Connect your world with IBM Cloud Private and IBM Db2

A multi-workload database built on performance, flexibility and security, now on IBM Cloud Private

Multi-workload database management solution

In order for organizations to move forward in their business transformation, a next-generation database is needed to handle a massive volume of data while delivering high performance to support real-time analytics. At the same time, it must provide data availability for demanding applications, scalability for growth and flexibility for responding to changes.

IBM Db2 offers a multi-workload database management solution built with these challenges in mind, providing new innovative capabilities and advanced features to meet demanding data processing requirements on-premises or in the cloud. Combine Db2 with IBM Cloud Private, and you can experience a database that enterprises have trusted for years with the added benefits of an IBM-designed private cloud architecture.

Connect almost anything on premises and in the cloud

Aligned with IBM’s public cloud, IBM Cloud Private offers organizations consistent on-and-off premises platform services. IBM Cloud Private can open your existing assets, expertise and processes to help enable a more nimble consumption model that drives innovation. Developers can more easily integrate with data services that provide cloud capabilities to innovate faster through ease of integration with enterprise software and new cloud services, and to optimize costs with consistent management and security.

Highlights

- Connects applications, systems and services on premises and cloud
- Allows you to consume IBM Db2 with IBM Cloud Private your way
- Helps secure and protect your applications and business
- Helps you migrate your existing applications built on Db2 to the cloud seamlessly
- Allows you to create net-new cloud native applications with Db2 quickly
- Scales to meet your needs
IBM Cloud Private has at its core the infrastructure, tools, runtimes and services needed to make a private cloud foundation rock-solid. With containers, Kubernetes, and Cloud Foundry at the base, you can excel in your adoption of container technology as a strategic building block for increasing application developer productivity and decoupling teams to help enable speed and agility. Enterprises can more easily and efficiently automate, deploy, scale and manage containerized applications across private and public clouds. With automated, built-in dashboards and analytics, you can manage applications and services across multiple clouds for flexibility and choice. Add in the services needed to do key functions like connecting APIs and data, while also monitoring, logging and managing events—and you now have a foundation built for rapidly producing quality code and accelerating business value.

IBM Cloud Private empowers both developers and administrators to meet business demands. Developers can tap into a rich stack of built-in development tools and services so they can turn ideas into working code quickly, while the operations team can access a powerful set of enterprise-grade management tools to keep the platform more secure and up to date.

It’s the best of both worlds—helping enterprises leverage the power of private cloud to modernize existing applications and workloads while enabling new technologies and DevOps models for new application creation and deployment—all with a single platform.

The ability to consume IBM Db2 and IBM Cloud Private your way

Db2 is designed to help ensure your data systems are fast, available, scalable, security-rich and flexible, helping you capture the value of data through right-time actionable insights. Db2 excels in environments that utilize various data types (structured, semi-structured and unstructured), whether on-premises or in the cloud. It is optimized for SAP applications, transactional and analytics workloads, and features an average of 98 percent Oracle Database application compatibility.¹ Yet this added flexibility doesn’t result in additional complexity since it takes advantage of the common SQL engine, found in IBM’s entire family of hybrid data management offerings. The common SQL engine allows you to leverage data where it sits across Db2, Oracle, SQL Server, and third-party data sources. When combined with Db2 Warehouse, analytics can be performed where the data resides, adding even greater flexibility.

This natural flexibility is then bolstered by the ability to run Db2 in a container on IBM Cloud Private, allowing organizations to reduce the amount of wasted resources by more closely aligning usage with needs. With Kubernetes and Cloud Foundry at the base of IBM Cloud Private, using a containerized Db2 also provides advantages in scalability, flexibility, and optimal hardware utilization typically associated with clouds. And since it sits behind the firewall, organizations can determine the level of control and involvement tailored to unique security, compliance and management concerns.

What’s new with IBM Cloud Migration Services and IBM Cloud Private?

Innovation
• Includes JSON support for unstructured data with an IBM-provided Java™ driver for JSON API
• Helps leverage NoSQL community drivers for data access and indexing support in API and
• Enables the ability to insert, update, delete and select, import from or export to MongoDB export JS-files, or use command-line tools

Integration
• Delivers a common SQL engine, which allows data to be accessed and consumed where it resides—both in the cloud and on-premises
• Integrates with a variety of APIs and frameworks including RESTful, RStudio, Node.js, Visual Studio and more

Compliance and management
• Offers greater control over security, compliance and management with Db2 behind your firewall when running on IBM Cloud Private
• Provides built-in security-rich and compliance management features to help provide protection to online and backup data to support data governance requirements for compliance purposes

• Supports key management interoperability Protocol 1.1 (KMIP 1.1) to provide centralized key management for many databases and file systems across the enterprise

**Investment protection**

• Leverages Db2 skills and knowledge in the private cloud, as well as APIs, frameworks and multiple languages such as C/C++, C#, Javascript, Spark, Ruby and more

• Moreover, due to the flexible nature of data access within Db2 and the fact that the IBM’s family of hybrid data warehouse products share the common SQL engine, this Db2 investment will provide room to grow. You can connect to the databases you’re already using like MongoDB, connect to other data sources that might be used in the future, and even move data to a public cloud or non-cloud version of Db2 as your needs change.

---

**The high performance you’ve come to expect from DB2**
Db2 offers enterprise-level performance with technologies such as BLU Acceleration, Massively Parallel Processing (MPP)-based cluster architecture to provide insight from real-time operational and historical data. Db2 supports in-memory speed and simplicity on existing infrastructures along with improvements for deeper in-database analytics. In addition, the table and index compression with page-level compression Db2 provides can reduce storage and increase performance—advantages maintained when Db2 is deployed in a private cloud such as IBM Cloud Private.

---

**Why IBM Cloud Private?**
Built to help you solve problems and advance opportunities in a world rich with data, IBM Cloud Private can deliver:

**Business innovation**

• New microservices-based applications to build, deploy and manage more easily—offering dynamic scalability and variable demand management

• New integrated IBM and open source DevOps tools and services for code repositories, deployment, test automation and promotion to production

• Virtually seamless integration to IBM Public Cloud—designed to offer secure access and integration to innovative technologies including cognitive/AI, Blockchain, IoT and more

**Integration**

• Ease of access to the platform and other services to help developers easily integrate within and across cloud environments

• Catalog of services and integration tools to assist developers on and off premises

**Greater compliance and management**

• Capabilities designed to monitor, secure and operate microservices at scale

• Security-rich corporate data and compliance management with government regulations and/or industry standards

• Management, backup and recovery of data and applications

**Investment protection**

• Ability to preserve or delay risky application changes by using the next generation of cloud-enabled software

• Ability to modernize existing heritage applications while integrating with new applications
Ready to try it out?
Install the cost-free Community Edition of IBM Cloud Private (hotlink to: ibm.com/marketing/iwm/dre/signup?source=urx-19310&S_PKG=ov60811

For more information
To learn more about IBM Db2 Manager, please contact your IBM representative or IBM Business Partner, or visit: ibm.com/analytics/us/en/db2/

© Copyright IBM Corporation 2017
IBM Corporation
New Orchard Road
Armonk, NY 10504
Produced in the United States of America
October 2017
IBM, the IBM logo and ibm.com are trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the web at “Copyright and trademark information” ibm.com/legal/copytrade.shtml

Java and all Java-based trademarks and logos are trademarks or registered trademarks of Oracle and/or its affiliates.

This document is current as of the initial date of publication and may be changed by IBM at any time. Not all offerings are available in every country in which IBM operates.

Statements regarding IBM's future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only.

It is the user's responsibility to evaluate and verify the operation of any other products or programs with IBM products and programs.

THE INFORMATION IN THIS DOCUMENT IS PROVIDED "AS IS" WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING WITHOUT ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTY OR CONDITION OF NON-INFRINGEMENT. IBM products are warranted according to the terms and conditions of the agreements under which they are provided.

The client is responsible for ensuring compliance with laws and regulations applicable to it. IBM does not provide legal advice or represent or warrant that its services or products will ensure that the client is in compliance with any law or regulation.

Statement of Good Security Practices: IT system security involves protecting systems and information through prevention, detection and response to improper access from within and outside your enterprise. Improper access can result in information being altered, destroyed, misappropriated or misused or can result in damage to or misuse of your systems, including for use in attacks on others. No IT system or product should be considered completely secure and no single product, service or security measure can be completely effective in preventing improper use or access. IBM systems, products and services are designed to be part of a lawful, comprehensive security approach, which will necessarily involve additional operational procedures, and may require other systems, products or services to be most effective. IBM DOES NOT WARRANT THAT ANY SYSTEMS, PRODUCTS OR SERVICES ARE IMMUNE FROM, OR WILL MAKE YOUR ENTERPRISE IMMUNE FROM, THE MALICIOUS OR ILLEGAL CONDUCT OF ANY PARTY.

1 Based on internal studies. Actual client results may vary.