

Service Description

Weather Company Data Packages

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

1. Cloud Service

The IBM Cloud Service for Weather Company Data Packages (Cloud Service) uses application program interfaces (APIs), and other means where appropriate, that enable Client to receive Data. "Data" means weather data, both historical and forecasted, delivered via the Cloud Service (including without limitation forecasts, maps, alerts, and graphs), as described in this Service Description. Each package also includes appropriate location mapping services which provide information on zip codes, geocodes, cities, districts or provinces and nearby reporting stations.

1.1 Offerings

The Client may select from the following available offerings.

1.1.1 Weather Company Data – Core

This package includes access to the following Data:

Features	Description	Coverage
2-Day Hourly Forecast	Forecasts for next 48 hours starting from the current time.	Worldwide
Daily Forecast	Forecasts for 24-hour periods starting today for the next 3, 5, 7 and 10 days including forecasts for the daytime and nighttime segments (shorter periods return smaller payloads). This forecast includes the forecast narrative text string of up to 256 characters with appropriate units of measure for the location and in the language requested.	Worldwide
Intraday Forecast	Forecasts for 24-hour periods starting today for the next 3, 5, 7 and 10 days including forecasts for the morning, afternoon, evening and overnight segments (shorter periods return smaller payloads). This forecast includes the forecast narrative text string of up to 256 characters with appropriate units of measure for the location and in the language requested.	Worldwide
Site Based Observations	Observed weather data (temperature, wind direction and speed, humidity, pressure, dew point, visibility, and UV Index) as well as a sensible weather phrase and its matching weather icon that are collected from METAR and SYNOP observation devices in the United States.	Worldwide
Time-Series Based Observations	Observed weather data from site-based observation stations for the previous 24 hours.	Worldwide
Weather Alert – Headlines & Details (United States, Canada, Europe)	Government issued (United States, Canada and Europe) alert headlines and details in the language requested. Details include Severe Thunderstorms, Tornadoes, Earthquakes, Floods, etc. Details also include non-weather alerts such as Child Abduction Emergency and Law Enforcement Warnings.	United States, Canada, Japan, Western Europe
Daily Almanac	Daily average and record weather conditions	United States

Features	Description	Coverage
Monthly Almanac	Monthly average and record weather conditions	Worldwide
Current Conditions and Forecast Imagery Layer	These layers feature a detailed set of tile-based raster products derived from observation and forecast data and provides access to our most popular mapping layers pre-rendered with appropriate palettes, ready to be applied to Client's base map. Layers are served as pre-cut 256x256 png tiles, addressed according to a XYZ tile address schema.	Worldwide
Radar & Satellite Layer	Similar to the Current Conditions and forecast imagery layer above, these layers provides selected radar and satellite raster products as well as a combined actual and pseudo radar covering the globe.	Worldwide
Snow Depth	Index of current snow depth updated hourly.	Continental United States

1.1.2 Weather Company Data – Enhanced Forecast & Weather Company Data – Enterprise Enhanced Forecast

This package includes access to the following Data:

Features	Description	Coverage
Precipitation Forecast	The Precipitation Events Forecast API provides a weather forecast for precipitation events (rain, snow, sleet, freezing rain) onset and offset times for 28 time steps over the next 7 hours.	Worldwide
15 Minute Forecast	This API returns forecasted weather in 15 minute increments out to 7 hours.	Worldwide
15-Day Hourly Forecasts	Hourly Forecasts for the next 15 Days starting from the current time.	Worldwide
15 Day Forecast – Gridded & Polygonal	Provides a gridded Forecast on Demand at a 4-km resolution, and includes relevant Temperature, Wind, and Precipitation features. Gridded: provides gridded raster data, typically in tiles of 256x256 pixels at various zoom levels. Polygonal: provides geometric vector data, either a line or a polygon, indicating where meteorological values cross a particular threshold; this data can facilitate statistical analysis.	Worldwide
Aggregated Forecasts	Provides aggregated (minimum, maximum, average) forecast values for day parts in local time. Day parts include morning, afternoon, evening and overnight periods as well as daytime and nighttime periods.	Worldwide
Marine wave and wind forecast	Provides a 10 day forecast of significant marine parameters including wave/swell height, period and direction, and marine winds.	Worldwide

Client is entitled to make up to 500M API calls per month.

1.1.3 Weather Company Data – Enhanced Current Conditions & Weather Company Data – Enterprise Enhanced Current Conditions

This package includes access to the following Data:

Features	Description	Coverage
Currents on Demand (COD)	High resolution, high temporal current conditions, including associated weather phrase and icon as well as past day and month summary rollups.	Worldwide
Current Conditions – Gridded and Polygonal	Provides a gridded Current Conditions on Demand (Currents on Demand) at a 4-km resolution, and includes relevant Temperature, Wind, and Precipitation features. Gridded: provides gridded raster data, typically in tiles of 256x256 pixels at various zoom levels. Polygonal: provides geometric vector data, either a line or a polygon, indicating where meteorological values cross a threshold; this data can facilitate statistical analysis.	Worldwide
Personal Weather Station Observations including Bounding Box & Time Series	Global network of (PWS) Personal Weather Stations, includes a crowd-sourced sensor network of more than 230,000 Weather Stations.	Worldwide

Client is entitled to make up to 500M API calls per month.

1.1.4 Weather Company Data – Severe Weather & Weather Company Data – Enterprise Severe Weather

This package includes access to the following Data:

Features	Description	Coverage
Power Disruption Index	15-day 12-hour forecast indicating the potential for power disruptions due to weather.	Worldwide
Tropical Storm Probability	Probabilistic forecast that the wind speed will exceed specific thresholds in the next 15 days for the Indian, northwestern Pacific, or north Atlantic Oceans indicating maximum probability of a tropical cyclone. This forecast is expressed as a percent value with 80km resolution updated every 12 hours and supports visualization and analytics to create weather image tiles and vectors.	Indian Basin, Northwest Pacific Basin, and North Atlantic Basin
Tropical Storms	Provides information about historical and active storms for the Indian, Pacific, Atlantic and Southern Hemisphere Basins. Information provided includes position and track of recent tropical storms, and current position, projected track and characteristics of active storms.	Global
Storm Reports	Ranked and prioritized text reports of observed severe weather such as wind or hail damage and snow depth that is parsed from National Weather Service (NWS) using Local Storm Report (LSR) or Public Information Service (PNS) bulletins.	United States
StrikeZone*	30-minute lightning intensity forecast expressed as aggregate lightning density in flash per square kilometer refreshed every 5 minutes.	United States

Features	Description	Coverage
HailZone*	30-minute damaging hail swath forecast expressed as aggregate maximum hail size in millimeters refreshed every 5 minutes.	United States, Canada
ShearVision*	1 hour trailing tornado path estimates expressed as rotational shear in hertz refreshed every 2 to 4 minutes.	United States
HailVision*	30 min, 1-hour, 2-hour, 3-hour, 6-hour, and 24-hour trailing maximum hail size estimates expressed in millimeters refreshed every 5 minutes or every hour.	United States, Canada
RainVision*	1-hour, 3-hour, 6-hour, 12-hour and 24-hour trailing accumulated rain estimates expressed in millimeters refreshed every 5 minutes or every hour.	Worldwide
SnowVision*	1-hour, 3-hour, 6-hour, 12-hour and 24-hour trailing accumulated snow estimates expressed in millimeters refreshed every 5 minutes or every hour.	Worldwide
IceVision*	1-hour, 3-hour, 6-hour, 12-hour and 24-hour trailing accumulated ice estimates expressed in millimeters refreshed every 5 minutes or every hour.	United States
Lightning forecast	30 minute lightning density forecast.	Worldwide
Earthquakes	Recent earthquake details including location, depth and magnitude.	Worldwide
Wildfires	Active fire perimeters and related information including detection, intensity smoke and other fire parameters.	Continental United States

* Note: This forecast or estimate has a resolution of 1 KM and supports visualization and analytics to create weather image tiles and vectors.

Client is entitled to make up to 500M API calls per month.

1.1.5 Weather Company Data – Lifestyle Indices & Weather Company Data – Enterprise Lifestyle Indices

This package includes access to the following Data:

Features	Description	Coverage
Air Quality	Data modeled from multiple air quality sensor networks. Includes category, index and concentration for principal pollutants: Ozone, PM2.5, PM10, Carbon Monoxide, Nitrogen Dioxide and Sulfur Dioxide.	Worldwide
Pollen forecast	Indexed forecast of grass, ragweed and tree pollen.	Worldwide
Pollen Observations	Historical and daily observations from available allergists offices on weekdays excluding holidays. Includes pollen count and index for all major pollen categories: Tree, Grass, Weed and Mold.	United States
Flu Outbreak Observations	Flu activity levels distributed weekly during flu season via the CDC. The data includes flu level descriptions and colors for available states and territorial geos.	United States
Tides	The U.S. Tides API returns marine tide predictions for up to the next 30 days for coastal locations in United States and its territories.	United States

Features	Description	Coverage
Aches and Pains	The Aches and Pains index indicates the weather's influence on an individual's potential to feel aches and pains.	Worldwide
Breathing	The Breathing index indicates weather's influence on the ability to breath for respiratory-sensitive individuals.	Worldwide
Dry Skin	The Dry Skin index provides indices indicating likelihood that a person will experience dry skin based on weather conditions.	Worldwide
Frizz	The Frizz Index provides indices indicating likelihood that a person will experience frizzy hair based on weather conditions.	Worldwide
Frost Potential	The Frost Potential Index provides an index indicating likelihood of Frost.	Worldwide
Golf	The Golf Index provides an indices of golfing weather conditions. This index is also available as an hourly value out to 360 hours.	Worldwide
Heating and Cooling	The Heating and Cooling index provides indices describing the amount of heating/cooling that is required to maintain a comfortable indoor temperature, based on weather conditions.	Worldwide
Leisure Travel	The Leisure Travel index provides indices of outdoor travel / sightseeing conditions due to weather. This index is also available as an hourly value out to 360 hours.	Worldwide
Running Weather	The Running Weather Index provides indices of outdoor running conditions due to weather – for short, and long runs. This index is also available as an hourly value out to 360 hours.	Worldwide
Ski	The Ski Index provides indices of ski conditions due to weather.	Worldwide
Static Electricity	The Static Electricity Index provides indices indicating the potential for static electricity based on weather conditions.	Worldwide

Client is entitled to make up to 500M API calls per month.

1.1.6 Weather Company Data Cleaned Historical – Global 8km Precipitation

This package includes access to the following Data:

Features	Description	Coverage
Global 8km Precipitation	Weather Company Data Packages Cleaned Historical – Global 8km Precipitation provides historical rain information for the globe at 8km resolution with data available since December 1, 2015 derived from satellite data.	Worldwide

The Cloud Service's API call volume limit for this package is a maximum of 250 API calls per minute. Client's access to the Cleaned Historical API will be disabled once the Client's annual entitlement is exceeded.

1.1.7 Weather Company Data Cleaned Historical – United States 1km Precipitation

This package includes access to the following Data:

Features	Description	Coverage
United States 1km Precipitation	Weather Company Data Packages Cleaned Historical – United States 1km Precipitation provides historical rain information for the United States at 1km resolution with data available since June 1, 2015 derived from the MRMS system.	United States

The Cloud Service's API call volume limit for this package is a maximum of 250 API calls per minute. Client's access to the Cleaned Historical API will be disabled once the Client's annual entitlement is exceeded.

1.1.8 Weather Company Data Cleaned Historical – U.S. 4km Precipitation

This package includes access to the following Data:

Features	Description	Coverage
United States 4km Precipitation	Weather Company Data Packages Cleaned Historical – United States 4km Precipitation historical rain information for the United States at 4km resolution with data available since January 1, 2002 derived from the Stage 4 database.	United States

The Cloud Service's API call volume limit for this package is a maximum of 250 API calls per minute. Client's access to the Cleaned Historical API will be disabled once the Client's annual entitlement is exceeded.

1.1.9 Weather Company Data – Cleaned Historical

This package includes access to the following Data:

Features	Description	Coverage
Cleaned Historical	The Cleaned Historical package provides access to a variety of observed and derived historical meteorological parameters including temperature, dewpoint, air pressure, wind speed and direction, relative humidity, degree day variables, as well as a set of specialized variables including soil moisture, sea level pressure, wind gust, cloud cover and others. Variables are available by latitude/longitude or specific location code.	Worldwide

The Cloud Service's API call volume limit for this package is a maximum of 250 API calls per minute. Client's access to the Cleaned Historical API will be disabled once the Client's annual entitlement is exceeded.

1.1.10 Weather Company Data – Cleaned Historical Bulk Delivery

This package includes access to the following Data:

Features	Description	Coverage
Cleaned Historical Bulk Delivery	The Cleaned Historical Bulk Delivery package provides non-interactive delivery of a prescribed set of historical data specified by the Client and delivered as a one-time data package. It can provide a variety of observed and derived historical meteorological parameters including temperature, dewpoint, air pressure, wind speed and direction, relative humidity, degree day variables, as well as a set of specialized variables including soil moisture, sea level pressure, wind gust, cloud cover and others. Variables are available by latitude/longitude or specific location code.	Worldwide

1.1.11 Weather Company Data – Seasonal Forecast & Weather Company Data – Enterprise Seasonal Forecast

This package includes access to the following Data:

Features	Description	Coverage
Seasonal Forecast	The Seasonal Forecast provides anomaly and forecasted actual values for temperature and precipitation for the ensuing 7 months as well as mean values for months 1, 2 and 3 (as measured from the current month), and for months 2, 3, and 4. 30 year normal grids are also provided for reference. The product is available as a global gridded data set and also by specific latitude/longitude query.	Worldwide
Sub-Seasonal Forecast for Weeks 3-5	The Subseasonal Forecast provides anomaly and forecasted actual values for temperature and precipitation for the weeks 3, 4 and 5 (as measured from the current week). 30 year normal grids are also provided for reference. The product is available as a global gridded data set and also by specific latitude/longitude query.	Worldwide

Client is entitled to make up to 500M API calls per month.

1.1.12 Weather Company Data – History on Demand

This package includes access to the following Data:

Features	Description	Coverage
History on Demand (HoD)	<p>History on Demand offers data sets to address different historical data needs.</p> <ul style="list-style-type: none"> • Reanalysis is a worldwide, comprehensive data set spanning the period of July of 2011 to the present. Set on a roughly 23 square kilometer grid (measured at the equator with decreasing longitudinal spacing at higher latitudes), the product contains hourly values for surface temperature, wind speed, wind direction, relative humidity, atmospheric pressure, precipitation rate and dewpoint. • Conditions is a worldwide land mass and coastal waters data set spanning the period of September 2015 to the present. Set on a 4 square kilometer grid, the product contains hourly weather parameter values including temperature, windspeed, dewpoint, humidity and several period accumulation parameters such as 24 hour minimum and maximum temperature and precipitation accumulation and snowfall. • Historical data for analytic tooling is a United States based data set that provides minimum, maximum, and average aggregated parameter values for various parts of each day beginning in July 2015. The data is located at each of approximately 40,000 zip code locations across the United States provides values for day parts including, afternoon, evening, overnight as well as daytime and nighttime, all adjusted to local time for the location in question. Supported variables include temperature, dewpoint, windspeed and several other precipitation related items. 	Worldwide

The Cloud Service's API calls limit for this package is a maximum of 100 API calls per second for point type queries and 3 requests per second for area type queries. Client may experience fewer API calls per second to the extent, and in proportion to, other IBM Clients making simultaneous requests to the package APIs.

1.1.13 Weather Company Data – Renewable Energy

This package includes access to the following Data:

Features	Description	Coverage
Renewable Energy	<p>The Renewable Energy package provides access to Wind and Solar energy forecast.</p> <ul style="list-style-type: none"> • Wind energy forecast includes 15 day hourly forecasts of wind speed, wind direction and density at an elevation for a target height between 10m and 260m. • Solar energy forecast includes 7 day 15 minute and 15 day hourly forecasts of global horizontal irradiance (GHI) and 7 day 15 minute and 9 day hourly forecasts of downward normal irradiance (DNI). 	Worldwide

The Cloud Service's API request rate for this package is a maximum of 200 API requests per second. Client may experience lesser request rates to the extent, and in proportion to, other IBM clients making simultaneous requests for this package.

1.1.14 Weather Company Data – Agriculture

This package includes access to the following Data:

Features	Description	Coverage
Agriculture	<p>The Agriculture package provides access to a variety of forecast content suitable for agriculture including forecast for soil conditions, atmospheric conditions, and solar energy.</p> <ul style="list-style-type: none"> • 15 day hourly forecasts of soil moisture and soil temperature for soil depths between 0 and 200cm below the ground. • 15 day hourly forecasts of crop specific reference and modeled evapotranspiration. Crop types include Coffee, Corn, Cotton, Soybeans, Sugarcane, Wheat, Cacao and others. • 15 day 12-hour watering needs and frost potential indices. • 15 day daily indices for heating degree days, cooling degree days and growing degree days. • 7 day 15 minute and 9 or 15 day hourly forecasts of solar energy. 	Worldwide

The Cloud Service's API request rate for this package is a maximum of 200 API requests per second. Client may experience lesser request rates to the extent, and in proportion to, other IBM clients making simultaneous requests for this package.

1.1.15 Weather Company Data – Probabilistic Forecast & Weather Company Data – Enterprise Probabilistic Forecast

This package includes access to the following Data:

Features	Description	Coverage
Probabilistic Forecast	<p>The Probabilistic Forecast package provides a variety of statistical forecast Content including a histogram and/or probability integrations over a specified parameter value ranges and/or generalized percentile value extractions. Hourly forecast data starts at the beginning of the current hour, at time of call, and extends through the 10 days (including the current day). The package also includes access to probabilistic prototypes which are abstracted from the ensemble members used to create the probability histograms. Forecast parameters include temperature, dewpoint, wind speed and direction, relative humidity and accumulated liquid equivalent and snow precipitation over each hour.</p>	Worldwide

The Cloud Service's API request rate for this package is a maximum of 200 API requests per second. Client may experience lesser request rates to the extent, and in proportion to, other IBM clients making simultaneous requests for this package.

1.1.16 Weather Company Data – Recent Lightning Strikes for Site

This package includes access to the following Data:

Features	Description	Coverage
Recent Lightning Strikes for a Site (Small Area)	The Recent Lightning Strikes for Site package provides lightning strike Data for a number of accumulated time periods ranging from 15 second to 15 minute aggregations. The package provides cloud-to-ground and cloud-to-cloud strike information (with differentiation where available) within a 10 mile (16 km) radius of a desired location.	Worldwide

1.1.17 Weather Company Data – Recent Lightning Strikes for Local

This package includes access to the following Data:

Features	Description	Coverage
Recent Lightning Strikes for a Local Area	The Recent Lightning Strikes for Local package provides lightning strike Data for a number of accumulated time periods ranging from 15 second to 15 minute aggregations. The package provides cloud-to-ground and cloud-to-cloud strike information (with differentiation where available) within a 25 mile (40 km) radius of a desired location.	Worldwide

1.1.18 Weather Company Data – Recent Lightning Strikes for Region

This package includes access to the following Data:

Features	Description	Coverage
Recent Lightning Strikes for a Regional Area	The Recent Lightning Strikes for Region package provides lightning strike Data for a number of accumulated time periods ranging from 15 second to 15 minute aggregations. The package provides cloud-to-ground and cloud-to-cloud strike information (with differentiation where available) within a 100 mile (160 km) radius of a desired location.	Worldwide

1.1.19 Weather Company Data – Recent Lightning Strikes for Large Region

This package includes access to the following Data:

Features	Description	Coverage
Recent Lightning Strikes for a Large Regional Area	The Recent Lightning Strikes for Large Region package provides lightning strike Data for a number of accumulated time periods ranging from 15 second to 15 minute aggregations. The package provides cloud-to-ground and cloud-to-cloud strike information (with differentiation where available) within a 200 mile (325 km) radius of a desired location.	Worldwide

1.1.20 Weather Company Data – Recent Lightning Strikes for United States

This package includes access to the following Data:

Features	Description	Coverage
Recent Lightning Strikes for Continental United States	The Recent Lightning Strikes for United States package provides lightning strike Data for a number of accumulated time periods ranging from 15 second to 5 minute aggregations. The package provides cloud-to-ground and cloud-to-cloud strike information (with differentiation where available) for a bounding region covering the Continental United States.	Worldwide

1.1.21 Weather Company Data – Recent Lightning Strikes for Global

This package includes access to the following Data:

Features	Description	Coverage
Recent Lightning Strikes for Global	The Recent Lightning Strikes for Global package provides lightning strike Data for a number of accumulated time periods ranging from 15 second to 5 minute aggregations. The package provides cloud-to-ground and cloud-to-cloud strike information (with differentiation where available) for the globe.	Worldwide

1.1.22 Weather Company Data – Aviation Core

This package includes access to the following Data:

Features	Description	Coverage
Aviation Core	The Aviation Core package provides government sourced, worldwide meteorological products for aviation including METAR reports, TAFs, TFRs, government issue AIRMETs and SIGMETs, Ocean tracks and supplements, PIREPs, VAAC Bulletins, and High Level Significant Weather.	Worldwide

Client is entitled to make up to 500M API calls per month.

1.1.23 Weather Company Data – Aviation Enhanced Core

This package includes access to the following Data:

Features	Description	Coverage
Aviation Enhanced Core	The Aviation Enhanced Core package Global Radar, Forecast Radar, Tropical Tracks, Global Fronts, visibility, and wind and temperature data at flight level.	Worldwide

Client is entitled to make up to 500M API calls per month.

1.1.24 Weather Company Data – Aviation Enroute

This package includes access to the following Data:

Features	Description	Coverage
Aviation Enroute	The Aviation Enroute package includes the Aviation Core package data types as well as Weather Company produced SIGMET and FPG warning areas along with Weather Company graphical turbulence guidance, forecast icing potential, and high ice water content forecasts.	Worldwide

Client is entitled to make up to 500M API calls per month.

1.1.25 Weather Company Data – Aviation Flight Planning

This package includes access to the following Data:

Features	Description	Coverage
Aviation Flight Planning	The Aviation Flight Planning package includes Flight Planning Gridded data for wind, temperature, icing, cloudbase trop height, and turbulence from the WAFC centers. It also includes the following NOTAMs International, Canadian, US Domestic and FDC, Military, and Snow and Ash. This service is delivered through HTTPS push in Gridded and XML formats.	Worldwide

Client is entitled to make up to 500M API calls per month.

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://ibm.com/dpa/dpl> apply.

<https://www.ibm.com/software/reports/compatibility/clarity-reports/report/html/softwareReqsForProduct?deliverableId=0815C3C04DF111E69D99A7F65171374C>

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:

- API Call is the invocation of the Cloud Services through a programmable interface.
For the purpose of The Weather Company Data Package – Cleaned Historical Cloud Service, a Cleaned Historical API call is defined as a request for up to 7 days of data for a specified location.
- Record Line is a line item within a record that is a physical or electronic document processed by the Cloud Service.
For the purpose of the Weather Company Data Package – History on Demand, the retrieval of one day, or any portions thereof, of the parameters for the location requested is counted as a single Record Line.
- US Dollar Total Revenue is the total amount of Client's annual sales and other sources of income as stated in the most recent public report issued by the Client, or for non-public companies, Client's most recent audited financial report. Non-US Dollar currencies are converted to US Dollar equivalent in accordance with the conversion unit table at http://www.ibm.com/software/passportadvantage/conversion_unit_table.html.
- Application is a uniquely named software application program developed by or made available to access or used by the Cloud Services.
- Item is an occurrence of a specific item that is managed by, processed by, or related to the use of the Cloud Service.
For the purpose of this Cloud Service, an Item is each unique aircraft operated by the Client.

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 Termination of Service

Upon expiration or termination of Client's subscription, Client shall immediately cease all use of Data and promptly delete all Data from its systems.

5.2 Restrictions on Usage

- a. Client shall not use the Cloud Service or Data to target or trigger advertising, serve advertising based on the Data being associated with the location of any user of a consumer facing technology (e.g., weather-triggered advertising).
- b. Client shall not use the Data as part of any offering of any type emanating from a television or radio broadcast (e.g., over-the-air, cable, satellite) or subscription streaming service (e.g., Sling Television, Netflix, Hulu, Amazon Prime Video, HBO GO, or radio equivalent) delivered on, through or by any means or medium.
- c. Client shall i) use commercially reasonable efforts to prevent any portion of the Data from being collected or extracted from Client's computer systems, products or control ("Client's Custody") and ii) promptly notify IBM of any known or reasonably suspected collection or extraction of Data from Client's Custody. The parties shall then discuss in good faith and attempt to determine a commercially reasonable course of action to prevent such activity in the future. In the event the parties fail to agree upon or implement such commercially reasonable course of action within five (5) business days from the initial notice, then IBM shall have the right to suspend delivery of the Data until such time as necessary steps are taken to protect the Data residing in Client's Custody.

- d. Client shall publish and adhere to privacy policies in connection with Client's access, use, sharing and storage of information collected through or in relation to its use of the Data.
- e. Client agrees that the APIs and related specifications and documentation are IBM confidential information and cannot be used or disclosed outside the terms of this SD.
- f. Client acknowledges IBM may change the style, form or content of, and eliminate or discontinue segments of, the Data from time to time and at any time in its sole discretion; provided, IBM will include Client in its communications to similarly situated customers regarding material changes in the Data.
- g. Client's use of the "Recent Lightning Strikes" Cloud Service is restricted solely to its own internal use and the Data from this Service may not be reproduced, redistributed, retransmitted, resold or externally displayed in Third Party Applications or otherwise.
- h. When Client displays, transmits, exhibits, distributes, demonstrates or otherwise conveys the Data in any form or manner accessible by a third party (e.g. Client's customers, business partners or product end users) ("Third Party Facing Application"), Client agrees that:
 - (1) Client is prohibited from using the Data, directly or indirectly, as part of, or to create, a Third Party Application the essential purpose of which is to provide current or forecast weather or atmospheric conditions or analysis thereof.
 - (2) Where Client is using Cleaned Historical Data, the Data must be transformed or otherwise altered from its original form.
 - (3) IBM shall be the exclusive provider of weather and weather related content and information for a Third Party Facing Application. Accordingly, (i) Client shall not display anywhere within a Third Party Facing Application any weather or weather related content other than the Data; and (ii) Client shall not include anywhere within a Third Party Facing Application any content provided by any party whose primary line of business consists of the production, distribution or display of weather or weather related information, provided that, Client may include weather or weather related content received directly from any federal, state, or local government entities or agencies or any government-controlled entity. In addition, Client will not exhibit any advertisement for any weather service programming or content other than IBM or its affiliates (whether local, regional, national or international) in close proximity to the Data displayed in a Third Party Facing Application.
 - (4) Client may not change the specific weather information, data or forecasts contained or depicted in any part of the Data and shall not otherwise edit, modify, alter or prepare derivative works of the Data.
 - (5) Client shall display the clickable hypertext/graphical links and logos containing embedded hypertext links, trademarks, service marks, logos and other proprietary indicia of The Weather Company, an IBM Business provided to Client from time to time ("Marks") together with all Data as and where used by Client. IBM shall have the right to designate which Marks shall be displayed in association with its Data. Client may not omit, vary or otherwise change any of the Marks, or the manner in which they are displayed in a Third Party Facing Application (including, without limitation, their size, color, location or style) without IBM's written agreement.
 - (6) Client shall not imply, directly or indirectly that IBM provides, endorses, sponsors, certifies or approves of any other Content included within a Third Party Facing Application or any products or services advertised near the Data.
 - (7) Client's transmission and display of the Data shall be without interruption and in conformance with the following technical specifications and performance standards as may be amended from time to time:
 - (a) IBM reserves the right to establish and limit the maximum frequency with which Client may call the data feed for a given location ID requesting a data set for that location ID. During the time period in between refresh periods, it is Client's responsibility to cache the data.
 - (b) Data Display:
Client shall provide IBM with an opportunity to review its usage of the Data for a period of not less than five (5) business days before making the Data available on or through a

Third Party Facing Application. IBM shall have the right to disapprove the manner in which the Data is displayed within a Third Party Facing Application provided that IBM's review and approval will not be unreasonably withheld or delayed. For Third Party Facing applications, Client must monitor the functionality, performance and appearance of the Data so as to assess, promptly notify and remedy any Impact observed as per the following table:

(8) Third Party Facing Application Support Classifications

Classification	Impact	Initial Response Time	Resolution Time
Critical	Users are unable to receive Data (current conditions, forecasts, radar images or severe weather alerts) for any location, or receipt by users of severe weather alerts is delayed by one (1) minute or more from the time alerts are received by Client from IBM.	< 1 hour	4 hour
Important	Users are receiving old or dated current conditions, forecasts, or radar images for any location, such that updates have not occurred: (i) in the case of current conditions or radar images, for more than 2 hours; (ii) in the case of forecasts, for more than 6 hours.	< 2 hours	1 business day
Minor	Cosmetic, performance, training or technical issue for which a workaround exists or that does not substantially affect the integrity accuracy or timeliness of the Data.	2 business days	1 week

IBM may terminate Client's subscription at the end of the Resolution Time for the latest failure if, during any one month period, Client fails to correct more than one Critical or Important problem within the Resolution Time.

5.3 Data Source Attributions

Data displayed in any Third Party Facing Application may require attribution. Client is required to follow the attribution requirements on a per API basis as provided in the API documentation.

5.4 Country Limitations on Usage

Client is responsible for, and IBM's obligations under this SD shall be conditioned on Client determining whether its use of the Data is permissible and, to the extent necessary, obtaining, all necessary licenses, permits, approvals or authorizations from any governmental entity or agency in the country in which it operates or uses the Data.