Liquibase

Liquibase vs. Bytebase:

- A side-by-side comparison for database and data warehouse change management

Liquibase vs. Bytebase

Database DevOps integrates database changes into the application development and deployment pipeline, fostering collaboration between development, operations, and database teams. It leverages automation and continuous practices to streamline database deployments, reduce errors, and ensure consistency across environments.

Liquibase and Bytebase offer open source and premium tools to manage database schema changes and both provide quality products but they differ in their approach and scope. For this guide, we will focus on the commercial solutions. Liquibase Secure offers the features and capabilities necessary to apply DevOps patterns and practices to database change workflows. Bytebase offers a web-based graphical user interface (GUI) to provide a workspace for developers and DBAs to manage the database development lifecycle.

When comparing database devops solutions, it's easy to get confused. This guide offers a comprehensive look at the two technologies, drawing comparisons and highlighting differences.

Liquibase Secure: The Missing Piece in Your Modern Delivery Stack



Vast Database Support

Works across cloud-native and legacy platforms with 70+ supported databases, including Snowflake, MongoDB, SQL Server, Oracle, and more.



Secure, Automated Change Management

Secure every change with built-in authentication, secrets integration, drift detection, and rollback, no manual handoffs required.



Flexible, Scalable Adoption

Integrates with your CI/CD, ticketing systems, and workflows to scale database change across teams, pipelines, and environments.



Customizable Policy Controls

Fully configurable guardrails let you define who can make changes, when, and how enforcing security and compliance without slowing developers down.



Insights into Database Change Operations

Track change history, drift, and performance across environments with structured logs, integrated reporting, and audit-ready visibility.



Trusted at Enterprise Scale

15+ years of experience helping global enterprises automate and govern database change across thousands of applications.

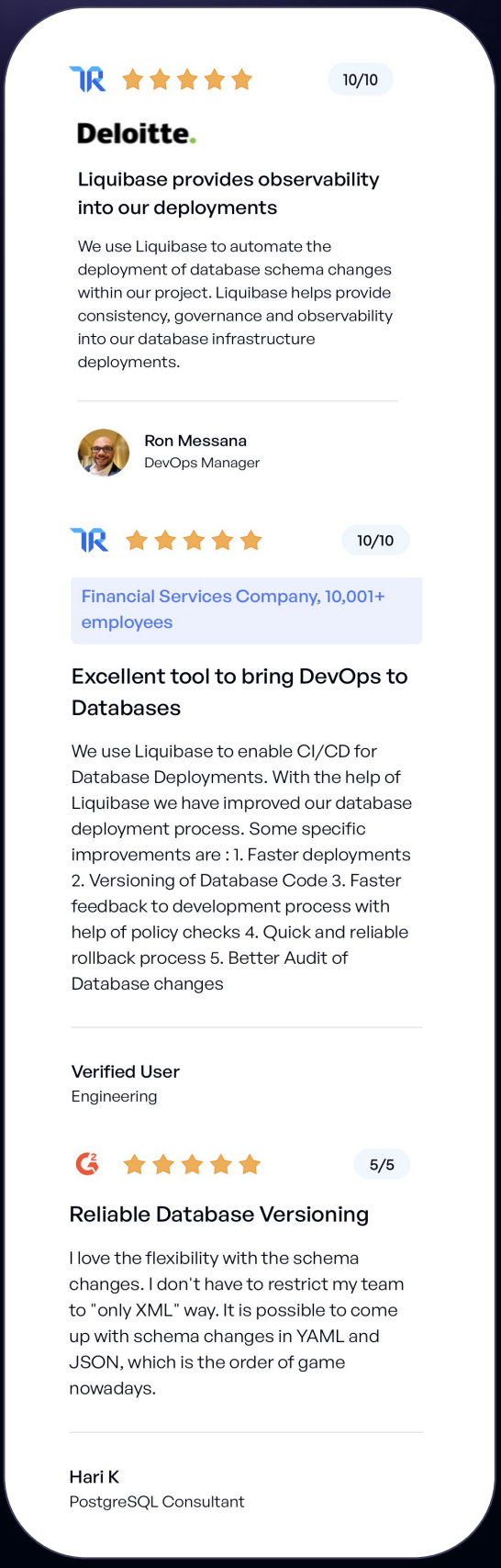
© 2025 Liquibase Inc. All Rights Reserved

Here are some areas to keep in mind when evaluating Liquibase and Bytebase:

Liquibase:

Liquibase has been helping customers manage critical workloads and database change management since 2006. For enterprises managing complex databases that require robust compliance, security, comprehensive logs, and dedicated support, Liquibase offers Liquibase Secure.

- **Focus:** Designed as a platform to help organizations extend devops best practices to the database, Liquibase Secure offers the features and capabilities necessary to apply DevOps patterns and practices to database change workflows. Liquibase Secure ships with governance, compliance, and security features that enterprise customers require.
- **Features:** Tracks, manages, and automates database changes. With version control, CI/CD automation, and advanced features like drift detection, targeted rollbacks, and pipeline analytics, Liquibase makes it easy to treat database changes as code while improving security, governance, and compliance.
- **Strengths:** Streamlines database changes through automation and version control, supports multiple database types, integrates with CI/CD pipelines, and offers excellent documentation. The Liquibase solutions have a long history of performance and scale in mission-critical, high-demand environments at scale.



© 2025 Liquibase Inc. All Rights Reserved

- **Considerations:** Liquibase is driven via the CLI which makes it easy for developers to use although some users have mentioned that the lack of a GUI means that less experienced users have a learning curve. Liquibase provides resources like Liquibase University and a certification program to support knowledge share.

Bytebase:

Bytebase is a database tool that helps developers manage database change. Launched in 2021, the product is less mature than other solutions on the market.

- **Focus:** Bytebase is a database tool that helps developers manage database change. Some users have pointed out that it has limited functionality when it comes to operating security and compliance at scale in complex, multi-database environments.
- **Features:** Bytebase features a GUI-driven workspace for developers and DBAs to manage the database development lifecycle.
- **Strengths:** Provides a unified platform for developers and DBAs and with basic features for data security and governance built in.
- **Considerations:** Bytebase offers relatively limited support for database types (22 supported types to Liquibase's support for more than 70+ database types). Bytebase also has fewer support options and is generally seen as less mature by users.

Case Study: Impact of Database DevOps automation in Financial Services

This global financial institution needed to transform its chaotic, error-prone approach to managing database changes. Automating with Liquibase improved speed, efficiency, scalability, and governance for 30+ application pipelines.

Challenge:
The slow and manual homegrown workflow ate up most (70%) of the DBA team's time and still led to recurring production errors. Already struggling, the team also had to prepare for a shift to hybrid and cloud environments.

Result:
Integrating Liquibase to automate database change management and safeguard data integrity successfully embedded DevSecOps in the database layer, achieving:

- 85% fewer reviews
- 80% less DBA effort
- 8X faster & more frequent deployments
- Errors are a rarity, not a regularity

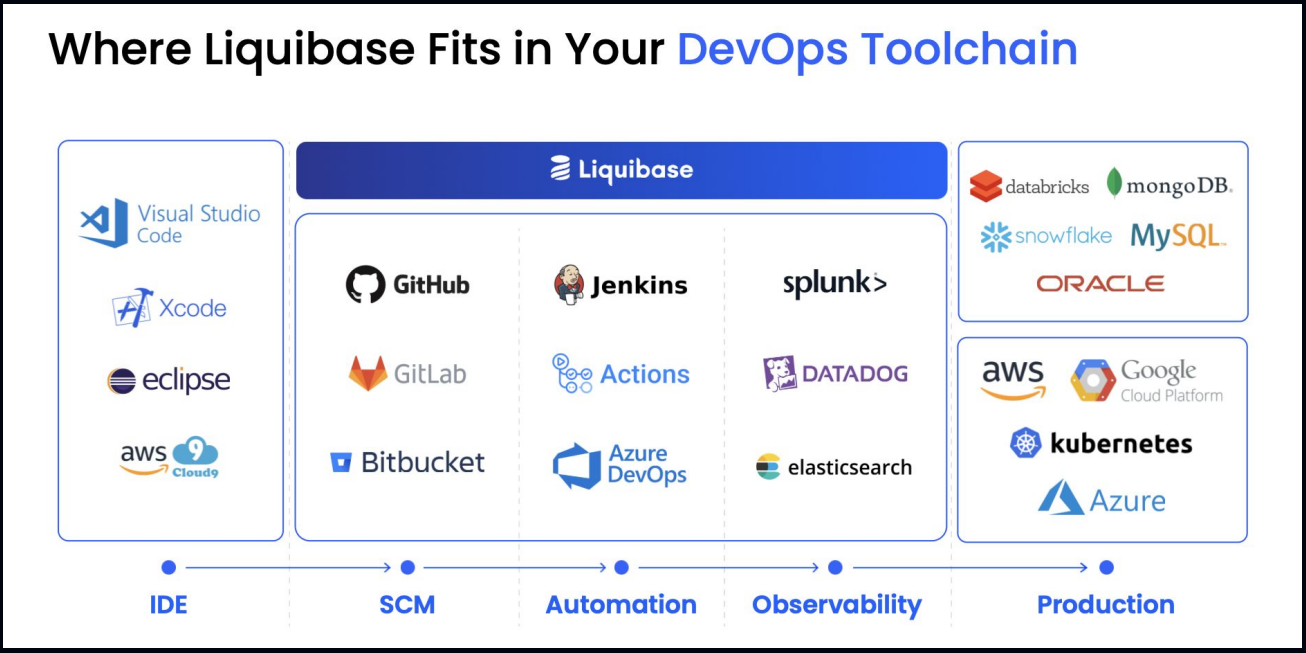
© 2025 Liquibase Inc. All Rights Reserved

Six reasons why leading organizations choose Liquibase

1. Comprehensive Database and Data Warehouse Support: Liquibase has the deepest support across the broadest set of databases with more than 70 supported databases and data warehouses and includes advanced features, like schema comparison, changes reports, drift checks, and auto-generated scripts. By comparison, Bytebase supports fewer than 25 database types.

Adopting Liquibase means that you can standardize and automate change management across all of your databases, and whenever you decide to expand or change your tech stack, Liquibase will grow with you.

2. Flexibility: Liquibase Uses Artifact-based Deployments: When adopting a database devops solution, it is important to consider how your changes will be organized and deployed. Liquibase uses artifact-based deployments with ChangeLogs, which are collaborative, rearrangeable sets of changes that can be written in SQL, XML, JSON, or YAML. Liquibase gives you more flexibility in your database change management and deployment and makes it easier to maintain those changes over time.



© 2025 Liquibase Inc. All Rights Reserved

3. Control: Liquibase makes it easy to skip, rollback, and QA your changes. With artifact-based deployments using ChangeLogs, Liquibase makes it easy to programmatically skip or batch changes by creating subsets of changes with Labels and Contexts. You can also control the execution of an update based on the state of the database with a feature called Preconditions.

Targeted Rollbacks mean you can identify the changeset you need to undo and leave everything else untouched. Bytebase does support the ability to rollback changes, but targeted rollbacks are not supported.

Liquibase Policy Checks allow you to validate database code against predefined rules on-demand or in automation. This means that you can ensure compliance, adhere to code standards, and empower developers to write safe code, every time. Compared to Bytebase, Liquibase Policy Checks are more advanced, available for more databases, and give you more control. This enables you to easily define and adhere to code standards to ensure compliance and empower developers to write safe code, every time.



© 2025 Liquibase Inc. All Rights Reserved

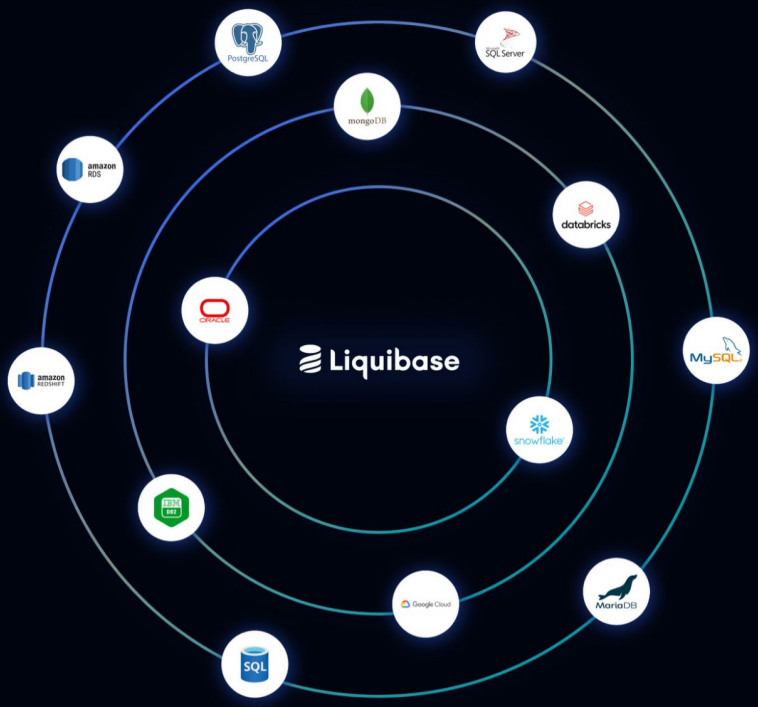
4. Standardization: Liquibase enables consistent deployments and best practices. With Liquibase Flows, you can orchestrate database change workflows and best practices into Flow files for instant and consistent deployments. Flow files can contain multi-step, repeatable workflows to help you standardize best practices across teams and projects to improve governance and save time.

5. Observability: Liquibase provides DevOps metrics for your pipeline. Liquibase's unique feature, Structured Logging, makes it easy to bring database change and deployment data into your DevOps dashboards. By unlocking database workflow visibility, you can gain insights for optimization, triggered automation, governance, security, and more. Structured Logging makes it easy to read pipeline data into your favorite analytics tools to power visual dashboards to track performance and drive continuous improvement.

Liquibase has the deepest support for the broadest set of databases available today. From NoSQL and relational databases to data warehouses and data lakes, Liquibase has established the standard for managing database change with speed, security, and reliability.

Thanks to our growing community and increasing adoption, over half of the databases we support have been contributed by the community and industry leaders including: Databricks, Google, Neo4j, SingleStore, and CockroachDB.

70+ Databases.
One Database DevOps Platform.
The Industry's Broadest Coverage.



© 2025 Liquibase Inc. All Rights Reserved

6. Enterprise-grade support: We treat customer support like a partnership. From planning to implementation and onboarding to ongoing strategic optimization and support, Liquibase is here to be your database DevOps partner. And we have the resources to help your team get better and better with on-demand training. Liquibase University takes DBAs, developers, and anyone else on the team from the fundamentals to expert level with database DevOps expertise from the engineers behind Liquibase.

Liquibase support levels & SLAs

Choose Standard or Premium support for Liquibase Secure to get coverage that fits your team's needs.

	Standard support	Premium support
Sev1 - Urgent Catastrophic Failure – all work has halted or a work stoppage is imminent. The application system is unavailable or unusable. Or, data is being corrupted and work must be stopped to avoid further corruption/loss of data.	1 hr[2]	30 min[2]
Coverage	Business hours[1]	24/7
Sev2 - High Application Inoperable/Data Corrupted – an application in the system is not working or has limited capability and the problem significantly impacts the customer.	2 hrs[2]	1 hr[2]
Coverage	Business hours[1]	24/7
Sev3 - Medium Feature not working as documented – application has issues that can impact customer but that do not stop customer from performing daily business. Or, issues for which there is a reasonable workaround.	8 hrs[2]	4 hrs[2]
Coverage	Business hours[1]	Business hours[1]
Sev4 - Low Informational Question/Cosmetic Issue – problem/question with day-to-day operational issues, cosmetic problem with user interface, error in documentation	1 business day	1 business day
Coverage	Business hours[1]	Business hours[1]

[1]7am - 7pm CT(GMT-6), Monday through Friday, excluding U.S. holidays. [2]Initial response.

© 2025 Liquibase Inc. All Rights Reserved

Liquibase vs Bytebase: Key Differences

Scope: Liquibase offers a comprehensive database devops platform with broad coverages of database and data warehouse types that is optimized for audits, compliance, and governance at scale. Bytebase offers a good GUI interface and targeted support for a smaller number of specific database types.

Logging and reporting: Liquibase has advanced logging and reporting capabilities with support for customized logging levels and the ability to track all deployments on a detailed level. The platform also supports detailed insights and error detection via operation reports. Bytebase's reporting is limited to workspace audit logs and are only available in some versions of the product.

Database Support: Liquibase supports a wide range of databases and data warehouses to provide a comprehensive approach to database devops for the enterprise, while Bytebase consciously focuses on a smaller number of specific databases.

Workflow Automation: Liquibase offers Flows to help standardize and templatize workflows across teams for convenience, compliance, and repeatability. Bytebase provides workflow automation that requires integration and management of third-party tools and multi-step workflows and conditional logic are not supported.

Use Case	Liquibase	Bytebase
Support for database and data warehouse types	70+	22
Script-driven migrations	Advanced	Basic
Visual change workflow	Limited	Advanced
Compliance & audit	Advanced	Basic
Cross-team coordination	Advanced	Basic
Security features	Advanced	Basic
Robust rollback and targeted rollback support	Advanced	N/A
Integration with DevOps tools	Strong	Strong

In essence:

- If you need a more comprehensive platform for database DevOps, including cross-team coordination, data security, and CI/CD integration, Liguibase is a good choice.
- If you need a tool primarily for managing database schema changes and version control for a single team or in smaller environments where compliance and governance are not critical, Bytebase might be a better fit.

© 2025 Liquibase Inc. All Rights Reserved

How to decide:

- Choose **Liquibase** if you require collaborative workflows, strong security and compliance features, governance with control, enterprise-grade auditability, best-in-class SLAs, and access to expertise and support.
- Choose **Bytebase** if you are an individual developer or a small team needing a devops toolset with an easy-to-use GUI.

Delivering DevOps for the database: Liquibase Secure offers the features and capabilities necessary to treat database code like app code. Accelerate database changes, reduce failures, and enforce governance across your pipelines.

Key features:

- Flows for automation
- Policy checks for governance
- Automatic drift detection for reliability
- Structured logging for observability and insights

Liquibase Developer

Design Fast.
Develop Smart.

Boost developer productivity with changelog authoring, standards enforcement, and integrated guardrails — ensuring efficient and consistent schema design

Liquibase Automation

Deploy Safely.
Scale Confidently.

Deliver enterprise-grade database change automation with robust governance, reliable execution, detailed auditing, and policy enforcement across environments

Liquibase Insights

Complete Visibility.
Continuously Improve.

Get centralized visibility into database change activity with structured logs, DevOps metrics, policy check results, reports, and data to help you make informed decisions.

Want to reduce risk and overhead?
Contact us to see how Liquibase Secure can help.

© 2025 Liquibase Inc. All Rights Reserved

Liquibase

About Liquibase:

Liquibase empowers teams to deliver mission-critical software, data products, and AI applications by automating and governing database change. We are the company behind Liquibase, the popular open source project downloaded more than 100 million times and trusted by thousands of teams worldwide.

Liquibase Secure is an enterprise-grade, unified Database DevOps platform built on top of that proven open source foundation. It gives developers, platform teams, and data teams the automation, policy enforcement, and observability they need to move fast with confidence. Trusted by the world's most innovative and highly regulated enterprises, Liquibase Secure powers the last mile of software and data delivery. The future of software and data delivery depends on making database change fast, trusted, and predictable. That is what Liquibase delivers. Learn more at www.Liquibase.com.