IBM Cloud

This Service Description describes Cloud Services, including non-IBM services, available to Client from the IBM Cloud. Client means the contracting party and its authorized users and recipients of the Cloud Service.

1. Cloud Services

IBM Cloud allows Client to deploy selected services, and Content, including Client applications and data, within IBM's public cloud environment. IBM Cloud also enables Client to implement hybrid clouds with dedicated and local offerings, which allow Client to deploy selected services in a dedicated environment or directly on Client's own local infrastructure.

Cloud Services are self-managed by Client. Client is responsible for selection of data centers and availability zones for the deployment, configuration, and management of services (including security, backup, failover, restore, and monitoring), which Client determines are necessary to meet Client's requirements and applicable laws, including data protection and other regulatory requirements for its workloads and all Content.

1.1 IBM Cloud UI

IBM Cloud user interfaces (UI) consist of on-line portals, mobile apps, APIs, command line interfaces, or, where available, assisted ordering (Client order placement via IBM sales support staff). The IBM Cloud UI, support, and other information may be presented only in English, and the English version governs any conflict with a translation. Client is responsible for actions of Client's authorized users, including their use and associated charges for such use. Client is responsible for saving, maintaining, and protecting all access keys generated for each Cloud Service.

1.2 Cloud Service Use

Services offerings within IBM Cloud may have additional terms, such as service level, specific data processing and protection provisions, or identification of enabling software. Such terms are provided in an additional Service Description (Additional SD) available in the IBM Cloud UI catalog. Where terms in an Additional SD are inconsistent with terms in this base IBM Cloud Service Description, the Additional SD terms shall override the base SD terms.

IBM will provide Client at least 30 days' notice of any changes to this Service Description, or the withdrawal of a particular service. Continued use of the Cloud Services after the effective date constitutes Client's acceptance of any changed terms. IBM may enable Client to continue to use existing instances of a withdrawn service during a transition period as set forth in the Continued availability for services page of the IBM Cloud documentation.

If IBM disables or modifies an API, IBM will use commercially reasonable efforts to provide 1) at least 30 days advance notice of such change and 2) continued support for prior versions of the API for 12 months. Both above mentioned terms apply unless there are operational, legal, or security risks or burdens. Client agrees IBM may publicly refer to Client as a subscriber to IBM Cloud in a publicity or marketing communication.

1.2.1 Third Party Services

IBM may make available non-IBM services provided by the third party service providers under that provider's agreement terms as disclosed in the IBM Cloud UI or via a link to the provider's website. IBM is not a party to such agreements and is not responsible for the provision of or support for the third party services, even if IBM invoices for them. Client's deployment and use of the Cloud Services constitutes Client's agreement with any additional or third party terms. Client should review the additional or third party terms before placing an order or deploying the service.
Certain Cloud Services require or allow the Client to use IBM-provided third party software on the condition that Client has separately acquired proper license entitlements. By provisioning such Cloud Services, Client represents it has and will maintain all required licenses from the third party.

For Microsoft products used on shared servers using Client’s separately acquired license entitlements, Client must follow Microsoft’s procedures and execute Microsoft’s "Mobility Verification Form”. For further details see the Microsoft License Mobility Verification Guide.

1.3 Setup and Maintenance

For Cloud Services in the public environment, IBM will maintain and update public instances of the Cloud Services on a regular basis during scheduled maintenance windows as published in support documentation available from the IBM Cloud UI. For local environments offering, Client provides a local cloud infrastructure on Client’s computers in conformance with the requirements specified in an Additional SD or provided at https://console.bluemix.net/docs/local/index.html#localinfra, which may be updated by IBM from time to time. Client agrees to provide IBM complete access to and control over the required cloud infrastructure during the term of the Cloud Service, except as Client may need to retain access to perform mandatory maintenance and support activities on the infrastructure as described in such requirements. For dedicated and local environment services offerings, IBM will deploy software updates to such environments as scheduled with appropriate advance notice to Client. IBM’s goal with such updates is to keep such environments reasonably current with the public instances as described for Dedicated and Local and in the relevant Additional SD, as may be updated by IBM from time to time.

1.4 Network Access

Cloud Services may connect to the IBM Cloud private network, the public network and IBM’s internal administrative network. Also, virtual and bare metal servers are assigned to a Client dedicated private VLAN. Client may be able to disable public network access to services as described in documentation (available in the IBM Cloud UI). The private network enables a VPN connection for administrative access, intra-application communications, communications from different points of delivery/data centers, and for access to shared Infrastructure Service. The administrative VPN enables Client to administer and manage ordered services, and to upload, download, and manage content.

Client has no ownership or transfer rights to any IP address assigned to Client and may not use IP addresses or VLANs not assigned to Client or approved by IBM. The IP Address Policy (available at https://console.bluemix.net/docs/overview/terms-of-use/notices.html#ip_address_policy) governs use and provisioning of IP addresses, including IP addresses Client provides. If a physical or virtual server instance is suspended, depending on the violation, public network or private network access may be disabled until resolution of the violation. Temporary access using the private network VLAN to remedy a violation may be available. Upon cancellation of Cloud Services using any IBM-provided IP address, Client must relinquish use of such addresses, including directing the DNS for Client’s domain names away from the cancelled Cloud Services.

For dedicated environments, Client authorized users may access the environment through a secure VPN. Client is responsible for providing VPN infrastructure to connect to the IBM data center to access IBM’s VPN.

2. Content and Data Protection

The Data Processing and Protection Data Sheet (Data Sheet) provides information on the type of Content processed, processing activities, data protection features, and retention and return of Content. Additional details, including Client responsibilities, if any, are in this section or may be in an Additional SD. There may be more than one Data Sheet applicable to Client’s use of the Cloud Services based upon services and options selected by Client.

Data Sheets for each Cloud Service are made available through the IBM Cloud UI or the Additional SDs and 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. IBM may publish modified Data Sheet(s), which 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.
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 potential failure to meet data protection or other legal requirements regarding Content. For example, Client must notify IBM in advance before it uses any Cloud Service to process or store Health Data (health information subject to government regulations, such as HIPAA), identifying the specific instances of the Cloud Service to be used to process such data, and IBM agrees that appropriate supplementary terms (such as a Business Associate Agreement) are executed.

IBM's Data Processing Addendum (DPA) applies and is included 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 Sheets for this Cloud Service will serve as the DPA Exhibit.

For payment card data (PCI-regulated Content), IBM is responsible only to the extent of physical security of the underlying computing environment and to specified IBM system authorizations. Client is responsible to determine if PCI DSS requirements apply to Client's or its end users' use of the Cloud Service and implement any additional measures necessary to meet such requirements.

Access to the IBM Cloud UI may be suspended at any time for unauthorized access or suspected misuse. Client must promptly report any security concerns, lost or stolen account information, or unauthorized access by submitting a support ticket.

2.1 EU Supported Cloud

If Client enables EU Support for its IBM Cloud account, and deploys an EU Supported Cloud Service in an EU Support eligible region, the following additional data access controls apply. Any required IBM access to Content will be privileged access restricted to authorized EU-based personnel only. If non-EU based personnel require temporary access, such access will be provided only if approved and monitored by authorized EU-based personnel in accordance with IBM's internal privileged user monitoring and auditing program.

For dedicated offerings subject to EU Support, any such privileged access by non-EU based personnel will also require approval by Client, Client will be notified when such temporary access is revoked, and access logs will be made available upon request. For purposes of any service level agreement, downtime excludes the time between IBM's request for access for non-EU based personnel to resolve an outage and when Client approves such access.

3. Service Level Agreements

IBM provides service level agreements (SLAs) for IBM-branded Cloud Services.

SLAs are available only if Client is compliant with the Agreement terms and do not apply to any third party including Client's end users. SLAs do not apply to beta, experimental, or no-charge Cloud Services. SLAs are not a warranty and are Client's exclusive remedy for IBM's failure to meet a specified service level.

IBM will validate SLA claims based upon information provided by Client and IBM system records. IBM will provide IBM Cloud UI or other notice of approved credits. IBM's reasonable determination of a credit is final. Client agrees to continue to make payment in full for Cloud Services while an SLA claim is being reviewed. Credits may not reduce payments due for a service below zero for any billing period.

3.1 Exclusions

No credits will be due for failure to meet an SLA because of problems with: Client or community provided content, technology, designs, or instructions; non-IBM build-packs; unsupported system configurations and platforms; Client infrastructure failures, including network, hardware, facility, or power; Client system administration actions, commands, or file transfers; Client errors or failures to provide needed information or access to resolve an outage; Client-caused security incidents or Client security testing; or other causes beyond IBM's reasonable control.

For local environments, even though the Cloud Service is designed and deployed to survive most network or hardware failures, examples of failures or events that could cause an interruption in the Cloud Service including, but not limited to: network performance slow down; switch failure; data center power interruption; and disk/memory failure. For local environments, outages caused by these failures or events and any recovery time that would be necessary to bring the entire local environment Cloud Service back to full operation are excluded from downtime.
3.2 Availability SLAs

Except for infrastructure services described in section 3.3 below, the following SLA applies to Cloud services.

Calculation of availability SLAs do not include downtime or failures related to the specified exclusions, IBM Cloud UI unavailability, or time to reload, configure, enable, or access content or include other services indirectly affected by an outage.

Downtime is measured as the total accrued minutes Client is unable to connect to any of its service instances, measured from the time Client reports an outage event starting until the time at least one of the affected instances is available for use as validated by IBM system records. Availability percentage, is calculated as the total number of minutes in a contracted month minus the total number of downtime minutes in that month divided by the total number of minutes in that month.

IBM provides a 99.95% availability SLA for: i) Cloud Services in the public environment that are defined as and configured for high availability (as described in the catalog page details for each service) or ii) Cloud Services provisioned across multiple dedicated or local environments in geographically separated data centers. In addition, IBM provides a 99.5% availability service level for multiple instances of a Platform Service provisioned within a single dedicated or local environment.

Client is eligible for a credit as follows:

<table>
<thead>
<tr>
<th>Monthly Availability Service Level</th>
<th>Other Environments</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Availability Public Environment or Multiple Dedicated/Local Environments</td>
<td>&lt; 99.95%</td>
<td>&lt; 99.5%</td>
</tr>
<tr>
<td></td>
<td>&lt; 99.90%</td>
<td>&lt; 99.0%</td>
</tr>
</tbody>
</table>

Client must submit an SLA claim by using the form at [http://ibm.biz/bluemixsupport](http://ibm.biz/bluemixsupport) within 60 days after the end of the contracted month that the service level was missed, providing sufficient information to identify the affected service, error messages, and other information necessary to validate the claim, referencing IBM support tickets, as applicable. The credit will be the highest applicable compensation based on the cumulative availability of the affected service during a contracted month and calculated using the monthly charges for such affected service. Credits cannot exceed 25% of such monthly charge.

3.3 Infrastructure Services SLAs

Infrastructure services are bare metal and virtual servers, networking, storage, and security services. (Search IBM Cloud catalog with the tag "iaas" to get a complete list of infrastructure services. The following SLA applies.

Downtime is the total accrued minutes a Client-identified infrastructure service is unavailable due to a service disruption based on an outage type listed below, as measured from the time of a validated outage affecting the identified service until the time such service is available, as validated by IBM support or system records. Downtime does not include time for scheduled or announced maintenance.

For each 30 continuous minute period of Downtime, Client will receive a credit in the amount of 5% of the monthly charges for the identified services directly impacted by the outage. Any period during which Downtime is less than 30 continuous minutes will not be eligible for credit. Downtime for different outage types may not be combined to meet this calculation.

<table>
<thead>
<tr>
<th>Outage Type</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Network</td>
<td></td>
</tr>
<tr>
<td>Private Network</td>
<td></td>
</tr>
<tr>
<td>Redundant Infrastructure Power and HVAC</td>
<td></td>
</tr>
</tbody>
</table>

3.3.1 Infrastructure Hardware Replacement and Upgrade SLA

IBM will use reasonable efforts to minimize downtime when replacing failed hardware and hardware components or performing a scheduled hardware upgrade. IBM will provide the specified credit:

- for hardware replacement, except as noted below, based on the time to replace, from the time IBM verifies a Client reported hardware failure;
• for planned hardware upgrades, based on the total downtime of the service receiving the upgrade.
Service level time periods exclude any time required to reload the operating system or applications or time performance may be degraded.
For failure to meet a specified service level time period, Client will be eligible for a credit based on the monthly charge for the service affected by the hardware replacement or upgrade, as follows:

<table>
<thead>
<tr>
<th>Service Level Time Period</th>
<th>Credit Percent *</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 2 hours</td>
<td>none</td>
</tr>
<tr>
<td>&gt; 2 hours</td>
<td>20%</td>
</tr>
<tr>
<td>&gt; 6 hours</td>
<td>40%</td>
</tr>
<tr>
<td>&gt; 10 hours</td>
<td>60%</td>
</tr>
<tr>
<td>&gt; 14 hours</td>
<td>80%</td>
</tr>
<tr>
<td>&gt; 18 hours</td>
<td>100%</td>
</tr>
</tbody>
</table>

* For POWER8 servers, the service level does not apply; IBM will use commercially reasonable efforts to replace a failed POWER8 server, and there is no credit for failure to meet the above service levels.

3.3.2 SLA Claims for Infrastructure Services
Client's must submit an SLA claim ticket for an Infrastructure Service in the Cloud UI portal within 60 days following the end of the event that is subject of the claim. The ticket must identify the affected service. For infrastructure availability, the claim must include IP address, dates and times of the outage period, any error messages received, contact information, and a full description of the service loss, including logs, if applicable.

4. Technical Support
IBM provides basic level support at no additional charge for the Cloud Services. Client can select fee-based technical support offerings that provide additional support benefits. Advanced support is included as part of a dedicated or local offering and for services executed within those environments.

Client may submit a support ticket describing an issue in accordance with the applicable support policy procedures. The support policies for Platform and Infrastructure Services are available in the IBM Cloud UI and provide details of available support options, as well as information on access, support business hours, severity classification, and support resources and limitations. IBM uses commercially reasonable efforts to respond to support requests; however, there is no specified response time objective for basic level support.

Unless otherwise agreed in writing, support is available only to Client (and its authorized users) and not to any end users of Client's solutions. Client is solely responsible for providing all customer support and services to its end users.

An online support forum is available at no charge on the IBM Cloud Developer Center or on Stack Overflow. IBM's development and support staff monitors both forums.

5. Charges
Cloud Services will be charged on a pay-as-you-go basis unless Client has an active subscription. Service charges and pricing metrics (the units measured to determine service charges) will be identified in the IBM Cloud UI or may be defined in an Additional SD. The following charging models apply:

- Charges for infrastructure services are generally billed in advance and begin upon acceptance of Client's order.
- Charges for all other services are generally billed in arrears and the term for a service begins when the service is available for use, or for services that need to be configured by IBM based on Client input, when the service would be available for use if Client provides timely input. Charges for dedicated or local offerings are generally billed in advance and will be based on the specified configuration. There are no usage charges for individual services executed within a dedicated or local environment. Components may indicate a specific configured capacity (such as gigabytes or transactions per second). Since actual capacity in practice for any configuration of the Cloud
Service varies depending on many factors, the actual capacity in practice may be more or less than the configured capacity.

- Usage and subscription overage charges are based on actual usage of the specified unit of measure and billed in arrears. Partial usage is rounded up to the next full unit of measure.
- One-time charges for a consulting or technical services and other activities will be billed upon acceptance of an order.

5.1 Subscriptions

A subscription requires a committed usage level over a selected subscription period for eligible services. Subscription periods are divided into 12-month cycles (or if less than 12 months remain in a period, the remaining number of months are a cycle). Usage is deducted from the committed usage level of the current cycle. Usage over and above the committed usage level will be billed as overage and will be billed once the committed usage level for a cycle is consumed. Committed usage not used before the end of the cycle is forfeited.

5.2 Billing

Client will be billed charges each month by billing Client's credit card or, where available, by invoice for payment due by electronic funds transfer, or by such other method as approved by IBM.

By providing credit card information, including relevant personal data, Client agrees IBM can use such information to process payment of charges. Payment of charges will be automatic on the due date. Client is responsible to keep information current to avoid service disruption and a late payment fee of $20 (or equivalent in local currency).

If Client believes a charge to be incorrect, Client must submit a support ticket within 30 calendar days from its due date. A credit will be provided upon validation of an incorrect charge. Client accepts billed charges for Cloud Services if not disputed within such period.

If Client requires specific funding authorization for IBM to invoice charges, such as a purchase order, Client is responsible to provide and keep such authorization timely and current with sufficient funding authorization to cover all orders submitted using Client's account credentials to avoid any service disruptions and late payment fee. Late payment fees are as specified in Client's invoice or Transaction Document.

6. Ordered Services Renewals

6.1 Subscriptions

Subscriptions automatically renew for the same term unless i) the order specifies it does not automatically renew or ii) Client provides 90 days prior notice of its intent not to renew at the end of the subscription term. Client's account will stay open and use will continue on a pay as you go basis until Client cancels all running services and request Account closure.

6.2 Monthly Service Periods and Cancellation of Individual Services

Monthly service periods begin on: i) the first day of each calendar month; or ii) for accounts with an IBM established account billing date, it is that calendar date, or the last day of the month if that date does not exist. To downgrade or cancel a specific infrastructure service, Client must cancel using the IBM Cloud UI at least 24 hours prior to the end of the monthly service period (in time zone GMT-6). A cancelled service can continue to be available until the end of such monthly period and no refund or credits are provided for any unused portion. Untimely notice will result in automatic renew for any other monthly service period. Client is responsible to monitor status of any request to cancel or downgrade a service to ensure it was successful.

7. Suspension and Termination

7.1 Suspension and Termination of Individual Services

IBM reserves the right to suspend or terminate individual Client service instances where necessary to preserve the security and integrity of the IBM Cloud platform.

Cloud Services may be suspended if IBM reasonably determines: i) a security breach exists that affects Client or the IBM infrastructure, network, or its customers; ii) Client's use of the Cloud Services violates
the Agreement terms; or iii) Client's use may subject IBM or a third party service provider to liability. Client agrees to cooperate in any investigation to resolve a suspension. Suspension will only affect the services that caused or were the basis for the suspension.

IBM Cloud documentation may include usage guidelines or limitations to preserve the performance, responsiveness, or integrity of the Cloud Services. Client agrees to comply with such guidelines and understands that use or applications that violate these guidelines may be suspended automatically or by IBM system administrators.

IBM will try to give reasonable advance notice of a suspension and an opportunity to remedy the cause of a suspension, unless immediate suspension is necessary to protect IBM, third party service providers, or other customers from operational, security, or other risk, or is ordered by a court or other judicial body.

For suspended services:

a. Client remains responsible for all charges incurred through a suspension;

b. Client is not entitled to any SLA credits for any period of suspension; and

c. IBM is not liable for any damages or losses Client may incur as a result of loss of access to content during a suspension.

IBM may terminate a Cloud Service if a suspension is not remedied within five business days from the suspension notice (or other reasonable time as may be determined by IBM).

Cloud Services that are unmodified and left running in a non-billable account for 10 or more days may be suspended automatically. Any Cloud Service that Client has deployed but has not used for 30 or more days in a non-billable account may be deleted.

7.2 Account Termination

IBM may terminate Client's account for multiple violations of the Agreement terms or usage guidelines. IBM may close Client's account if no Cloud Services are ordered or remain active during any six month period.

8. General

8.1 Enabling Software

Enabling software may be provided by IBM to facilitate the use of the Cloud Service. Unless other terms are provided in a Service Description, Client may use the enabling software only in connection with use of the Cloud Service. If the enabling software contains sample code, Client has the additional right to make derivative works of the sample code and use them consistent with the above grant. The enabling software is provided subject to the applicable availability SLA, if any, but is otherwise provided AS IS.

8.2 Apple Licensed Applications

The following terms of use apply to any enabling software that runs, or is acquired from the Apple App store to run on, the Apple operating system (iOS). These terms are between Client and IBM and not with Apple. Apple is not responsible for the enabling software or the content thereof and has no obligation to furnish any maintenance or support services with respect to the enabling software.

These terms include the restrictions set forth in the App Store Terms of Service (Usage Rules).

If the enabling software fails to conform to any applicable warranty, Client may notify Apple, and Apple may refund any purchase price for the enabling software to Client; and, to the maximum extent permitted by applicable law, Apple will have no other warranty obligation whatsoever with respect to the enabling software.

Apple is not responsible for addressing any claims Client or a third party may have relating to, or Client’s possession and/or use of, the enabling software, including, but not limited to: (i) product liability claims; (ii) any claim that the enabling software fails to conform to any applicable legal or regulatory requirement; and (iii) claims arising under consumer protection or similar legislation.

Apple is not responsible for any third party claim that the enabling software or Client's possession and use of the enabling software infringes that third party's intellectual property rights.

Submit a support ticket for any questions, complaints or claims with respect to the Apple iOS enabling software.
8.3 Beta Services

Cloud Services provided as a beta or experimental service will be identified as such in the IBM Cloud UI and subject to the following, unless different terms are provided:

- A beta / experimental Cloud Service is provided without warranties of any kind and is provided so that Client may evaluate its functionality.
- A beta service may not be at a level of performance or compatibility of generally available services, is not fully tested, and may not comply with the normal Cloud Service security practices. Such services are not designed for any type of Content that contains personal data or for use in a production environment. Client agrees not to provide or input Content that contains personal data. IBM does not guarantee it will make the beta service or any similar services generally available. If a generally available service is offered, IBM is under no obligation to offer migration capabilities or services.
- Client is responsible to pay any tax, levy, or any other charge associated with Client's use of the beta or experimental service.
- Client may use a beta service for the specified period or until IBM withdraws or terminates it. Client may terminate use of a beta service at any time. Client is responsible to remove content Client wishes to retain prior to expiration or termination of the beta service.
- IBM may suspend, limit use, change, or withdraw a beta service or change these terms without notice and at any time.
- If there are no charges, IBM's entire liability for all claims in the aggregate arising from Client's use of a beta service will not exceed the amount of any actual direct damages up to U.S. $1,000.00 (or equivalent in local currency). If Client provides feedback to IBM or a third party service provider, Client agrees IBM or the third party owns and may use all feedback and suggestions provided.