IBM Db2 on Cloud

A fully-managed, relational database on IBM Cloud and Amazon Web Services with elastic scaling and autonomous failover

IBM

Highlights

- 99.99% uptime SLA with high availability plans and offsite disaster recovery
- Leverages Db2 HADR, portable IPs, and automatic client re-route for failovers
- Scaling of any size database in under 90 minutes without downtime
- Elastic scaling of storage and compute so you can pay for what you use
- Built-in web console with SQL editor and basic tools
- Fully-managed with the full power of the Db2 Advanced Enterprise engine

IBM® Db2® on Cloud is a fully-managed, SQL cloud database that can be provisioned on IBM Cloud™ and Amazon Web Services, eliminating the time and expense of hardware set up, software installation, and general maintenance. Db2 on Cloud provides seamless compatibility, integration, and licensing with the greater Db2 family, making your data highly portable and extremely flexible. Through the Db2 offering ecosystem, businesses are able to desegregate systems of record and gain true analytical insight regardless of data source or type. Db2 on Cloud and the greater Db2 family support hybrid, multicloud architectures, providing access to intelligent analytics at the data source, insights across the business, and flexibility to support changing workloads and consumptions cases. Whether you're looking to build cloud-native applications, transition to a fully-managed instance of Db2, or offload certain workloads for disaster recovery, Db2 on Cloud provides the flexibility and agility needed to run fast queries and support enterprise-grade applications.

Features and benefits of Db2 on Cloud

Security and disaster recovery
Cloud databases must provide technology to secure applications and run on a platform that provides functional, infrastructure, operational, network, and physical security. IBM Db2 on Cloud accomplishes this by encrypting data both at rest and in flight, so that data is better protected across its lifecycle. IBM Db2 on Cloud helps restrict data use to only approved parties with user authentication for platform services and resource access control. As part of this protection, all Db2 on Cloud database instances are enabled to use IBM identity and access management tools.

To help organizations adhere to various data and security regulations, the Flex and various Precise Performance plans on IBM Cloud and AWS also include the following security standards and auditing processes:

- ISO
- HIPAA
- SOC 2 Type 2
- GDPR
- Privacy Shield

High availability plans with geo-replicated disaster recovery nodes
Even when data is secured against malicious outsiders and restricted from internal users without a need for access, data can be lost or access can be interrupted due to error or disaster. Db2 databases aim to mitigate this risk with robust backup and availability features. IBM Db2 on Cloud offers daily backups that can be held for 14 days with database copying options. With these backups, you can restore your Db2 instance to a specific point in time that's prior to an unwanted event.

Db2 on Cloud offers high availability plans with a 99.99% uptime SLA, seamless failover, and rolling updates, all of which are managed for you by using automatic client reroute (ACR) and portable IPs. This is accomplished by using a second server which immediately takes over if the primary server fails and the inclusion of elastic IP technology which makes it easy to integrate high availability into applications. Additional geo-replicated disaster recovery nodes for offsite recovery are also available so you can sync your data in real time to a database node in an offsite IBM Cloud data center. This is particularly useful so that operations may continue despite localized, ongoing outages or disasters.

Data federation for a truly hybrid architecture
Db2 on Cloud supports data virtualization, giving you single-query access to all of your data anywhere in the organization. The common SQL engine underlying Db2 on Cloud makes this possible. It allows applications to work on-cloud or on-premises across the Db2 family of offerings, including databases, data warehouses, open source projects, and existing Netezza® offerings. The common SQL engine also supports built-in data virtualization and includes an Oracle Application Compatibility layer, allowing Oracle applications to integrate with the IBM Db2 family. Simply put, the common SQL engine allows organizations to write SQL coding once and deploy it virtually anywhere.

This code flexibility is beneficial in several ways. Foremost, not needing to rework code across different data management solutions saves time that can be put toward value-additive projects. Similarly, better access to data across the organization provides the opportunity for more variables to be considered and more complete insights to be found. Scalability is also heightened as the common code base makes extending your architecture with additional cloud capacity a simpler prospect without concern for data transfer complications. This is also true for load balancing across cloud and on-premises deployments. Finally, the common SQL engine enables microservices to more seamlessly work together without needing to build out extensive connections to make the code align.

Deployable on multiple public cloud providers
Db2 on Cloud can currently be deployed with all of its core capabilities on IBM Cloud and Amazon Web Services (AWS), giving businesses all of the features and capabilities unique to the Db2 engine while running on their data infrastructure of choice. Operating across multiple clouds gives you access to greater data analytic capabilities that may not be found in one, standardized cloud. Db2 on Cloud workloads deployed on AWS support high availability options, rolling updates, private VPC (on request), extremely fast provisioned IOPs, and replications on-premises.

In addition to the fully-managed version of Db2 on Cloud on AWS, you can use the Amazon AWS Marketplace to launch Db2 on an AWS virtual machine with full root access. You can even use your existing Db2 license.

You can also use IBM Cloud Pak™ for Data on AWS to run Db2 on a private cloud. IBM products within the Watson™, Cognos®, and other solution sets that may not have been able to run on AWS previously can also be part of a robust solution leveraging IBM Cloud Pak for Data and Db2. This is particularly important if your data already resides on AWS, allowing businesses to avoid moving to a different cloud provider.

Migrating your existing Db2 on-premises workloads to cloud is simple as well with minimal change to your current processes. If you currently hold Db2 entitlements, you can access Db2 on Cloud services at a reduced price.

Independent scaling of storage and compute power
Db2 on Cloud provides independent scaling of RAM, storage, and compute cores which can be adjusted via its intuitive console using dynamic sliders. With independent scaling, organizations are able to meet peak workload demand when necessary, without needing to endure the expenses of maintaining that computing capacity at all times. Users can simply use the slider to increase compute cores now and decrease it later without needing to worry about the hassle of changing plans, or having additional storage and storage costs tied to that decision. Greater flexibility is therefore encouraged, allowing businesses to better tailor the creation of insights based on their unique organizational and market situations. The initial Flex plan deploys with 1 core, 4 GB of RAM, and 2 GB of disk space.

Secure connectivity options to meet your application requirements
Common programming languages such as JDBC, ODBC, CLI, .NET, PHP, and REST API may be used to create applications that connect to Db2 on Cloud. External applications and tools like DataStage®, Segment, Data Studio, Cognos Analytics, Microsoft Excel, and SPSS® can also be connected to Db2 on Cloud and used to further manage or analyze your data. Applications can be connected by way of a public host name, provided when the service is provisioned, or, if requested, a private host name on an isolated network that is accessible through a virtual private network (VPN). Together this means that data scientists and developers will have access to their favorite tools and languages, leveraging existing skills without needing to spend time retraining, and have the flexibility they need to do their best work.

Use cases

Cloud native application development
When developing a new application or testing various applications, using a fully-managed cloud database enables programmers to work much faster and save costs by scaling down compute or deleting systems not in use. Servers can be deployed with one click and scale in under 20 minutes, no matter how much disk space is required.

Develop and test on the cloud for on-premises production
Companies looking to accelerate development of a legacy application, needing to lower development costs, or seeking to test production-ready applications should consider using a public cloud. Db2 on Cloud provides instant deployment and automated testing so that development and testing can happen quickly. This also helps avoid the risk of developers and testing processes occupying CPU, storage, and network resources necessary for critical workloads. Yet, when the development and testing is complete the vetted applications can easily be run in an on-premises production environment using the same common SQL engine to reduce migration costs.

Failover to cloud
With Db2 on Cloud, an HA node in a certified, compliant IBM data center can easily be added. This offers seamless failover through Active Connection Reroute without requiring a migration or a new data center.

Service plans

IBM Db2 on Cloud offers four types of database configurations to meet business requirements:

Service plans

Pricing plan	Instance type	Base cost per instance	High availability instance **	RAM	Storage	1 million IO operations	Disaster recovery node instance **
Lite Plan	Shared multi-tenant	$0	-	-	200 MB included	-	-
Flex Plan (Most Popular)	Single-tenant virtual server	$189	+$189	4 GB included + $13 per extra GB	2 GB included + $1 per extra GB	+ $0.20	+ $189
Precise Performance Plans							
500 Plan	Single-tenant	$250	+ $250	8 GB included	500 GB included	-	+ $250
1400 Plan	Dedicated bare metal server	$4,000	+ $4,000	128 GB included	1.4 TB included	-	+ $4,000
10000 Plan	Dedicated bare metal server	$18,000	+ $18,000	1 TB included	11 TB included	-	+ $18,000
Hybrid Data Management Platform Flex Plan	Single-tenant virtual server	$189***	+ $189	4 GB included + $13 per extra GB	2 GB included + $1 per extra GB	+ $0.20	+ $189

* All costs in USD per month. ** Denotes add-on pricing. *** Minimum spend of USD 250/month is required.

For more information and to start a trial at no charge

To learn more about Db2 on Cloud and to start a trial at no cost, contact your IBM representative or IBM Business Partner, or visit ibm.com/cloud/db2-on-cloud.

You can also access $200 USD in IBM Cloud credit when you deploy your first instance of Db2 on Cloud. Learn how.

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