

Service Description

IBM Db2 Warehouse on Cloud

This Service Description describes the Cloud Service. The applicable order documents provide pricing and additional details about Client's order.

1. Cloud Service

1.1 Offerings

IBM Db2 Warehouse on Cloud offerings provide a managed service that assists in the development of online analytical application processing. The service includes a database that stores user data in a structured format and 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 service includes samples and documentation to help create the online analytical applications.

The Client may select from the following offerings. Offerings in Sections 1.1.1 through 1.1.7 are available exclusively for IBM Cloud. Offerings in Section 1.1.8 are available exclusively for AWS.

1.1.1 IBM Db2 Warehouse on Cloud SMP Offerings

- a. **IBM Db2 Warehouse on Cloud SMP Small**
One database per service Instance on a dedicated server with 64GB RAM.
- b. **IBM Db2 Warehouse on Cloud SMP Medium**
One database per service Instance on a dedicated bare metal server with 256GB RAM.
- c. **IBM Db2 Warehouse on Cloud SMP Large**
One database per service Instance on a dedicated bare metal server with 256GB RAM.

1.1.2 IBM Db2 Warehouse on Cloud MPP Offerings

IBM Db2 Warehouse on Cloud MPP offerings provide a clustered configuration of the IBM Db2 Warehouse on Cloud service, comprising a set of independent database nodes managed together as a single system. Database operations are parallel processed across all the database nodes. IBM will configure the associated nodes into one cluster.

- a. **IBM Db2 Warehouse on Cloud MPP Small**
One database per service Instance on a dedicated cluster with 256GB RAM per node.
- b. **IBM Db2 Warehouse on Cloud MPP Large**
One database per service Instance on a dedicated cluster with 1.5TB RAM per node.

1.1.3 IBM Db2 Warehouse on Cloud Flex Offerings

The Flex offerings allow users to scale compute cores and storage capacity independently and manage database backups through the service's console. Core, memory and/or storage values are subject to maximum scalability limits described in the Cloud Service catalogue page or other documentation.

- a. **IBM Db2 Warehouse on Cloud Flex One**
The base Instance provides one database with 6 virtual processor cores (VPCs) and 40GB disk storage.
- b. **IBM Db2 Warehouse on Cloud Flex One Paygo Additional Storage**
One storage increment consisting of 10GB. Available as a monthly subscription or through Pay Per Use hourly billing.
- c. **IBM Db2 Warehouse on Cloud Flex One Paygo Additional Compute**
One compute increment consisting of 1 VPC. Available as a monthly subscription or through Pay Per Use hourly billing.

- d. **IBM Db2 Warehouse on Cloud Flex**
One database per service Instance on a dedicated cluster. The database server is allocated 16 Cores and 960GB storage.
- e. **IBM Db2 Warehouse on Cloud Flex Additional Storage**
One storage increment consisting of 240GB. Available as a monthly subscription or through Pay Per Use hourly billing.
- f. **IBM Db2 Warehouse on Cloud Flex Additional Compute**
One compute increment consisting of 16 Cores. Available as a monthly subscription or through Pay Per Use hourly billing.
- g. **IBM Db2 Warehouse on Cloud Flex Performance**
One database per service Instance on a dedicated cluster. The database server is allocated 48 Cores and 2.4TB storage.
- h. **IBM Db2 Warehouse on Cloud Flex Performance Additional Storage**
One storage increment consisting of 2.4TB. Available as a monthly subscription or through Pay Per Use hourly billing.
- i. **IBM Db2 Warehouse on Cloud Flex Performance Additional Compute**
One compute increment consisting of 24 Cores. Available as a monthly subscription or through Pay Per Use hourly billing.

1.1.4 IBM Db2 Warehouse on Cloud BYOL Offerings

Db2 Warehouse on Cloud Bring Your Own License (BYOL) offerings include the same configurations as the Db2 Warehouse on Cloud offerings above, but the Client must provide on premises licenses for use in the Cloud Service. See Section 5.2, "Terms applicable to Db2 Warehouse on Cloud BYOL", for more details.

- a. **IBM Db2 Warehouse on Cloud BYOL SMP Medium**
One database per service Instance on a dedicated bare metal server with 256GB RAM.
- b. **IBM Db2 Warehouse on Cloud BYOL SMP Large**
One database per service Instance on a dedicated bare metal server with 256GB RAM.
- c. **IBM Db2 Warehouse on Cloud MPP Small BYOL**
One database per service Instance on a dedicated cluster with 256GB RAM per node.
- d. **IBM Db2 Warehouse on Cloud BYOL Flex Performance**
One database per service Instance on a dedicated cluster. The database server is allocated 48 Cores, 864GB RAM, 2.4TB storage.
- e. **IBM Db2 Warehouse on Cloud BYOL Flex Performance Additional Storage**
One 2.4TB storage increment. This service is available as a monthly subscription or through Pay Per Use hourly billing.
- f. **IBM Db2 Warehouse on Cloud BYOL Flex Performance Additional Compute**
One compute increment consisting of 24 Cores, 432GB RAM. This service is available as a monthly subscription or through Pay Per Use hourly billing.

1.1.5 IBM Db2 Warehouse on Cloud Hybrid Plans

The IBM Db2 Warehouse on Cloud Hybrid Flex and Hybrid Flex Performance plans are only applicable to Clients who have purchased the IBM Hybrid Data Management Platform subscription offering.

The IBM Db2 Warehouse on Cloud Hybrid Flex plan provides one SQL database on a dedicated cluster. For each Instance entitlement, the database server includes 16 processor cores, 186 GB RAM, and 960 GB of storage for data and logs, as allocated by Client. Additional compute or storage resources can be applied to scale beyond this base configuration. Charges are specified in the Service Description for the IBM Hybrid Data Management Platform.

The IBM Db2 Warehouse on Cloud Hybrid Flex Performance plan provides one SQL database on a dedicated cluster. For each Instance entitlement, the database server includes 48 processor cores, 864 GB RAM, and 2,400 GB of storage for data and logs, as allocated by Client. Additional compute or storage resources can be applied to scale beyond this base configuration. Charges are specified in the Service Description for the IBM Hybrid Data Management Platform.

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

1.1.6 Db2 Warehouse on Cloud Backup and Restore Offerings

a. IBM Db2 Warehouse on Cloud Additional Backup Capacity

Allows Clients to retain additional backups to achieve custom data retention periods.

b. IBM Db2 Warehouse on Cloud Service Additional Restore Capacity

Provides clients with the ability to restore from an additional backup created using the Db2 Warehouse on Cloud Additional Backup Capacity part described in the previous section.

1.1.7 Db2 Warehouse on Cloud Connectivity Offerings

a. IBM Db2 Warehouse on Cloud Service Endpoint Connectivity

Allows a private 1Gbps connection to the Db2 Warehouse on Cloud service using IBM Cloud Service Endpoint technology.

b. IBM Db2 Warehouse on Cloud Service Endpoint Dedicated Connectivity

Allows a private 10 Gbps connection to the Db2 Warehouse on Cloud service using IBM Cloud Service Endpoint technology.

1.1.8 Db2 Warehouse on Cloud Offerings for AWS

IBM Db2 Warehouse on Cloud Offerings for AWS provide a clustered configuration of the IBM Db2 Warehouse on Cloud service hosted on the third-party AWS platform. The Flex offerings allow users to scale compute cores and storage capacity independently and manage database backups through the service's console. Core, memory and/or storage values are subject to maximum scalability limits described in the Cloud Service catalogue page or other documentation. See Section 6.1, "Terms applicable to Db2 Warehouse on Cloud Offerings for AWS", for more details.

a. IBM Db2 Warehouse on Cloud MPP Small for AWS

One database per service Instance on a dedicated cluster with 244GB RAM per node.

b. IBM Db2 Warehouse on Cloud Flex for AWS

One database per service Instance on a dedicated cluster. The database server is allocated 14 VPCs and 960GB storage. Snapshot backups are taken daily. The last seven snapshot backups are retained.

c. IBM Db2 Warehouse on Cloud Flex for AWS Additional Storage

One 960GB storage increment. Available as a monthly subscription or through Pay Per Use hourly billing

d. IBM Db2 Warehouse on Cloud Flex for AWS Additional Compute

One compute increment consisting of 14 VPCs. This service is available as a monthly subscription or through Pay Per Use hourly billing.

e. IBM Db2 Warehouse on Cloud Flex for AWS Additional Backups

Provides the ability to retain snapshot backups beyond the seven included in the base plan.

f. IBM Db2 Warehouse on Cloud Flex for AWS Data Transfer

Provides the ability to transfer data out from the AWS data center where the Db2 Warehouse on Cloud instance is located.

- g. **IBM Db2 Warehouse on Cloud Flex Performance for AWS**
One database per service Instance on a dedicated cluster. The database server is allocated 48 VPCs and 2400GB storage. Snapshot backups are taken daily. The last seven snapshot backups are retained.
- h. **IBM Db2 Warehouse on Cloud Flex Performance for AWS Additional Storage**
One 2400GB storage increment. Available as a monthly subscription or through Pay Per Use hourly billing.
- i. **IBM Db2 Warehouse on Cloud Flex Performance for AWS Additional Compute**
One compute increment consisting of 24 VPCs. This service is available as a monthly subscription or through Pay Per Use hourly billing
- j. **IBM Db2 Warehouse on Cloud Flex Performance for AWS Additional Backups**
Provides the ability to retain snapshot backups beyond the seven included in the base plan.
- k. **IBM Db2 Warehouse on Cloud Flex Performance for AWS Data Transfer**
Provides the ability to transfer data out from the AWS data center where the Db2 Warehouse on Cloud instance is located.

1.2 Acceleration Services

1.2.1 IBM Db2 Warehouse on Cloud Jump Start

IBM provides up to fifty (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.

1.2.2 IBM Db2 Warehouse on Cloud Accelerator

IBM provides up to fifty (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 upon transaction documents. Services are purchased per Engagement.

2. Data Processing and Protection Data Sheets

IBM's Data Processing Addendum at <http://ibm.com/dpa> (DPA) and the Data Processing and Protection Data Sheet(s) (referred to as data sheet(s) or DPA Exhibit(s)) in the links below provide additional data protection information for the Cloud Services and its options regarding the types of Content that may be processed, the processing activities involved, the data protection features, and specifics on retention and return of Content. The DPA applies to personal data contained in Content, if and to the extent i) the European General Data Protection Regulation (EU/2016/679) (GDPR); or ii) other data protection laws identified at <http://www.ibm.com/dpa/dpl> apply.

Db2 Warehouse on Cloud

<https://www.ibm.com/software/reports/compatibility/clarity-reports/report/html/softwareReqsForProduct?deliverableId=1411673289475>

Db2 Warehouse on Cloud on AWS

<https://www.ibm.com/software/reports/compatibility/clarity-reports/report/html/softwareReqsForProduct?deliverableId=58EE4EA00CB711E6B4A6CF14C90731CD>

3. Service Levels and Technical Support

3.1 Service Level Agreement

IBM provides Client with the following availability service level agreement (SLA). IBM will apply the highest applicable compensation based on the cumulative availability of the Cloud Service as shown in the table below. The availability percentage is calculated as the total number of minutes in a contracted month, minus the total number of minutes of Service Down in the contracted month, divided by the total number of minutes in the contracted month. The Service Down definition, the claim process and how to

contact IBM regarding service availability issues are in IBM's Cloud Service support handbook at https://www.ibm.com/software/support/saas_support_overview.html.

Availability	Credit (% of monthly subscription fee*)
Less than 99.9%	2%
Less than 99.0%	5%
Less than 95.0%	10%

* The subscription fee is the contracted price for the month which is subject to the claim.

3.2 Technical Support

Technical support for the Cloud Service, including support contact details, severity levels, support hours of availability, response times, and other support information and processes, is found by selecting the Cloud Service in the IBM support guide available at <https://www.ibm.com/support/home/pages/support-guide/>.

4. Charges

4.1 Charge Metrics

The charge metric(s) for the Cloud Service are specified in the Transaction Document.

The following charge metrics apply to this Cloud Service:

- Engagement is a professional or training service related to the Cloud Services.
- Instance is each access to a specific configuration of the Cloud Services.
- Virtual Processor Core is a standard capacity, virtualized processor that is available to or managed by the Cloud Services.
- Virtual Processor Core-Hour is each hour of use, rounded up to the nearest hours for a standard capacity, virtualized processor that is assigned, available to or managed by to the Cloud Services.
- Gigabyte (GB) is defined as 2 to the 30th power bytes of data processed by, used, stored or configured in the Cloud Services.
- Gigabyte-Month is the monthly average number of Gigabytes, rounded up to the nearest Gigabyte, used, stored or configured in the Cloud Services.

4.2 Remote Services Charges

A remote service will expire 90 days from purchase regardless of whether the remote service has been used.

5. Additional Terms

For Cloud Service Agreements (or equivalent base cloud agreements) executed prior to January 1, 2019, the terms available at <https://www.ibm.com/acs> apply.

5.1 Enabling Software

The Cloud Service contains the following Enabling Software:

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

Enabling Software	Applicable License Terms (if any)
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

5.2 Terms Applicable to IBM Db2 Warehouse on Cloud BYOL offerings

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 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.

Client may continue to use the entitlements to the associated IBM program that are applied to usage of the BYOL offering to deploy the associated IBM program concurrently with Client's use of the BYOL offering for the following period (the "Concurrent Usage period"): for Clients with a subscription term of one (1) year, no longer than ninety (90) days after the start of the Client's initial subscription to the BYOL offering; for Clients with a subscription term of greater than one (1) year, no longer than one (1) year after the start of the Client's initial subscription to the BYOL offering. After the end of the Concurrent Usage period, 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 Warehouse on Cloud BYOL SMP Medium b. IBM Db2 Warehouse on Cloud BYOL SMP Large c. IBM Db2 Warehouse on Cloud MPP Small BYOL d. IBM Db2 Warehouse on Cloud BYOL Flex Performance 	<ul style="list-style-type: none"> a. Ratio: 1260 PVU/1 Instance b. Ratio: 1260 PVU/1 Instance c. Ratio: 980 PVU/1 Instance d. Ratio: 3360 PVU / 1 Instance
IBM Db2 Advanced CEO IBM Db2 Developer Edition	<ul style="list-style-type: none"> • IBM Db2 Warehouse on Cloud BYOL SMP Medium • IBM Db2 Warehouse on Cloud BYOL SMP Large • IBM Db2 Warehouse on Cloud MPP Small BYOL • IBM Db2 Warehouse on Cloud BYOL Flex Performance 	Ratio: 1 to N Authorized Users/1 Instance**/**

Associated IBM Program	BYOL Offering	Ratio n/m*
IBM Hybrid Data Management Platform On Premise	a. IBM Db2 Warehouse on Cloud BYOL SMP Medium	a. Ratio: 1,106,280 Flexpoints/1 Instance
	b. IBM Db2 Warehouse on Cloud BYOL SMP Large	b. Ratio: 1,106,280 Flexpoints/1 Instance
	c. IBM Db2 Warehouse on Cloud MPP Small BYOL	c. Ratio: 860,440 Flexpoints/1 Instance
	d. IBM Db2 Warehouse on Cloud BYOL Flex Performance	d. Ratio: 2,950,080 Flexpoints/ 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.

5.3 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 Warehouse 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 can 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.

6. Overriding Terms

6.1 Terms Applicable to Db2 Warehouse on Cloud Offerings for AWS

The following prevails over anything to the contrary in the base Cloud Service terms between the parties.

If Client's Cloud Service entitlement is specified as "for AWS", the following terms apply:

The Cloud Service application layer and Client's data and content are hosted on a third-party cloud services infrastructure and platform not managed by IBM. The Cloud Service infrastructure, certain

aspects of the Cloud Service platform, and related services, including: data center, servers, storage and network; application and data backup; firewall and threat detection; and APIs for application deployment, monitoring and operation (collectively, the "Third Party Cloud Platform Services") are hosted and managed by the third-party provider. Accordingly, notwithstanding anything in this Service Description or the base services agreement under which this Cloud Service is provided (e.g., the IBM Cloud Services Agreement) (the "Base Agreement"):

- a. If the provider of the Third Party Cloud Platform Services notifies IBM that it has withdrawn or terminated its services or IBM's or Client's access to such services, IBM may (i) provide Client access to a functionally-equivalent IBM-hosted Cloud Service offering; or (ii) terminate the Cloud Service immediately upon the effective date of such termination by the third party provider by providing notice of termination to Client.
- b. IBM makes no warranties or conditions, express or implied, and IBM will have no liability to Client, regarding the Third- Party Cloud Platform Services or to the Cloud Service to the extent dependent on the Third- Party Cloud Platform Services.

6.2 Content and Data Protection for Healthcare Information

The following prevails over anything to the contrary in the Data Processing and Protection Data Sheet terms between the parties

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:

Only the following Db2 Warehouse on Cloud offerings are eligible to be provisioned for implementation of the controls required under HIPAA Privacy and Security Rule for use with Health Data:

- IBM Db2 Warehouse on Cloud SMP Medium
- IBM Db2 Warehouse on Cloud SMP Large
- IBM Db2 Warehouse on Cloud MPP Small
- IBM Db2 Warehouse on Cloud MPP Large
- IBM Db2 Warehouse on Cloud Flex
- IBM Db2 Warehouse on Cloud Flex Performance
- IBM Db2 Warehouse on Cloud Hybrid Flex
- IBM Db2 Warehouse on Cloud Hybrid Flex Performance

The above listed offerings are 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.

In no event shall the Cloud Service be used for processing Health Data as a health care clearinghouse within the meaning of HIPAA.