

Service Description

IBM Decision Optimization on Cloud

This Service Description describes the Cloud Service IBM provides to Client. Client means and includes the company, its authorized users or recipients of the Cloud Service.

1. Cloud Service

The Cloud Service offering provided by IBM is described below. The applicable Quotation and Proof of Entitlement (PoE) are provided as separate Transaction Documents.

The Cloud Service offering includes the following capabilities:

- Solve optimization models without the install, deployment and maintenance burdens of on premise infrastructures
- Drag and drop optimization models to solve and view logs and solution
- Embed optimization capabilities in enterprise applications – REST APIs can be used to automate submission, solve, and retrieve solution and logs for optimization models.
- Supports solving different types of optimization models -
 - Optimization models specified with .lp, .mps, .sav, formats (accompanied with optional .prm file)
 - Optimization models specified with .mod format (accompanied with optional .dat file)
 - Optimization models specified with OPLPROJECT file with a default run configuration file and one or more .mod files (accompanied with optional .dat or .ops file)

1.1 IBM Decision Optimization on Cloud On-Demand Tier 1A

IBM Decision Optimization on Cloud On-Demand Tier 1A allows Clients to solve optimization models on a shared, multi-tenant pool of virtual machines with capacity of 6 cores and 28GB RAM. Limits of maximum upload file-size of 1GB per file and up to 5 optimization models in queue will apply.

1.2 IBM Decision Optimization on Cloud On-Demand Tier 1B

IBM Decision Optimization on Cloud On-Demand Tier 1B allows Clients to solve optimization models on a shared, multi-tenant pool of virtual machines with capacity of 10 cores and 60GB RAM. Limits of maximum upload file-size of 1GB per file and up to 5 optimization models in queue will apply.

1.3 IBM Decision Optimization on Cloud Tier 2A

IBM Decision Optimization on Cloud Tier 2A allows Clients to solve optimization models on a shared, multi-tenant pool of virtual machines with capacity of 6 cores and 28 GB RAM. Limits of maximum upload file-size of 1GB per file and up to 5 optimization models in queue will apply.

1.4 IBM Decision Optimization on Cloud Tier 2B

IBM Decision Optimization on Cloud Tier 2B allows Clients to solve optimization models on a shared, multi-tenant pool of virtual machines with capacity of 10 cores and 60 GB RAM. Limits of maximum upload file-size of 1GB per file and up to 5 optimization models in queue will apply.

1.5 IBM Decision Optimization on Cloud Tier 3A

IBM Decision Optimization on Cloud Tier 3A allows Clients to solve optimization models on a bare-metal machine having specification of 14 cores and 252 GB RAM. Limits of maximum upload file-size of 1GB per file and up to 50 optimization models in queue will apply.

2. Security Description

2.1 Security Policies

IBM has an information security team and maintains privacy and security policies that are communicated to IBM employees. IBM requires annual privacy and security training for personnel. IBM security policies are revalidated annually based on industry practices and IBM business requirements. Security incidents are handled based on comprehensive incident response procedures. IBM maintains physical security

standards designed to limit access to authorized personnel at IBM data centers, including limited and monitored access points. Visitors register upon entering and are escorted while on the premises.

2.2 Access Control

IBM authorized staff use two-factor authentication to an intermediate “gateway” management host. IP Blocking may be utilized to prevent access by known compromised Internet sites and users in U.S. embargoed countries. Access to Client data and transfer of data in or out of the hosting environment is logged. WIFI use is prohibited within the IBM data centers that support this Cloud Service.

The Cloud Service does encrypt content during data transmission over the internet between the Client’s network access point and IBM network.

The Cloud Service does not encrypt content when at rest awaiting data transmission.

2.3 Service Integrity and Availability

Modifications to operating systems, application software, and firewall rules are handled under IBM’s change management process. Changes to firewall rules are reviewed by the IBM security staff before implementation. IBM monitors the data center 24x7. Internal and external vulnerability scanning is conducted regularly by authorized administrators and third party vendors to help detect and resolve potential system security exposures. Malware detection systems (antivirus, intrusion detection, vulnerability scanning, and intrusion prevention) are used in all IBM data centers. IBM’s data center services support a variety of information delivery protocols for transmission of data over public networks. Examples include HTTPS/SFTP/FTPS/S/MIME and site-to-site VPN. Backup data intended for off-site storage is encrypted prior to transport.

2.4 Activity Logging

IBM maintains logs of its activity for systems, applications, data repositories, middleware and network infrastructure devices that are capable of and configured for logging activity. To minimize the possibility of tampering and to enable central analysis, alerting and reporting, activity logging is done in real-time at central log repositories. Data is signed to prevent tampering. Logs are analyzed in real-time and via periodic analysis reports to detect anomalous behavior. Operations staff is alerted to anomalies and contacts a 24x7 on-call security specialist when needed.

2.5 Compliance

This Cloud Service is not US-EU Safe Harbor certified.

IBM performs industry standard SSAE 16 audits (or their equivalent) annually in production data centers for compliance with IBM information security policies. IBM maintains annual SOC II certification for specific SoftLayer data center location(s) used to provide the Cloud Service. IBM’s SOC II review audits the security, availability and process integrity of how SoftLayer data centers operate its physical facilities. The audit report is available to Client and its auditors upon request.

3. Technical Support

Technical support for the Cloud Service is provided via online forums, and an online problem reporting system as described below. Technical support is offered with the Cloud Service and is not available as a separate offering.

More information about hours of availability, online problem reporting systems, and other technical support communication vehicles and processes are described in the IBM Software as a Service Support Handbook.

| Severity | Severity Definition | Response Time Objectives | Response Time Coverage |
|----------|--|--------------------------|------------------------|
| 1 | Critical business impact/service down: Business critical functionality is inoperable or critical interface has failed. This usually applies to a production environment and indicates an inability to access services resulting in a critical impact on operations. This condition requires an immediate solution. | Within 1 hour | 24x7 |
| 2 | Significant business impact: A service feature or function is severely restricted in its use or Client is in jeopardy of | Within 2 business hours | M-F business hours |

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|---|---|-------------------------|--------------------|
| | missing business deadlines. | | |
| 3 | Minor business impact: Indicates the service or functionality is usable and it is not presenting a critical impact on operations. | Within 4 business hours | M-F business hours |
| 4 | Minimal business impact: An inquiry or non-technical request. | Within 1 business day | M-F business hours |

4. Entitlement and Billing Information

4.1 Charge Metrics

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

- a. Hour is a unit of measure by which the Cloud Service can be obtained. Sufficient Hour entitlements must be obtained to cover the total number of whole or partial Hours of the Cloud Service used during the measurement period specified in Client's Proof of Entitlement (PoE) or Transaction Document.
- b. 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 Proof of Entitlement (PoE) or Transaction Document.

4.2 Partial Month Charges

A partial month charge as specified in the Transaction Document may be assessed on a pro-rated basis.

4.3 Overage Charges

If actual usage of the Cloud Service during the measurement period exceeds the entitlement specified in the PoE, Client will be charged for the overage as specified in the Transaction Document. The total number of hours used within the measurement period will be calculated with any partial hours being rounded up to the next full hour.

4.4 On Demand Charges

On-Demand charges, as specified in the Transaction Document, will apply when Client requests activation of the On-Demand part.

The following On-Demand offerings are available on the Hour charge metric: IBM Decision Optimization on Cloud On-Demand Tier 1A and IBM Decision Optimization on Cloud On-Demand Tier 1B. The Client will be billed for the total number of whole or partial Hours used by the Cloud Service during the billing period. The total number of Hours used within the billing period will be calculated with any partial hours being rounded up to the next full hour.

5. Term and Renewal Options

5.1 Term

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. Client may increase their level of use of the Cloud Service during the term by contacting IBM or their IBM Business Partner, and the increase will be confirmed in a Transaction Document.

5.2 Term Renewal Options

The Transaction Document will specify which of the following applies to renewal of the Cloud Service term.

5.2.1 Automatic Renewal

Where renewal is automatic, the Cloud Service will automatically renew for a term specified in the Transaction Document (either a one year term or the same duration as the expiring term) unless Client has provided written termination at least 90 days prior to the term expiration date.

5.2.2 Continuous Billing

Where billing is continuous, Client will continue to have access to the Cloud Service following the end of the term and will be billed for usage on a continuous basis. To discontinue use of the Cloud Service and stop the continuous billing process, Client must provide 90 days written notice of cancellation. Client will be billed for any outstanding access charges through the end of the month of cancellation.

5.2.3 Renewal Required

Where the renewal type is specified as "terminate", the Cloud Service will terminate at the end of the term and Client access will end. To continue use of the Cloud Service beyond the term end date, Client must order a new subscription term.

6. General

Where applicable, taxes are based upon the location(s) receiving the benefit of the Cloud Service. IBM will apply taxes based upon the business address listed in Client's order unless Client provides additional information to IBM. Client is responsible for keeping such information current and providing any changes to IBM.