IBM

IBM Insights for Weather

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

For purposes of this Service Description, the offerings are classified as a data offering. When referencing the Cloud Service, it refers to the data offerings defined in this Service Description.

1. Cloud Service

The IBM Cloud Service for IBM Insights for Weather offerings uses application program interfaces (APIs) that enable Client to receive data from IBM's partner, The Weather Company. Client is granted the right to access and use the APIs, within its Enterprise only, during the term of the subscription to structure and use API calls to receive weather data. Client may use, copy, and provide any data resulting from such API calls within or outside its Enterprise. Client is not authorized to sublicense, resell, or otherwise distribute all or any part of the APIs provided by the Cloud Service outside of Client's Enterprise.

This Cloud Service is not designed to any specific security requirements for regulated content, such as personal information or sensitive personal information. Client is responsible to determine if this Cloud Service meets Clients needs with regard to the type of content Client uses in connection with the Cloud Service.

The available Cloud Service offerings are as follows. A detailed description of each offering is found in Appendix A.

1.1 Insurance-related Offerings

IBM Severe Weather Disaster Realtime for Insurance

IBM Alerts and Notification for Insurance

IBM Current Conditions for Insurance

IBM Forecast Data for Insurance

IBM Enhanced Forecast Data for Insurance

IBM Historic Severe Weather for Insurance

IBM Tropical Weather Forecast for Insurance

IBM Historic Roads Usage Data for Insurance

IBM Weather Imagery Insurance for Insurance

1.2 Utilities-related Offerings

IBM Severe Weather Disaster Realtime Forecast for Utilities

IBM Alerts and Notification for Utilities

IBM Current Conditions for Utilities

IBM Forecast Data for Utilities

IBM Enhanced Forecast Data for Utilities

IBM Historic Weather for Utilities

IBM Tropical Weather Forecast for Utilities

IBM Weather Imagery for Utilities

IBM Seasonal Forecast for Utilities

1.3 Offerings not related to Insurance, Utilities or Smarter Cities/ Local Government Industries

IBM Severe Weather Realtime for Select Industries

IBM Alerts and Notification for Select Industries

IBM Current Conditions for Select Industries

IBM Forecast Data for Select Industries

IBM Enhanced Forecast Data for Select Industries

IBM Historic Severe Weather for Select Industries

IBM Tropical Weather Forecast for Select Industries

IBM Weather Imagery for Select Industries

1.4 Smarter Cities and Local Government-related Offerings

IBM Severe Weather Disaster Realtime for Local Government

IBM Alerts and Notification for Local Government

IBM Current Conditions for Local Government

IBM Forecast Data for Local Government

IBM Enhanced Forecast Data for Local Government

IBM Historic Severe Weather for Local Government

IBM Historic Roads Usage Data for Local Government

IBM Tropical Weather Forecast for Local Government

IBM Weather Imagery for Local Government

2. Security Description

This Cloud Service follows IBM's data security and privacy principles for IBM SaaS which are available at https://www.ibm.com/cloud/resourcecenter/content/80 and any additional terms provided in this section. Any change to IBM's data security and privacy principals will not degrade the security of the Cloud Service.

3. Technical Support

During the subscription period, technical support is provided for the duration of this Cloud Service as set forth in the IBM SaaS Support Handbook at http://www.ibm.com/software/support/handbook.html or a subsequent URL provided by IBM. Technical support is included with the Cloud Service and is not available as a separate offering.

4. Entitlement and Billing Information

4.1 Charge Metrics

The Cloud Service is sold under one of the following charge metric(s) as specified in the Transaction Document:

a. Export is a unit of measure by which the Cloud Service can be obtained. An Export represents the exporting of data contained within the Cloud Service for use by Client outside of the Cloud Service. An entitlement must be obtained for each Export.

a. Million US Dollars Premium Collected is a unit of measure by which the Cloud Service can be obtained. Premium Collected is the total annual premiums collected by Client as stated in the most recent public report issued by the Client, or to the extent Client does not publicly report collected premiums, as stated in Client's most recent audited financial report. Premium Collected in non-US dollar currencies must be converted to US dollars in accordance with the table located at http://www.ibm.com/software/passportadvantage/conversion_unit_table.html. Sufficient entitlements must be obtained to cover the amount of Premium Collected in US Dollars, as reported by Client, rounded up to the nearest one Million US Dollars.

b. Million US Dollars Total Revenue is a unit of measure by which the Cloud Service can be obtained. 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 to the extent Client does not publicly report revenue, as stated in Client's most recent audited financial report. Total Revenue in non-US dollar currencies must be converted to US dollars in accordance with the table located at http://www.ibm.com/software/passportadvantage/conversion_unit_table.html. Sufficient entitlements must be obtained to cover the amount of Total Revenue in US Dollars, as reported by Client, rounded up to the nearest one Million US Dollars.

c.   Population is a unit of measure by which the Cloud Service can be obtained. A Population is all the inhabitants of a particular geographic area. Sufficient entitlements must be obtained to cover the Population residing in Client's entity using the Cloud Service during the measurement period specified in Client's Proof of Entitlement (PoE) or Transaction Document.

d.   Meter Device is a unit of measure by which the Cloud Service can be obtained. A Meter Device is an instrument that measures or shows consumption. Sufficient entitlements must be obtained to cover the number of Meter Devices utilized by the Client using the Cloud Service during the measurement period specified in Client's Proof of Entitlement (PoE) or Transaction Document.

4.2 Set-Up Charges

Set-up charges will be specified in a Transaction Document.

4.3 Partial Month Charges

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

5. Term and Renewal Options

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

For automatic renewal, unless Client provides written notice not to renew at least 90 days prior to the term expiration date, the Cloud Service will automatically renew for the term specified in the PoE.

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

6. General

6.1 Tax Requirements

The tax consequences for data service offerings may differ from the tax consequences of standard SaaS products. IBM does not provide tax advice and recommends Client contact its tax consulting professional regarding data service offering tax consequences.

6.2 Additional Terms and Conditions

The following additional terms apply:

a.   IBM's applicable indemnity terms in the Agreement do not apply to this Cloud Service offering. Client acknowledges The Weather Company does not provide an indemnity and Client agrees not to seek recourse against The Weather Company for any claims related to the data provided in its use of the Cloud Service offering.

b.   Client shall not imply, directly or indirectly that The Weather Company or its affiliates provide, endorse, sponsor, certify or approve of any other content included within any products or services advertised in or near the product or data not provided by The Weather Company.

Appendix A

IBM Insights for Weather data offerings provide Client access and use of the provided application program interfaces (APIs) for the data offerings ordered by Client. IBM will set up and enable Client use of the provided APIs that will enable Client to create and structure API calls to receive targeted weather data for the available offering features. The following are descriptions of the available subscriptions of the Cloud Service offerings and the available features of each offering.

1. Insurance-related Offerings

1.1 IBM Severe Weather Disaster Realtime for Insurance

This offering provides 5-minute rapid refresh severe weather data including ice, flooding, hail, and tornadoes.

Features	Description	Coverage	File Formats
HailZone	30 minute damaging hail swath forecast	US	KML, SHP, XML, PNG
StrikeZone	30 minute lightning intensity forecast	US	KML, SHP, XML, PNG
HailVision	1, 3, 6, 12 and 24 hour trailing hail estimates	US	KML, SHP, XML, PNG
ShearVision	1, 3, 6, 12 and 24 hour trailing tornado path estimates	US	KML, SHP, XML, PNG
WindVision	1, and 24 hour trailing damaging wind estimates	US, Europe	SHP
SnowVision	1, 3, 6, 12 and 24 hour trailing accumulated snow estimates	US	KML, SHP, XML, PNG
IceVision	1, 3, 6, 12 and 24 hour trailing accumulated ice estimates	US	KML, SHP, XML, PNG
RainVision	1, 3, 6, 12 and 24 hour trailing accumulated rain estimates	US	KML, SHP, XML, PNG
Tornado Debris Signature (TDS)	Location of detected airborne tornado induced debris	US	XML
Storm Reports	Text reports of observed severe weather such as wind or hail damage, snow depth that is parsed from NWS Local Storm Report (LSR) bulletins.	US	XML, JSON

1.2 IBM Alerts and Notification for Insurance

Government weather and geographical alerts from multiple countries, including global tropical and earthquake coverage.

Features	Description	Coverage	File Formats
Weather Alerts	Government issued weather alerts	US, Europe, Canada	XML, JSON
Tropical Alerts	Tropical weather alerts and bulletins for the	Worldwide	XML, JSON

	Atlantic, Pacific, and Indian ocean basins		
Wildfire Notification	Wildfire outbreak data	US	XML, JSON
Earthquake Notification	Earthquake incident data	Worldwide	XML, JSON

1.3   IBM Current Conditions for Insurance

This offering includes The Weather Company's weather observation network and Currents on Demand. Government issued weather sensors (METAR and SYNOP) are augmented by 125,000+ proprietary neighborhood weather stations. This data is used to computationally infer weather on a point by point basis anywhere in the world.

Features	Description	Coverage	File Formats
Personal Weather Station Data (PWS)	Data from 125,000+ Weather Underground crowd-sourced sensors	Worldwide	XML, JSON
Currents on Demand (COD)	High resolution, high temporal current conditions, including associated weather phrase and icon	Worldwide	XML, JSON
Site Based Observations	Observed weather data, including associated weather phrase and icon collected from METAR and SYNOP observation sites	Worldwide	XML, JSON
Time-Series Based Observations	Historical weather data from METAR and SYNOP observation sites for specified time range	Worldwide	XML, JSON

1.4   IBM Forecast Data for Insurance

The Weather Company's forecast engine includes ensemble model forecasting, 200 meteorologists and related scientists, and a network of observations and radar to deliver forecasts at 500 square meter resolution globally. Forecasts are updated every 15-minutes.

Features	Description	Coverage	File Formats
Forecast Indices	Forecast severity of weather related consequences on human health and activities reported for day or partial-day periods	Worldwide	XML, JSON
Standard 1-Day Hourly	Forecast for next 24 hours starting from the current time	Worldwide	XML, JSON
Standard 10-Day Daily	Forecast for 24-hour periods starting today for the next 10 days including daytime and nighttime. Includes narrative text for the language requested	Worldwide	XML, JSON
Standard 10-Day Intraday	Forecast for 6-hour periods starting today for the next 10 days. Includes 'morning' (7am to 1pm), 'afternoon' (1pm - 7pm), 'tonight' (7pm - 1am), and 'overnight' (1am- 7am).	Worldwide	XML, JSON
Pollen Observations	Data observations from available allergists offices on weekdays excluding holidays. Includes pollen count and index for all major pollen categories: Tree, Grass, Weed and Mold.	US	XML, JSON

Air Quality Historical, Observations and Forecast	Data from multiple air quality sensor networks including historical, daily observations, and forecast air quality out 24 hours. Includes specific pollutant indexes and counts for major categories: Ozone, PM2.5, PM10, Carbon Monoxide, Nitrogen Dioxide and Sulfur Dioxide.	US	XML, JSON
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.	US	XML, JSON

1.5 IBM Enhanced Forecast Data for Insurance

This offering provides the API tools to populate GIS platforms and interactive maps. Data includes the forecast hour-by-hour out 15 days at 500 square meter resolution.

Features	Description	Coverage	File Formats
Standard 15-Day Hourly	Hourly Forecast for the next 15 Days starting from the current time	Worldwide	XML, JSON
Global Forecast Visualizations	Access to Forecast Data in Tile and Polygon based formats for viewing in GIS platforms and interactive maps	Worldwide	KML, SHP, XML, PNG

1.6 IBM Historic Severe Weather for Insurance

Includes historical data from The Weather Company's 125,000+ proprietary network of personal weather sensors and radar-derived historical products for severe wind, hail and tornadoes.

Features	Description	Coverage	File Formats
HailVision	24 hour hail swath history starting June 25, 2014	US	SHP, KML
WindVision	24 hour damaging wind history starting July 3, 2014	US	SHP, KML
Tornado Debris Signature (TDS)	24 hour detected airborne tornado induced debris history starting November 17, 2013	US	SHP, KML
Personal Weather Station Historical Observations	Archived data from 125,000+ Weather Underground crowd-sourced sensors from 2000	Worldwide	XML, JSON
Standard Historical Observations	Archived observed weather data from METAR/SYNOP stations from 1950. Note coverage and confidence can differ from year-to-year	Worldwide	XML, JSON

1.7 IBM Tropical Weather Forecast for Insurance

Global 15-Day tropical forecasts including probabilistic forecast tracks and storm surge prediction.

Features	Description	Coverage	File Formats
Storm Surge	Tropically induced coastal flooding forecasts up to 48 hours ahead of the storm	US	XML, SHP, KML, PNG
Tropical PHD	TWC proprietary 15-day probabilistic hurricane	Worldwide	XML, SHP,

			KML, PNG
	forecast		

1.8 IBM Historic Roads Usage Data for Insurance

High-resolution, high-temporal historical weather data that uses radar analysis and The Weather Company's high density network of 125,000+ personal weather sensors to provide precipitation type and amounts on a street by street basis.

Features	Description	Coverage	File Formats
RainVision	Historic 5 minute accumulated rain estimates in 1, 3, 6, 12, and 24 hour intervals starting July 30, 2013	US	CSV
IceVision	Historic 5 minute accumulated ice estimates 1, 3, 6, 12, and 24 hour intervals starting July 30, 2013	US	CSV
SnowVision	Historic 5 minute accumulated snow estimates 1, 3, 6, 12, and 24 hour intervals starting July 30, 2013	US	CSV
RainRate	Historic 5 minute rain intensity estimates 1, 3, 6, 12, and 24 hour intervals starting July 30, 2013	US	CSV

1.9 IBM Weather Imagery Insurance for Insurance

Aggregated available radar and satellite data. Radar data from throughout North America, Western Europe and Australia, and global satellite data

Features	Description	Coverage	File Formats
Radar Images	Doppler radar images at various zoom levels (including city, state, regional, and national) updated every 5-15 minutes.	North America, Western Europe, Australia	Quad Key PNG
Satellite Images	Satellite images at various zoom levels and geographic sizes updated every 30-60 minutes	Worldwide	Quad Key PNG

2. Utilities-related Offerings

2.1 IBM Severe Weather Disaster Realtime Forecast for Utilities

This offering provides 5-minute rapid refresh severe weather data including wind, lightning, and tornadoes.

Features	Description	Coverage	File Formats
StrikeZone	30 minute lightning intensity forecast	US	KML, SHP, XML, PNG
Real Time Lightning Data	Strike by Strike Cloud to Ground and Cloud to Cloud Lightning	Worldwide	KML, XML, CSV
WindVision	1, and 24 hour trailing damaging wind estimates	US, Europe	SHP
Tornado Debris Signature (TDS)	Location of detected airborne tornado induced debris	US	XML
Storm Reports	Text reports of observed severe weather such as wind or hail damage, snow depth that is parsed	US	XML, JSON

	from NWS Local Storm Report (LSR) bulletins.		

2.2 IBM Alerts and Notification for Utilities

Government weather and geographical alerts from multiple countries, including global tropical and earthquake coverage.

Features	Description	Coverage	File Formats
Weather Alerts	Government issued weather alerts	US, Europe, Canada	XML, JSON
Tropical Alerts	Tropical weather alerts and bulletins for the Atlantic, Pacific, and Indian ocean basins	Worldwide	XML, JSON
Wildfire Notification	Wildfire outbreak data	US	XML, JSON
Earthquake Notification	Earthquake incident data	Worldwide	XML, JSON

2.3 IBM Current Conditions for Utilities

This offering includes The Weather Company's weather observation network and Currents on Demand. Government issued weather sensors (METAR and SYNOP) are augmented by 125,000+ proprietary neighborhood weather stations. This data is used to computationally infer weather on a point by point basis anywhere in the world.

Features	Description	Coverage	File Formats
Personal Weather Station Data (PWS)	Data from 125,000+ Weather Underground crowd-sourced sensors	Worldwide	XML, JSON
Currents on Demand (COD)	High resolution, high temporal current conditions, including associated weather phrase and icon	Worldwide	XML, JSON
Site Based Observations	Observed weather data, including associated weather phrase and icon collected from METAR and SYNOP observation sites	Worldwide	XML, JSON
Time-Series Based Observations	Historical weather data from METAR and SYNOP observation sites for specified time range	Worldwide	XML, JSON

2.4 IBM Forecast Data for Utilities

The Weather Company's forecast engine includes ensemble model forecasting, 200 meteorologists and related scientists, and a network of observations and radar to deliver forecasts at 500 square meter resolution globally. Forecasts are updated every 15-minutes.

Features	Description	Coverage	File Formats
Forecast Indices	Forecast severity of weather related consequences on human health and activities reported for day or partial-day periods	Worldwide	XML, JSON
Standard 1-Day Hourly	Forecast for next 24 hours starting from the current time	Worldwide	XML, JSON

Standard 10-Day Daily	Forecast for 24-hour periods starting today for the next 10 days including daytime and nighttime. Includes narrative text for the language requested	Worldwide	XML, JSON
Standard 10-Day Intraday	Forecast for 6-hour periods starting today for the next 10 days. Includes 'morning' (7am to 1pm), 'afternoon' (1pm - 7pm), 'tonight' (7pm - 1am), and 'overnight' (1am- 7am).	Worldwide	XML, JSON
Pollen Observations	Data observations from available allergists offices on weekdays excluding holidays. Includes pollen count and index for all major pollen categories: Tree, Grass, Weed and Mold.	US	XML, JSON
Air Quality Historical, Observations and Forecast	Data from multiple air quality sensor networks including historical, daily observations, and forecast air quality out 24 hours. Includes specific pollutant indexes and counts for major categories: Ozone, PM2.5, PM10, Carbon Monoxide, Nitrogen Dioxide and Sulfur Dioxide.	US	XML, JSON
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.	US	XML, JSON

2.5 IBM Enhanced Forecast Data for Utilities

Provides the API tools to populate GIS platforms. Data includes the forecast hour-by-hour out 15 days at 500 square meter resolution.

Features	Description	Coverage	File Formats
Standard 15-Day Hourly	Hourly Forecast for the next 15 Days starting from the current time	Worldwide	XML, JSON

2.6 IBM Historic Weather for Utilities

Includes historical data from The Weather Company's 125,000+ proprietary network of personal weather sensors and radar-derived historical products for severe wind and tornadoes.

Features	Description	Coverage	File Formats
WindVision	24 hour damaging wind history starting July 3, 2014	US	SHP, KML
Tornado Debris Signature (TDS)	24 hour detected airborne tornado induced debris history starting November 17, 2013	US	SHP, KML
Personal Weather Station Historical Observations	Archived data from 125,000+ Weather Underground crowd-sourced sensors from 2000	Worldwide	XML, JSON
Standard Historical Observations	Archived observed weather data from METAR/SYNOP stations from 1950. Note coverage and confidence can differ from year-to-year	Worldwide	XML, JSON

2.7 IBM Tropical Weather Forecast for Utilities

Global 15-Day tropical forecasts including probabilistic forecast tracks and storm surge prediction.

Features	Description	Coverage	File Formats
Storm Surge	Tropically induced coastal flooding forecasts up to 48 hours ahead of the storm	US	XML, SHP, KML, PNG
Tropical PHD	TWC proprietary 15-day probabilistic hurricane forecast	Worldwide	XML, SHP, KML, PNG

2.8 IBM Weather Imagery for Utilities

Aggregated available radar and satellite data. Radar data from throughout North America, Western Europe and Australia, and global satellite data

Features	Description	Coverage	File Formats
Radar Images	Doppler radar images at various zoom levels (including city, state, regional, and national) updated every 5-15 minutes.	North America, Western Europe, Australia	Quad Key PNG
Satellite Images	Satellite images at various zoom levels and geographic sizes updated every 30-60 minutes	Worldwide	Quad Key PNG

2.9 IBM Seasonal Forecast for Utilities

Data includes monthly seasonal forecasts for temperature and precipitation anomalies out 4 months. In addition, seasonal weather experts provide insight into the confidence and reasoning behind the forecasts.

Features	Description	Coverage	File Formats
Seasonal Forecast	WSI Seasonal Forecasts offer a comprehensive look at the long range weather forecast out beyond the traditional 15-Day Forecast. Temperature and Precipitation anomaly prediction for regions around the globe out to 4 months in the future	North America, Europe, and Asia	PDF

3. Select Industries Offerings other than Insurance, Utilities or Smarter Cities/Local Government Industries

3.1 IBM Severe Weather Realtime for Select Industries

This offering provides 5-minute rapid refresh severe weather data including ice, flooding, hail, and tornadoes.

Features	Description	Coverage	File Formats
HailZone	30 minute damaging hail swath forecast	US	KML, SHP, XML, PNG
StrikeZone	30 minute lightning intensity forecast	US	KML, SHP, XML, PNG
HailVision	1, 3, 6, 12 and 24 hour trailing hail estimates	US	KML, SHP, XML, PNG
ShearVision	1, 3, 6, 12 and 24 hour trailing tornado path estimates	US	KML, SHP, XML, PNG
WindVision	1, and 24 hour trailing damaging wind	US, Europe	SHP

	estimates		
SnowVision	1, 3, 6, 12 and 24 hour trailing accumulated snow estimates	US	KML, SHP, XML, PNG
IceVision	1, 3, 6, 12 and 24 hour trailing accumulated ice estimates	US	KML, SHP, XML, PNG
RainVision	1, 3, 6, 12 and 24 hour trailing accumulated rain estimates	US	KML, SHP, XML, PNG
Tornado Debris Signature (TDS)	Location of detected airborne tornado induced debris	US	XML
Storm Reports	Text reports of observed severe weather such as wind or hail damage, snow depth that is parsed from NWS Local Storm Report (LSR) bulletins.	US	XML, JSON

3.2 IBM Alerts and Notification for Select Industries

Government weather and geographical alerts from multiple countries, including global tropical and earthquake coverage.

Features	Description	Coverage	File Formats
Weather Alerts	Government issued weather alerts	US, Europe, Canada	XML, JSON
Tropical Alerts	Tropical weather alerts and bulletins for the Atlantic, Pacific, and Indian ocean basins	Worldwide	XML, JSON
Wildfire Notification	Wildfire outbreak data	US	XML, JSON
Earthquake Notification	Earthquake incident data	Worldwide	XML, JSON

3.3 IBM Current Conditions for Select Industries

Includes The Weather Company's weather observation network and Currents on Demand. Government issued weather sensors (METAR and SYNOP) are augmented by 125,000+ proprietary neighborhood weather stations. This data is used to computationally infer weather on a point by point basis anywhere in the world.

Features	Description	Coverage	File Formats
Personal Weather Station Data (PWS)	Data from 125,000+ Weather Underground crowd-sourced sensors	Worldwide	XML, JSON
Currents on Demand (COD)	High resolution, high temporal current conditions, including associated weather phrase and icon	Worldwide	XML, JSON
Site Based Observations	Observed weather data, including associated weather phrase and icon collected from METAR and SYNOP observation sites	Worldwide	XML, JSON
Time-Series	Historical weather data from METAR and	Worldwide	XML, JSON

Based Observations	SYNOP observation sites for specified time range		

3.4 IBM Forecast Data for Select Industries

The Weather Company's forecast engine includes ensemble model forecasting, 200 meteorologists and related scientists, and a network of observations and radar to deliver forecasts at 500 square meter resolution globally. Forecasts are updated every 15-minutes.

Features	Description	Coverage	File Formats
Forecast Indices	Forecast severity of weather related consequences on human health and activities reported for day or partial-day periods	Worldwide	XML, JSON
Standard 1-Day Hourly	Forecast for next 24 hours starting from the current time	Worldwide	XML, JSON
Standard 10-Day Daily	Forecast for 24-hour periods starting today for the next 10 days including daytime and nighttime. Includes narrative text for the language requested	Worldwide	XML, JSON
Standard 10-Day Intraday	Forecast for 6-hour periods starting today for the next 10 days. Includes 'morning' (7am to 1pm), 'afternoon' (1pm - 7pm), 'tonight' (7pm - 1am), and 'overnight' (1am- 7am).	Worldwide	XML, JSON
Pollen Observations	Data observations from available allergists offices on weekdays excluding holidays. Includes pollen count and index for all major pollen categories: Tree, Grass, Weed and Mold.	XML, JSON	US
Air Quality Historical, Observations and Forecast	Data from multiple air quality sensor networks including historical, daily observations, and forecast air quality out 24 hours. Includes specific pollutant indexes and counts for major categories: Ozone, PM2.5, PM10, Carbon Monoxide, Nitrogen Dioxide and Sulfur Dioxide.	XML, JSON	US
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.	XML, JSON	US

3.5 IBM Enhanced Forecast Data for Select Industries

Provides the API tools to populate GIS platforms. Data includes the forecast hour-by-hour out 15 days at 500 square meter resolution.

Features	Description	Coverage	File Formats
Standard 15-Day Hourly	Hourly Forecast for the next 15 Days starting from the current time	Worldwide	XML, JSON

3.6   IBM Historic Severe Weather for Select Industries

Includes historical data from The Weather Company's 125,000+ proprietary network of personal weather sensors.

Features	Description	Coverage	File Formats
Personal Weather Station Historical Observations	Archived data from 125,000+ Weather Underground crowd-sourced sensors from 2000	Worldwide	XML, JSON
Standard Historical Observations	Archived observed weather data from METAR/SYNOP stations from 1950. Note coverage and confidence can differ from year-to-year	Worldwide	XML, JSON

3.7   IBM Tropical Weather Forecast for Select Industries

Global 15-Day tropical forecasts including probabilistic forecast tracks and storm surge prediction.

Features	Description	Coverage	File Formats
Storm Surge	Tropically induced coastal flooding forecasts up to 48 hours ahead of the storm	US	XML, SHP, KML, PNG
Tropical PHD	TWC proprietary 15-day probabilistic hurricane forecast	Worldwide	XML, SHP, KML, PNG

3.8   IBM Weather Imagery for Select Industries

Aggregated available radar and satellite data. Radar data from throughout North America, Western Europe and Australia, and global satellite data

Features	Description	Coverage	File Formats
Radar Images	Doppler radar images at various zoom levels (including city, state, regional, and national) updated every 5-15 minutes.	North America, Western Europe, Australia	Quad Key PNG
Satellite Images	Satellite images at various zoom levels and geographic sizes updated every 30-60 minutes	Worldwide	Quad Key PNG

4.   Smarter Cities/Local Government-related Offerings

4.1   IBM Severe Weather Disaster Realtime for Local Government

This offering includes 5-minute rapid refresh severe weather data including ice, flooding, hail, and tornadoes.

Features	Description	Coverage	File Formats
HailZone	30 minute damaging hail swath forecast	US	KML, SHP, XML, PNG
StrikeZone	30 minute lightning intensity forecast	US	KML, SHP, XML, PNG
Real Time Lightning Data	Strike by Strike Cloud to Ground and Cloud to Cloud Lightning	Worldwide	KML, XML, CSV

HailVision	1, 3, 6, 12 and 24 hour trailing hail estimates	US	KML, SHP, XML, PNG
ShearVision	1, 3, 6, 12 and 24 hour trailing tornado path estimates	US	KML, SHP, XML, PNG
WindVision	1, and 24 hour trailing damaging wind estimates	US, Europe	SHP
SnowVision	1, 3, 6, 12 and 24 hour trailing accumulated snow estimates	US	KML, SHP, XML, PNG
IceVision	1, 3, 6, 12 and 24 hour trailing accumulated ice estimates	US	KML, SHP, XML, PNG
RainVision	1, 3, 6, 12 and 24 hour trailing accumulated rain estimates	US	KML, SHP, XML, PNG
Tornado Debris Signature (TDS)	Location of detected airborne tornado induced debris	US	XML
Storm Reports	Text reports of observed severe weather such as wind or hail damage, snow depth that is parsed from NWS Local Storm Report (LSR) bulletins.	US	XML, JSON

4.2   IBM Alerts and Notification for Local Government

Government weather and geographical alerts from multiple countries, including global tropical and earthquake coverage.

Features	Description	Coverage	File Formats
Weather Alerts	Government issued weather alerts	US, EU, CA	XML, JSON
Tropical Alerts	Tropical weather alerts and bulletins for the Atlantic, Pacific, and Indian ocean basins	Worldwide	XML, JSON
Wildfire Notification	Wildfire outbreak data	US	XML, JSON
Earthquake Notification	Earthquake incident data	Worldwide	XML, JSON

4.3   IBM Current Conditions for Local Government

Includes The Weather Company's weather observation network and Currents on Demand. Government issued weather sensors (METAR and SYNOP) are augmented by 125,000+ proprietary neighborhood weather stations. This data is used to computationally infer weather on a point by point basis anywhere in the world.

Features	Description	Coverage	File Formats
Personal Weather Station Data (PWS)	Data from 125,000+ Weather Underground crowd-sourced sensors	Worldwide	XML, JSON
Currents on Demand (COD)	High resolution, high temporal current conditions, including associated weather phrase and icon	Worldwide	XML, JSON

Site Based Observations	Observed weather data, including associated weather phrase and icon collected from METAR and SYNOP observation sites	Worldwide	XML, JSON
Time-Series Based Observations	Historical weather data from METAR and SYNOP observation sites for specified time range	Worldwide	XML, JSON

4.4 IBM Forecast Data for Local Government

The Weather Company's forecast engine includes ensemble model forecasting, 200 meteorologists and related scientists, and a network of observations and radar to deliver forecasts at 500 square meter resolution globally. Forecasts are updated every 15-minutes.

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Standard 10-Day Daily	Forecast for 24-hour periods starting today for the next 10 days including daytime and nighttime. Includes narrative text for the language requested	Worldwide	XML, JSON
Standard 10-Day Intraday	Forecast for 6-hour periods starting today for the next 10 days. Includes 'morning' (7am to 1pm), 'afternoon' (1pm - 7pm), 'tonight' (7pm - 1am), and 'overnight' (1am- 7am).	Worldwide	XML, JSON
Pollen Observations	Data observations from available allergists offices on weekdays excluding holidays. Includes pollen count and index for all major pollen categories: Tree, Grass, Weed and Mold.	XML, JSON	US
Air Quality Historical, Observations and Forecast	Data from multiple air quality sensor networks including historical, daily observations, and forecast air quality out 24 hours. Includes specific pollutant indexes and counts for major categories: Ozone, PM2.5, PM10, Carbon Monoxide, Nitrogen Dioxide and Sulfur Dioxide.	XML, JSON	US
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.	XML, JSON	US

4.5 IBM Enhanced Forecast Data for Local Government

Provides the API tools to populate GIS platforms and interactive maps. Data includes the forecast hour-by-hour out 15 days at 500 square meter resolution.

Features	Description	Coverage	File Formats

Standard 15-Day Hourly	Hourly Forecast for the next 15 Days starting from the current time	Worldwide	XML, JSON
Global Forecast Visualizations	Access to Forecast Data in Tile and Polygon based formats for viewing in GIS platforms and interactive maps	Worldwide	KML, SHP, XML, PNG

4.6 IBM Historic Severe Weather for Local Government

Includes historical data from The Weather Company's 125,000+ proprietary network of personal weather sensors and radar-derived historical products for severe wind, hail and tornadoes.

Features	Description	Coverage	File Formats
HailVision	24 hour hail swath history starting June 25, 2014	US	SHP, KML
WindVision	24 hour damaging wind history starting July 3, 2014	US	SHP, KML
Tornado Debris Signature (TDS)	24 hour detected airborne tornado induced debris history starting November 17, 2013	US	SHP, KML
Personal Weather Station Historical Observations	Archived data from 125,000+ Weather Underground crowd-sourced sensors from 2000	Worldwide	XML, JSON
Standard Historical Observations	Archived observed weather data from METAR/SYNOP stations from 1950. Note coverage and confidence can differ from year-to-year	Worldwide	XML, JSON

4.7 IBM Historic Roads Usage Data for Local Government

High-resolution, high-temporal historical weather data that uses radar analysis and The Weather Company's high density network of 125,000+ personal weather sensors to provide precipitation type and amounts on a street by street basis.

Features	Description	Coverage	File Formats
RainVision	Historic 5 minute accumulated rain estimates in 1, 3, 6, 12, and 24 hour intervals starting July 30, 2013	US	CSV
IceVision	Historic 5 minute accumulated ice estimates 1, 3, 6, 12, and 24 hour intervals starting July 30, 2013	US	CSV
SnowVision	Historic 5 minute accumulated snow estimates 1, 3, 6, 12, and 24 hour intervals starting July 30, 2013	US	CSV
RainRate	Historic 5 minute rain intensity estimates 1, 3, 6, 12, and 24 hour intervals starting July 30, 2013	US	CSV

4.8 IBM Tropical Weather Forecast for Local Government

Global 15-Day tropical forecasts including probabilistic forecast tracks and storm surge prediction.

Features	Description	Coverage	File Formats
Storm Surge	Tropically induced coastal flooding forecasts up to 48 hours ahead of the storm	US	XML, SHP, KML, PNG
Tropical PHD	TWC proprietary 15-day probabilistic hurricane forecast	Worldwide	XML, SHP, KML, PNG

4.9   IBM Weather Imagery for Local Government

Aggregated available radar and satellite data. Radar data from throughout North America, Western Europe and Australia, and global satellite data.

Features	Description	Coverage	File Formats
Radar Images	Doppler radar images at various zoom levels (including city, state, regional, and national) updated every 5-15 minutes.	North America, Western Europe, Australia	Quad Key PNG
Satellite Images	Satellite images at various zoom levels and geographic sizes updated every 30-60 minutes	Worldwide	Quad Key PNG