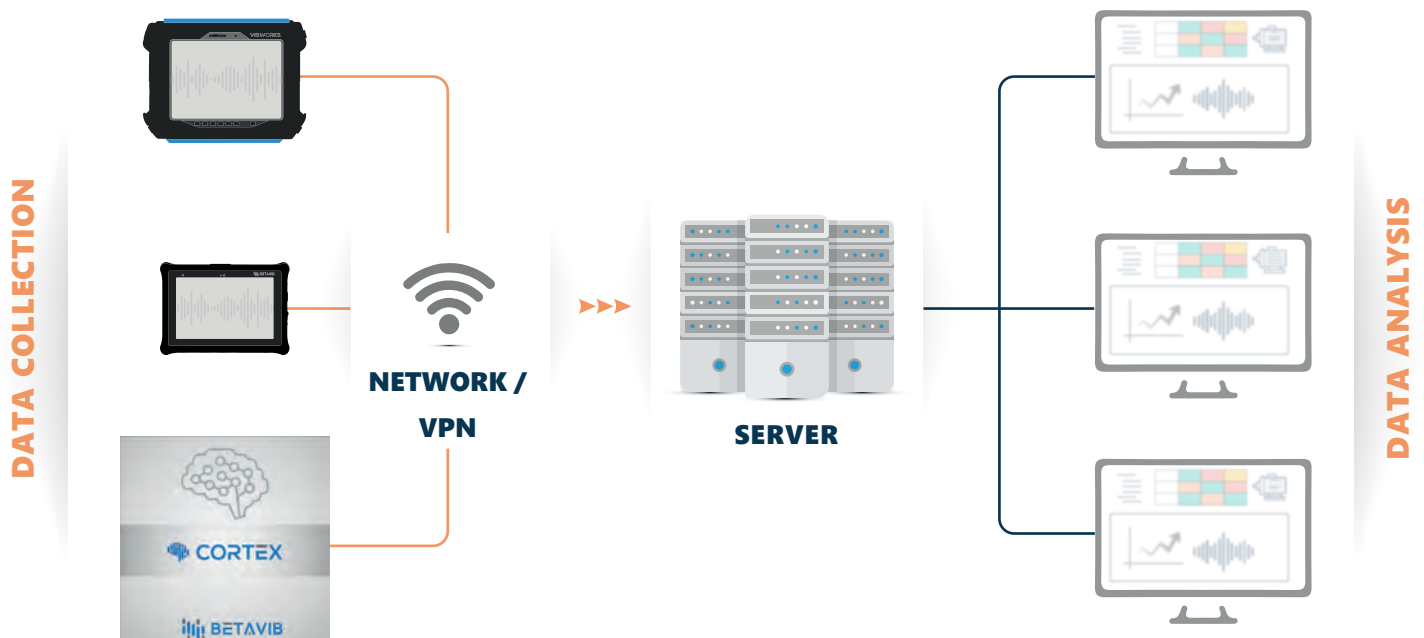
Efficient data flow across these layers ensures that issues can be identified and rectified swiftly, thereby enhancing overall operational efficacy and reducing downtime.

The challenge of maintaining knowledge continuity became a real issue after the retirement wave of experienced personnel who often depart with critical operational insights and historical data. This loss, compounded by staff turnover, outdated technology, and inadequate data management practices, directly leads to reduced maintenance efficiency, compromised decision-making, and escalated costs. Each of these factors underscores the necessity for a sophisticated data-sharing system that not only preserves but also effectively disseminates knowledge within the organization.

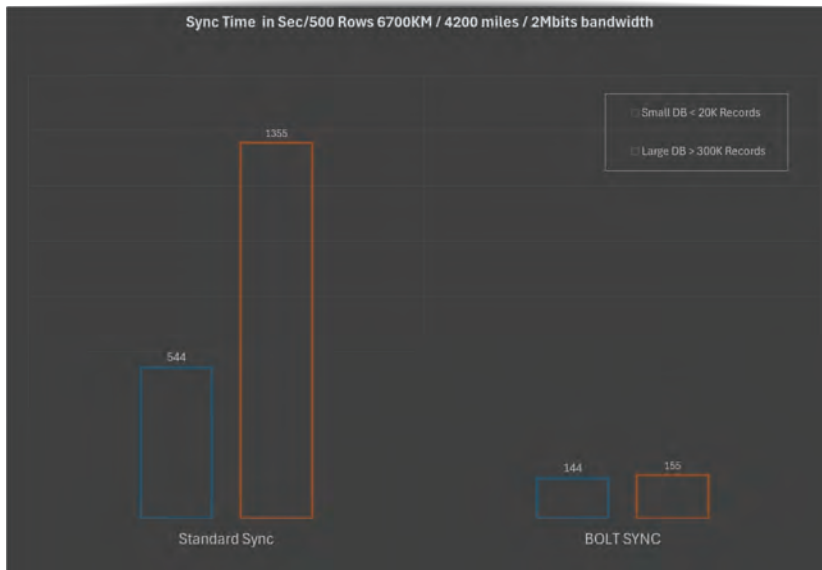
To address these challenges, it is imperative to implement an efficient data management system that provides direct and real-time access to data across the organization.

**Such a system should be adaptable, catering to the specific needs of different user levels** : analysts require unrestricted access to detailed signal processing tools, fault frequencies, and robust reporting capabilities in both read and write modes. Conversely, CM managers need a more aggregated view, focusing on holistic asset performance and KPIs to analyze failure distributions across the entire plant rather than isolated incidents.

Implementing a dynamic and responsive data management system is more than an operational upgrade; it is a strategic investment that can redefine the way an organization harnesses its information. By ensuring data is accessible and tailored to the needs of each operational tier, companies can not only enhance their immediate response to issues but also pave the way for long-term strategic planning and continuous improvement. This approach not only mitigates the risk associated with data silos and knowledge loss but also positions the organization to thrive in a competitive industrial environment.



# BOLT SYNC



BoltSync BETAVIB server architecture is the solution to address these challenges, it's a cross platform solution, handling data from VibWorks, LT and Cortex.

BETAVIB's server architecture represents a cutting-edge solution designed to address the complex challenges of data management in industrial reliability and vibration condition monitoring.

As a cross-platform system, it seamlessly integrates data from VibWorks, LT, and Cortex, offering a unified approach to handling diverse data streams.

This robust architecture not only enhances data accessibility across different organizational layers but also ensures real-time data processing and analysis.

By centralizing data interactions, BETAVIB's server solution empowers organizations to optimize their maintenance strategies, improve decision-making, and achieve a holistic overview of asset health.

Whether you are dealing with routine monitoring or complex diagnostics, BETAVIB's server architecture provides the reliability, scalability, and flexibility needed to drive operational excellence and advance technological capabilities in any industrial setting.

**DEVELOPMENT CONTEXT:** Bolt Sync is our latest advancement, a unique and innovative solution designed to facilitate bidirectional synchronization between your VibWorks and VibWorks LT collectors and a centralized database. This new solution builds upon the strengths of our existing server architecture, which includes several notable features such as robust data encryption, the capability for multiple collectors to communicate seamlessly, and the proficient management of both databases and vibration data.

The previous iteration of our synchronization tool was effective within local networks and performed extremely well on-site. However, it encountered limitations when data needed to be transferred over long distances, particularly when passing through VPNs, which impacted performance significantly. To address these issues, we developed Bolt Sync with a focus on optimizing the architecture to enhance performance significantly, regardless of the geographical data travel distances.

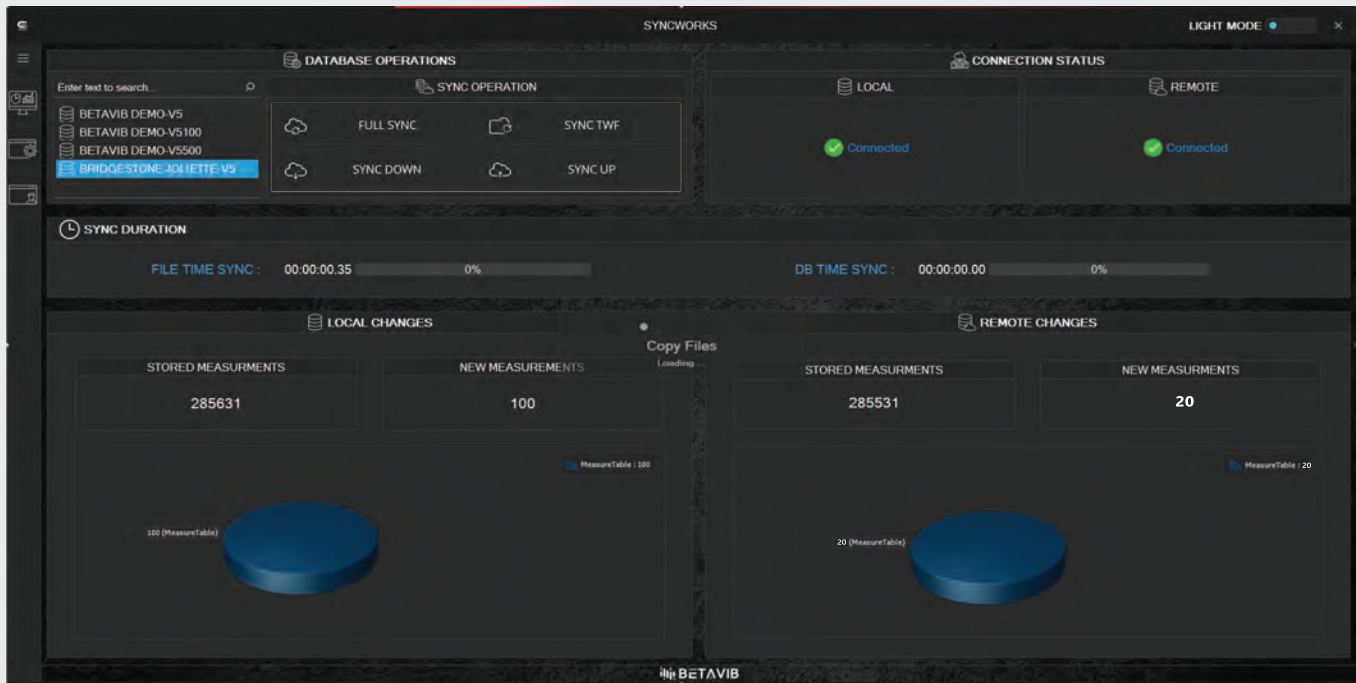
**THE ANSWER:** Bolt Sync was engineered with the specific aim of overcoming the performance bottlenecks observed in the previous versions and related mainly due to restrictions imposed by Internet Service Providers and SQL native architecture. Bolt sync offers amazing performances even while synchronizing data across Continents. This makes Bolt Sync not only a tool for local data management but also a solution for National and International enterprises seeking to maintain high data integrity and accessibility across vast distances.

**SIMPLE, POWERFUL AND EFFICIENT : 2 CLICKS Operation:** BoltSync embodies simplicity, power, and efficiency, distilling complex synchronization processes down to a mere two clicks.

Despite addressing sophisticated technological challenges, BoltSync maintains an exceptionally user-friendly interface. Users begin by selecting a database from among the various local databases on their collector.

**100% transparent deployment :** BETAVIB's server architecture is designed to integrate seamlessly and transparently into your existing IT infrastructure.

It allows for implementation within your network using your own credentials, ensuring that it aligns perfectly with your organization's established security policies. This approach minimizes the learning curve for your IT team and eliminates the need for extensive reconfiguration, making it a straightforward addition to your technological environment



### USERS ARE PRESENTED WITH SEVERAL SYNCHRONIZATION METHODS TO CHOOSE FROM:



**Full Sync :** This method synchronizes data fully in both directions, from the instrument to the server and vice versa.



**Sync Up :** This option syncs data only from the instrument to the server, ideal for users looking to upload their data.



**Sync Down :** Select this to only retrieve data from the server to the instrument, useful for downloading new routes, machine details, or analyst notes.



**File Sync :** This syncs only vibration data, allowing it to be post-processed by an analyst on the server

This is particularly valuable when analysts prefer to apply specific analytical techniques that differ from those used on the local machine. The entire operation is designed to be straightforward: a two-click process on an instrument equipped with built-in WiFi.

Moreover, BoltSync offers the flexibility to use your phone's data plan for syncing data directly from the instrument while on the move, ensuring maximum autonomy without the need to return to your office. BoltSync is engineered to deliver top performance in any situation, ensuring that data synchronization is seamless and effective no matter where you are.

# DATA HOSTING

In many scenarios, especially for several of our clients, implementing a comprehensive global data management strategy is often outsourced for various compelling reasons.

These reasons include adhering to strict security policies, reducing IT costs, ensuring reliable data backup, and minimizing expenses related to server procurement and ongoing maintenance. In response to these needs, BETAVIB provides a fully managed, turnkey solution that encompasses the entire spectrum of services—configuration, setup, and operations—managed entirely by BETAVIB with no IT burden placed on the customer.

End users simply collect data and synchronize it directly with BETAVIB servers.

They are granted DIRECT access to our powerful analysis workstation UHDM, hosted on the server.

This arrangement not only ensures that both the analysis software and data operate on the server for optimal performance and minimal loading times but also facilitates immediate access to data locally stored on the server.

Furthermore, our service guarantees seamless and transparent updates.

We handle all necessary updates on the server, ensuring that end users always have access to the latest version of our advanced analysis tools.

This includes the newest signal processing techniques, features to detect subtle changes in dynamic behavior, and the latest AI libraries designed to enhance data analysis capabilities.

The popularity of data hosting services continues to grow in the Reliability 4.0 era, supported by secure and proven protocols that ensure data safety and recoverability at any moment.

Our service is fully compatible with all BETAVIB products, ranging from VibWorks (Knight, Rook, or King) to VibWorks LT and even Cortex.

This holistic approach ensures that regardless of the specific tools used, all data is integrated and managed effectively, providing a streamlined, efficient, and powerful data management and analysis solution.

