

IBM Db2 on Cloud

This Service Description describes the Cloud Service IBM provides to Client. Client means the contracting party and its authorized users and recipients of the Cloud Service. The applicable Quotation and Proof of Entitlement (PoE) are provided as separate Transaction Documents.

IBM Cloud, IBM's open standards cloud platform for building, running, and managing apps and services, is a technical pre-requisite for the Cloud Service. New users can register for access via the online registration form: <https://console.ng.bluemix.net/registration>.

1. Cloud Service

The Db2 on Cloud offerings provide a Db2 database that is optimized for online transaction processing (OLTP). The service includes a database that stores user data in a structured format. This database can be accessed and modeled according to the user's requirements through the service's console. The service's console allows users to create tables, load data into the tables and query the data loaded by the user.

The following IBM Cloud Services are covered by this Cloud Service Description:

1.1 IBM Db2 on Cloud Fixed-Size Offerings

1.1.1 IBM Db2 on Cloud High Availability 2.8.500

One SQL database per service Instance on redundant dedicated virtual servers with 8GB RAM and 2 vCPUs. Provides up to 500GB of storage for data and logs.

1.1.2 IBM Db2 on Cloud High Availability 12.128.1400

One SQL database per service Instance on redundant dedicated bare metal servers with 128GB RAM and 12 Cores. Provides up to 1400GB of SSD storage for data and logs.

1.1.3 IBM Db2 on Cloud High Availability 48.1000.10000

One SQL database per service Instance on redundant dedicated bare metal servers with 1TB RAM and 48 Cores. Provides up to 11TB of storage for data and logs.

1.1.4 IBM Db2 on Cloud 2.8.500

One SQL database per service Instance on a dedicated server with 8GB RAM and 2 vCPUs. Provides up to 500 GB of storage for data and logs.

1.1.5 IBM Db2 on Cloud 12.128.1400

One SQL database per service Instance on a dedicated bare metal server with 128GB RAM and 12 Cores. Provides up to 1400GB of SSD storage for data and logs.

1.1.6 IBM Db2 on Cloud 48.1000.10000

One SQL database per service Instance on a dedicated bare metal server with 1TB RAM and 48 Cores. Provides up to 11TB of storage for data and logs.

1.2 IBM Db2 on Cloud Flex Offerings

1.2.1 IBM Db2 on Cloud High Availability Flex

The "HA Flex Plan" is a replica of the Base Flex Plan for use in a high availability configuration. It includes one SQL database per service Instance with 4GB RAM, 1 Core, and 2GB of storage for data and logs.

1.2.2 IBM Db2 on Cloud High Availability RAM Flex

"RAM Flex" provides one additional Gigabyte of RAM per month above the RAM included in the Base Flex Plan.

1.2.3 IBM Db2 on Cloud High Availability Storage Flex

"Storage Flex" provides one additional Gigabyte of storage per month above the storage included in the Base Flex Plan.

1.2.4 IBM Db2 on Cloud Flex

The "Base Flex Plan" includes one SQL database per service Instance with 4GB RAM, 1 Core, and 2GB of storage for data and logs.

1.2.5 IBM Db2 on Cloud RAM Flex

"RAM Flex" provides one additional Gigabyte of RAM per month above the RAM included in the Base Flex Plan.

1.2.6 IBM Db2 on Cloud Storage Flex

"Storage Flex" provides one additional Gigabyte of storage per month above the storage included in the Base Flex Plan.

1.2.7 IBM Db2 on Cloud Unlimited IO Flex

"Unlimited IO Flex" charges for Events used by the Base Flex Plan and used by optional HA Flex Plan(s).

1.3 IBM Db2 on Cloud BYOL Offerings

Db2 on Cloud Bring Your Own License (BYOL) offerings include the same configurations as the Db2 on Cloud offerings above, but the Client brings their on premises licenses for use in the Cloud Service. See Section 7.5, "Terms applicable to Db2 on Cloud BYOL", for more details.

1.3.1 IBM Db2 on Cloud BYOL High Availability 2.8.500

One SQL database per service Instance on redundant dedicated bare metal servers with 8GB RAM and 2 Cores. Provides up to 500GB of SSD storage for data and logs.

1.3.2 IBM Db2 on Cloud BYOL High Availability 12.128.1400

One SQL database per service Instance on redundant dedicated bare metal servers with 128GB RAM and 12 Cores. Provides up to 1400GB of SSD storage for data and logs.

1.3.3 IBM Db2 on Cloud BYOL High Availability 4800.1000.10000

One SQL database per service Instance on redundant dedicated bare metal servers with 1TB RAM and 48 Cores. Provides up to 11TB of storage for data and logs.

1.3.4 IBM Db2 on Cloud BYOL 2.8.500

One SQL database per service Instance on a dedicated bare metal server with 8GB RAM and 2 Cores. Provides up to 500GB of SSD storage for data and logs.

1.3.5 IBM Db2 on Cloud BYOL 12.128.1400

One SQL database per service Instance on a dedicated bare metal server with 128GB RAM and 12 Cores. Provides up to 1400GB of SSD storage for data and logs.

1.3.6 IBM Db2 on Cloud BYOL 48.1000.10000

One SQL database per service Instance on a dedicated bare metal server with 1TB RAM and 48 Cores. Provides up to 11TB of storage for data and logs.

1.3.7 IBM Db2 on Cloud BYOL High Availability Flex

The "BYOL HA Flex Plan" is a replica of the BYOL Base Flex Plan for use in a high availability configuration. It includes one SQL database per service Instance with 4GB RAM, 1 Core, and 2GB of storage for data and logs.

1.3.8 IBM Db2 on Cloud BYOL High Availability RAM Flex

"BYOL RAM Flex" provides one additional Gigabyte of RAM per month above the RAM included in the BYOL Base Flex Plan.

1.3.9 IBM Db2 on Cloud BYOL High Availability Storage Flex

"BYOL Storage Flex" provides one additional Gigabyte of storage per month above the storage included in the Base Flex Plan.

1.3.10 IBM Db2 on Cloud BYOL Flex

The "BYOL Base Flex Plan" includes one SQL database per service Instance with 4GB RAM, 1 Core, and 2GB of storage for data and logs.

1.3.11 IBM Db2 on Cloud BYOL RAM Flex

"BYOL RAM Flex" provides one additional Gigabyte of RAM per month above the RAM included in the Base Flex Plan.

1.3.12 IBM Db2 on Cloud BYOL Storage Flex

"BYOL Storage Flex" provides one additional Gigabyte of storage per month above the storage included in the Base Flex Plan.

1.3.13 IBM Db2 on Cloud BYOL Unlimited IO Flex

"BYOL Unlimited IO Flex" charges for Events used by the Base Flex Plan and used by optional HA Flex Plan(s).

1.4 IBM Db2 on Cloud HDMP Flex

The IBM Db2 on Cloud HDMP Flex plan is only applicable to Clients who have purchased the IBM Hybrid Data Management Platform subscription offering.

The IBM Db2 on Cloud HDMP Flex plan provides one SQL database on a private virtual server. For each Virtual Processor Core (VPC) entitlement, the server includes one (1) core and up to 4GB RAM and 2000 GB of storage for data and logs, as allocated by Client.

Core, memory and/or storage values above are subject to maximum scalability limits described in the Cloud Service catalogue page or other documentation.

1.5 Additional Services

1.5.1 IBM Db2 on Cloud Geo-Replicated Disaster Node

One additional virtual or bare metal server with the same specifications as the base IBM Db2 on Cloud offering for failover purposes. Can be used with any offering listed in Section 1.1 "IBM Db2 on Cloud Fixed-Size Offerings" or Section 1.2 "IBM Db2 on Cloud Flex Offerings" or Section 1.3 "IBM Db2 on Cloud BYOL Offerings".

1.6 Remote Services

1.6.1 IBM Db2 on Cloud Jump Start

Provides up to 50 hours of remote consulting time for startup activities including (1) assistance with use cases, (2) coaching on best practices for reports, dashboards and other systems tooling, (3) guided assistance and advice on preparation, execution and validation for initial data loading, and (4) other administrative and configuration topics of interest (collectively, "Startup Activities"). Services are purchased per Engagement, and expire 90 days from the date of purchase of entitlement for this Remote Service or from the date Client is notified by IBM that access to the Cloud Service is available, whichever is later, regardless of whether all hours have been used.

1.6.2 IBM Db2 on Cloud Accelerator

Provides up to 50 hours of remote consulting time for performing Startup Activities or other activities specified and scoped at the time of purchase in one or more mutually agreed transaction documents. Services are purchased per Engagement and expire 12 months from the date of purchase of entitlement for this Remote Service or on the last day of the initial Cloud Service subscription term, whichever is earliest, regardless of whether all hours have been used.

2. Content and Data Protection

The Data Processing and Protection data sheet (Data Sheet) provides information specific to the Cloud Service regarding the type of Content enabled to be processed, the processing activities involved, the data protection features, and specifics on retention and return of Content. Any details or clarifications and terms, including Client responsibilities, around use of the Cloud Service and data protection features, if any, are set forth in this section. There may be more than one Data Sheet applicable to Client's use of the Cloud Service based upon options selected by Client. The Data Sheet may only be available in English and not available in local language. Despite any practices of local law or custom, the parties agree that they understand English and it is an appropriate language regarding acquisition and use of the Cloud Services. The following Data Sheet(s) apply to the Cloud Service and its available options. Client acknowledges that i) IBM may modify Data Sheet(s) from time to time at IBM's sole discretion and ii) such

modifications will supersede prior versions. The intent of any modification to Data Sheet(s) will be to i) improve or clarify existing commitments, ii) maintain alignment to current adopted standards and applicable laws, or iii) provide additional commitments. No modification to Data Sheet(s) will materially degrade the data protection of a Cloud Service.

Link(s) to the applicable Data Sheet(s):

<https://www.ibm.com/software/reports/compatibility/clarity-reports/report/html/softwareReqsForProduct?deliverableId=26807B304DE611E69D99A7F65171374C>

Client is responsible to take necessary actions to order, enable, or use available data protection features for a Cloud Service and accepts responsibility for use of the Cloud Services if Client fails to take such actions, including meeting any data protection or other legal requirements regarding Content.

IBM's Data Processing Addendum at <http://ibm.com/dpa> (DPA) and DPA Exhibit(s) apply and are referenced in as part of the Agreement, if and to the extent the European General Data Protection Regulation (EU/2016/679) (GDPR) applies to personal data contained in Content. The applicable Data Sheet(s) for this Cloud Service will serve as the DPA Exhibit(s). If the DPA applies, IBM's obligation to provide notice of changes to Subprocessors and Client's right to object to such changes will apply as set out in DPA.

2.1 Content and Data Protection Features and Responsibilities

The Cloud Service implements the following security features:

When the Cloud Service is provisioned, a single administrative user is created for Client. The Db2 on Cloud console provides administrative users the ability to create additional users. Client is wholly responsible for managing the users defined via the console and the level of access assigned to them.

Both administrative and regular users are able to directly access the Cloud Service data store using IBM Db2 client programs run outside the Cloud Service. Client is wholly responsible for ensuring that such access is secured according to Client's requirements. For example, Client may configure the clients such that SSL is used to protect network traffic.

The Cloud Service allows Client to manage the access rights associated with some database objects, such as tables. Client is wholly responsible for assigning, managing and reviewing these access rights.

The Cloud Service databases are automatically encrypted. The encryption uses Advanced Encryption Standard (AES) in Cipher-Block Chaining (CBC) mode with a 256 bits key. Also, database backup images are automatically compressed and encrypted. Backup images are encrypted using AES in CBC mode with 256 bit keys.

2.2 Content and Data Protection for Health Data

Notwithstanding information in the Data Sheet for this Cloud Service regarding the Health Information Portability and Accountability Act of 1996 ("HIPAA") and the permitted use of Health Information and Health data as Types of Personal Data and/or Special Categories of Personal Data (collectively, "Health Data") with this Cloud Service, use of Health Data with this Cloud Service is subject to the following limitations and conditions:

- a. This Cloud Service is only provisioned to implement the HIPAA Privacy and Security Rule controls for use with Health Data if Client notifies IBM in advance that Client will use Health Data with the Cloud Service and IBM confirms in writing that the Cloud Service will be provisioned for Health Data usage. Accordingly, the Cloud Service may not be used for the transmission, storage or other usage of any Health Data protected under HIPAA unless (i) Client provides IBM such notification; (ii) IBM and Client have entered into an applicable Business Associate Agreement; and (iii) IBM provides Client with express written confirmation that the Cloud Service can be used with Health Data.
- b. In no event shall the Cloud Service be used for processing Health Data as a health care clearinghouse within the meaning of HIPAA.

3. Service Level Agreement

IBM provides the following availability service level agreement ("SLA") for the Cloud Service as specified in a PoE. The SLA is not a warranty. The SLA is available only to Client and applies only to use in production environments.

3.1 Availability Credits

Client must log a Severity 1 support ticket with the IBM technical support help desk within 24 hours of first becoming aware that there is a critical business impact and the Cloud Service is not available. Client must reasonably assist IBM with any problem diagnosis and resolution.

A support ticket claim for failure to meet an SLA must be submitted within seven business days after the end of the contracted month. Compensation for a valid SLA claim will be a credit against a future invoice for the Cloud Service based on the duration of time during which production system processing for the Cloud Service is not available ("Downtime"). Downtime is measured from the time Client reports the event until the time the Cloud Service is restored and does not include time related to a scheduled or announced maintenance outage; causes beyond IBM's control; problems with Client or third party content or technology, designs or instructions; unsupported system configurations and platforms or other Client errors; or Client-caused security incident or Client security testing. IBM will apply the highest applicable compensation based on the cumulative availability of the Cloud Service during each contracted month, as shown in the table below. The total compensation with respect to any contracted month cannot exceed 25 percent of one twelfth (1/12th) of the annual charge for the Cloud Service.

3.2 Service Levels for "High Availability" Plans

Availability of the Cloud Service during a contracted month

Availability during a contracted month	Compensation (% of monthly subscription fee* for contracted month that is the subject of a claim)
≥ 99.99%	0%
< 99.99%	10%
< 99%	25%

* If the Cloud Service was acquired from an IBM Business Partner, the monthly subscription fee will be calculated on the then-current list price for the Cloud Service in effect for the contracted month which is the subject of a claim, discounted at a rate of 50%. IBM will make a rebate directly available to Client.

Availability, expressed as a percentage, is calculated as: the total number of minutes in a contracted month, minus the total number of minutes of Downtime in the contracted month, divided by the total number of minutes in the contracted month.

3.3 Service Levels for Plans without "High Availability"

Availability of the Cloud Service during a contracted month

Availability during a contracted month	Compensation (% of monthly subscription fee* for contracted month that is the subject of a claim)
≥ 99.5%	0%
< 99.5%	10%
< 99%	25%

* If the Cloud Service was acquired from an IBM Business Partner, the monthly subscription fee will be calculated on the then-current list price for the Cloud Service in effect for the contracted month which is the subject of a claim, discounted at a rate of 50%. IBM will make a rebate directly available to Client.

Availability, expressed as a percentage, is calculated as: the total number of minutes in a contracted month minus the total number of minutes of Downtime in a contracted month divided by the total number of minutes in the contracted month.

4. Technical Support

Technical support for the Cloud Service is provided via email, online forums, and an online problem reporting system. IBM's software as a service support guide available at https://www-01.ibm.com/software/support/saas_support_guide.html provides technical support contact and other information and processes. Technical support is offered with the Cloud Service and is not available as a separate offering.

5. Entitlement and Billing Information

5.1 Charge Metrics

The Cloud Service is available under the charge metric specified in the Transaction Document:

- Engagement is a unit of measure by which the services can be obtained. An Engagement consists of professional and/or training services related to the Cloud Service. Sufficient entitlements must be obtained to cover each Engagement.
- Instance is a unit of measure by which the Cloud Service can be obtained. An Instance is access to a specific configuration of the Cloud Service. Sufficient entitlements must be obtained for each Instance of the Cloud Service made available to access and use during the measurement period specified in Client's PoE or Transaction Document.
- Gigabyte-month is a unit of measure by which the Cloud Service can be obtained. A Gigabyte is 2 to the 30th power bytes. Sufficient entitlements must be obtained to cover the average number of Gigabytes, rounded up to the nearest Gigabyte, used, stored or configured in the Cloud Service during each month during the measurement period specified in Client's Transaction Document.
- Event is a unit of measure by which the Cloud Service can be obtained. An Event is an occurrence of a specific event that is processed by or related to the use of the Cloud Service. Sufficient entitlements must be obtained to cover every Event during the measurement period specified in Client's Transaction Document.
- Virtual Processor Core is a unit of measure by which the Cloud Service can be obtained. A Virtual Processor Core is a standard capacity, virtualized processor that is assigned to the Cloud Service. Sufficient entitlements must be obtained for each Virtual Processor Core available to or managed by the Cloud Service during the measurement period specified in Client's Transaction Document.

5.2 Remote Services Charges

A remote service charge will be billed at the rate specified in the Transaction Document for such remote service and will expire 90 days from purchase regardless of whether the remote service has been used.

5.3 Billing Frequency

Based on selected billing frequency, IBM will invoice Client the charges due at the beginning of the billing frequency term, except for overage and usage type of charges which will be invoiced in arrears.

6. Term and Renewal Options

The term of the Cloud Service begins on the date IBM notifies Client of their access to the Cloud Service, as documented in the PoE. The PoE will specify whether the Cloud Service renews automatically, proceeds on a continuous use basis, or terminates at the end of the term.

For automatic renewal, unless Client provides written notice not to renew at least 90 days prior to the term expiration date, the Cloud Service will automatically renew for the term specified in the PoE. Renewals are subject to an annual price increase as specified in a quote. In the event the automatic renewal is after receipt of an IBM notice of a withdrawal of the Cloud Service, the renewal term will end the earlier of the end of the current renewal term or the announced withdrawal date.

For continuous use, the Cloud Service will continue to be available on a month to month basis until Client provides 90 days written notice of termination. The Cloud Service will remain available to the end of the calendar month after such 90 day period.

7. Additional Terms

7.1 General

Client may not use Cloud Services, alone or in combination with other services or products, in support of any of the following high risk activities: design, construction, control, or maintenance of nuclear facilities, mass transit systems, air traffic control systems, automotive control systems, weapons systems, or aircraft navigation or communications, or any other activity where failure of the Cloud Service could give rise to a material threat of death or serious personal injury.

7.2 Enabling Software

The Cloud Service requires the use of enabling software that Client downloads to Client systems to facilitate use of the Cloud Service. Client may use enabling software only in connection with use of the Cloud Service. Enabling software is provided to Client under following terms:

Enabling Software	Applicable License Terms (if any)
IBM Data Server Driver Package v11.1	http://www-03.ibm.com/software/sla/sladb.nsf/displaylis/A13348EC3D451D5F852580890042140B?OpenDocument
IBM Data Server Manager Enterprise v2.1	http://www-03.ibm.com/software/sla/sladb.nsf/lilookup/F0B7F3B557A73D4C852580830079A197?OpenDocument
IBM Data Studio v4.1	http://www-03.ibm.com/software/sla/sladb.nsf/displaylis/8EE7B373D3B303F085257EC40040DDE0?OpenDocument
IBM Database Conversion Workbench v4.0	http://www-03.ibm.com/software/sla/sladb.nsf/displaylis/1DB8E7F370D1B84E85257FA3004F99BF?OpenDocument
IBM InfoSphere Data Architect v9.1	http://www-03.ibm.com/software/sla/sladb.nsf/displaylis/2BB03C6D51BC9FC385257EC40040DFC5?OpenDocument
IBM InfoSphere DataStage v11.5	http://www-03.ibm.com/software/sla/sladb.nsf/displaylis/B94C06F394B45EA685257ECB007716AB?OpenDocument
IBM InfoSphere DataStage and QualityStage Designer v11.5	http://www-03.ibm.com/software/sla/sladb.nsf/displaylis/C2AAB3F9A435FC1285257ECB00772255?OpenDocument

7.3 Backup

Backups are performed daily for production instances. IBM will retain a backup copy of Client's data for a maximum period of two days. Client is responsible for configuring the Cloud Service security to prohibit individual users from deleting data, and once the data is deleted Client acknowledges and agrees IBM is not obligated to recover the deleted data and, if available, may charge for such effort.

7.4 Cloud Service Expiration

Before expiration or termination of the Cloud Service, Client can use any of the provided reporting or export features of the Cloud Service to extract data. Custom data extraction services are available under a separate agreement.

7.5 Terms applicable to Db2 on Cloud BYOL

Bring your own licenses (BYOL) offerings require the Client to have previously acquired appropriate license entitlements to the associated IBM program identified in the table below. Client's entitlements to the BYOL SaaS cannot exceed Client's entitlements to the associated IBM program, in the ratios specified below.

The BYOL offering does not include Subscription and Support for the associated IBM program. Client represents they have acquired the applicable (1) license entitlements and (2) Subscription and Support for the associated IBM program. During the Subscription Period of the BYOL offering, Client must maintain current Subscription and Support for the IBM program entitlements used in conjunction with the BYOL offering entitlements. In the event either Client's license to use the associated IBM program or Client's Subscription and Support for the associated IBM program is terminated, Client's right to use the BYOL offering will terminate.

The table below outlines the ratio of entitlements for the associated IBM program required for usage of the BYOL offering under the stated corresponding entitlement. Once Client has obtained the BYOL offering and for the duration of Client's use of the BYOL offering, Client's entitlements to the associated IBM program applied to usage of the BYOL offering are suspended and Client may no longer use those entitlements to deploy the associated IBM program (subject to any stated exceptions).

Associated IBM Program	BYOL Offering	Ratio n/m*
IBM Db2 Advanced Enterprise Server Edition	<ul style="list-style-type: none"> a. IBM Db2 on Cloud BYOL 2.8.500 b. IBM Db2 on Cloud BYOL 12.128.1400 c. IBM Db2 on Cloud BYOL 48.1000.10000 d. IBM Db2 on Cloud BYOL Flex e. IBM Db2 on Cloud BYOL High Availability 2.8.500 f. IBM Db2 on Cloud BYOL High Availability 12.128.1400 g. IBM Db2 on Cloud BYOL High Availability 48.1000.10000 h. IBM Db2 on Cloud BYOL High Availability Flex 	<ul style="list-style-type: none"> a. Ratio: 140 PVU / 1 Instance b. Ratio: 840 PVU / 1 Instance c. Ratio: 3360 PVU / 1 Instance d. Ratio: 70 PVU / 1 Instance e. Ratio: 240 PVU / 1 Instance f. Ratio: 940 PVU / 1 Instance g. Ratio: 3460 PVU / 1 Instance h. Ratio: 170 PVU / 1 Instance
IBM Db2 Advanced CEO IBM Db2 Developer Edition	<ul style="list-style-type: none"> a. IBM Db2 on Cloud BYOL 2.8.500 b. IBM Db2 on Cloud BYOL 12.128.1400 c. IBM Db2 on Cloud BYOL 48.1000.10000 d. IBM Db2 on Cloud BYOL Flex e. IBM Db2 on Cloud BYOL High Availability 2.8.500 f. IBM Db2 on Cloud BYOL High Availability 12.128.1400 g. IBM Db2 on Cloud BYOL High Availability 48.1000.10000 h. IBM Db2 on Cloud BYOL High Availability Flex 	Ratio: 1 to N Authorized Users/1 Instance**/**

* "Ratio n/m" means that for every ('n') entitlements of the indicated metric for the associated IBM program, Client may apply those entitlements into the specified number ('m') entitlements of the indicated metric for the BYOL offering.

** Exception for Db2 Advanced CEO Offering and Db2 Developer Edition: Notwithstanding the above terms, where Client applies Authorized User entitlements for either Db2 Advanced CEO Offering or Db2 Developer Edition to the BYOL offering, the sum of Client's Authorized User entitlements, irrespective of quantity, may be applied to 1 (total) Instance entitlement to the BYOL offering, on the following additional terms: (1) Client may continue to use all Authorized User entitlements to Client's deployment of the associated IBM program concurrently with Client's use of the BYOL offering; provided that (2) the BYOL offering may be accessed and used only by those Authorized Users for which Client has entitlements for the associated IBM program.

*** Exception for Db2 Developer Edition: In addition to the above restrictions, where Client applies entitlements for Db2 Developer Edition to the BYOL offering, Client's use of the BYOL offering is limited to Non-Production use only. "Non-Production" means the BYOL offering can only be used as part of Client's internal development and test environment for internal non-production activities, including but not limited to testing, performance tuning, fault diagnosis, internal benchmarking, staging, quality assurance activity and/or developing internally used additions or extensions to the BYOL offering using published application programming interfaces. Client is not authorized to use any part of the Cloud Service for any other purposes without acquiring the appropriate production entitlements.