

IBM Environmental Intelligence Suite

# GETTING STARTED GUIDE

Created for [Company Name]

# Introduction

**Thank you for choosing Environmental Intelligence Suite,  
helping you make critical weather-related decisions!**

In this guide, you will find the essential information needed to start the journey with IBM Environmental Intelligence Suite, such as API key credentials for Weather Data and the list of alert Perils you have access to.

IBM Environmental Intelligence Suite is a suite of applications based on the world's most accurate weather data from The Weather Company, as well as several petabytes of geospatial-temporal data from the Geospatial Analytics engine born out of IBM Research, which include a variety of industry-specialized data such as COVID-19 (epidemiology) and crop health (agriculture).

While this would equip you with the state-of-the-art weather technology and data science capabilities imperative in the era of machine learning and AI, our goal is to help you understand the data and its impact on your business and take actions to avoid disruptions and ensure business continuity. This is made possible through Dashboard Visualizations to extract insights in a user-friendly manner and through Alert Console to send out short- to long-term notifications and action items to the right people, at the right time.

We are constantly improving our product to best serve our clients as a reliable technology companion. If you have any questions or feedback, please do not hesitate to reach out to us.

We hope you're as excited as we to start your journey to discover the hidden truth behind how weather impacts your business and how to transform weather into your ally. As our colleague John Bosse (Offering Manager) tells our newly joined team members, "You will be a weather geek before you know it!"

**IBM Environmental Intelligence  
Suite**  
Offering Management Team



A photograph of two men in a meeting. One man, wearing a striped sweater, is writing on a whiteboard with a marker. The other man, in a blue shirt, is looking on. The whiteboard has some faint diagrams and text. A decorative network of white dots and lines is overlaid on the right side of the image.

## Table of Contents

- I. Create an IBM ID
- II. Dashboard Visualizations
- III. Geospatial Analytics
- IV. Alert Console
- V. APIs

## I. Create an IBMid (if you do not have one)

**Create your IBMid at** <https://ibm.co/2YZul1b>

The first step is getting your users set up with an IBMid. You can use your existing company email to serve as your IBMid. Skip this step and move on to the next section, if you already have an IBMid set up.

Once your IBMid is created, you can access [IBM Environmental Intelligence Suite](#) following the instructions in the next sections.

## II. Dashboard Visualizations

Access to the Dashboard Visualizations has been provisioned for the users requested.

### Step 1

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Click on the *Dashboard Visualizations* card from the Main Environmental Intelligence Suite screen at:

<http://weatheroperationscenter.ibm.com>

### Step 2

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Log in using your IBMid and password

### III. Geospatial Analytics

There are two ways in which you can access Geospatial Analytics.

First, you can use the browser-based Geospatial Analytics UI to explore the data catalog, view sample queries and build your own queries via a guided interface.

Second, you can use a Jupyter / Python notebook, or any program that can submit HTTPS requests, to interact with the Geospatial Analytics API.

#### Geospatial Analytics - UI

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Click on the *Geospatial Analytics* card from the [Main Environmental Intelligence Suite page](#).

Sign in with your IBMid and password.

#### Geospatial Analytics - API

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The Geospatial Analytics API key is used to retrieve an API access token.

Within the next several hours, the IBM Environmental Intelligence Suite access management team will send individual emails containing an API key to each person authorized to use the Geospatial Analytics API.

See the following documentation for more information.

[Geospatial Analytics API Authentication](#)

[Obtaining an API Access Token](#)

## IV. Alert Console

An automated email was already sent, asking you to click a link to confirm your identity for login to <https://myibm.ibm.com/>.

Once your account is confirmed, you will have access to Alert Console on <http://weatheroperationscenter.ibm.com>.

We have configured your account with the following weather Perils to start.

### Weather Perils Provisioned: Internal IBM Account (page 1)

Peril ID	Description
ACCUM_PRECIP_TOTAL_24HR_GTE_25.40_MM	Rainfall of 1 inch or more is forecast in the next 24 hours.
ACCUM_PRECIP_TOTAL_3HR_GTE_25.40_MM	Rainfall of 1 inch or more is forecast in the next 3 hours.
ACCUM_SNOW_TOTAL_12HR_GTE_0.08_M	Snow forecast of 3 inches or more in the next 12 hours.
ACCUM_SNOW_TOTAL_12HR_GTE_0.13_M	Snow forecast of 5 inches or more in the next 12 hours.
ACCUM_SNOW_TOTAL_24HR_GTE_0.025_M	Snow forecast of 1 inch or more in the next 24 hours.
CANADA_BLIZZARD_WARNING	A Blizzard Warning has been issued. Blowing snow from winds of 40 km/h or greater is expected reducing visibility to 400m or less over the next 4 hours.
CANADA_FREEZING_RAIN_WARNING	A Freezing Rain Warning has been issued. Freezing rain is expected to pose a hazard to transportation or property over the next few hours.
CANADA_RAINFALL_WARNING	A Rainfall Warning has been issued. Heavy downpours of rain are expected.
CANADA_SEVERE_THUNDERSTORM_WARNING	A Severe Thunderstorm Warning has been issued. Evidence of wind gusts of 90 km/h or greater along with 2cm or larger hail stones and heavy rain is imminent or occurring.
CANADA_SNOWFALL_WARNING	A Snowfall Warning has been issued. Major accumulations of snow are expected over the next several hours.
CANADA_TORNADO_WARNING	A Tornado Warning has been issued. A tornado has been reported; or when there is evidence based on radar, or from a reliable spotter that a tornado is imminent.
CANADA_WIND_WARNING	Wind Warning
CANADA_WINTER_STORM_WARNING	A Winter Storm Warning has been issued. Severe and potentially dangerous winter weather conditions are expected, including: Major snowfall of 25 cm or more combined with other cold weather precipitation types, strong winds, blowing snow, and/or extreme cold.
GLOBAL8_DENSE_FOG	Dense fog is expected for your area reducing visibilities to 0.8 km (0.5 miles) or less over the next 3 hours.
GLOBAL8_EXTREME_COLD	The feels like temperature is expected to drop below 25F (-4C) and is 20F (11C) or more below normal.
GLOBAL8_EXTREME_HEAT	The feels like temperature is expected to exceed 100F (38C) and is 20F (11C) or more above normal.
GLOBAL8_HEAVY_RAINFALL	Heavy rainfall of 2 inches or more is expected for your area over the next 12 hours.
GLOBAL8_HEAVY_SNOWFALL	Heavy snowfall is expected for your area over the next 12 hours.
GLOBAL8_ICE	Ice accumulation is expected for your area over the next 4 hours.
GLOBAL8_STRONG_WIND	Winds are expected to exceed 56 km/h (35 mph) over the next 6 hours.
GLOBAL8_THUNDERSTORM	Heavy thunderstorms are expected for your area.
HAIL_ZONE_30MIN_GTE1.00_IN	Hail greater than 1 inch in diameter is forecast to occur in your area within the next 30 minutes.
MAX_TEMP_24HR_GTE_310.93_K	Temperature forecast above 100F in the next 24 hours.



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### Weather Perils Provisioned: Internal IBM Account (page 2)

Peril ID	Description
METEOALARM_DISRUPTION_DUE_TO_AVALANCHE	A Meteoalarm disruption has been issued due to dangerous avalanche conditions.
METEOALARM_DISRUPTION_DUE_TO_EXTREME_HIGH_TEMPERATURES	A Meteoalarm disruption has been issued due to unusually high temperatures.
METEOALARM_DISRUPTION_DUE_TO_EXTREME_LOW_TEMPERATURES	A Meteoalarm disruption has been issued due to dangerously low temperatures.
METEOALARM_DISRUPTION_DUE_TO_FLOOD	A Meteoalarm Disruption has been issued due to the possibility of extensive flooding. Be on the lookout for rising waters.
METEOALARM_DISRUPTION_DUE_TO_FOG	Disruption due to fog
METEOALARM_DISRUPTION_DUE_TO_RAIN	Disruption due to rain
METEOALARM_DISRUPTION_DUE_TO_SNOW_AND_ICE	A Meteoalarm disruption has been issued due to dangerous conditions caused by snow and/or ice accumulations in the next 24 hours. Damage and casualties are likely to happen.
METEOALARM_DISRUPTION_DUE_TO_THUNDERSTORMS	A Meteoalarm Disruption has been issued due to dangerous thunderstorms that pose a threat to life and property.
METEOALARM_DISRUPTION_DUE_TO_WIND	Disruption due to wind
MIN_TEMP_24HR_LTE_273.15_K	Low temperature forecast below 32F in the next 24 hours.
NWS_BLIZZARD_WARNING	A Blizzard Warning has been issued to warn of snow/blowing snow causing 1/4 mile visibility or less and winds exceeding 35 mph within the next 12 to 18 hours.
NWS_DENSE_FOG_ADVISORY	A Dense Fog Advisory has been issued to warn of 1/4 mile or less visibility for 2 or more hours.
NWS_FFW	A Flash Flood Warning has been issued to warn when flash flooding is imminent or occurring.
NWS_FLOOD_WARNING	An Areal Flood Warning has been issued to warn of flooding over a large area including streets, low-lying areas, creeks, and small streams.
NWS_RED_FLAG_WARNING	A Red Flag Warning has been issued to alert fire officials and firefighters of potentially dangerous fire weather conditions within the next 12 to 24 hours.
NWS_SVR	A Severe Thunderstorm Warning has been issued for severe thunderstorms that are either occurring or are imminent. Winds of 58 mph or higher and/or hail 1" in diameter or larger are associated with these kind of storms.
NWS_TOR	A Tornado Warning has been issued. A tornado is imminent. Seek shelter immediately.
NWS_WIND_ADVISORY	A Wind Advisory has been issued. Sustained winds of 31 to 39 mph for at least 1 hour are expected and/or wind gusts of 46 to 57 mph for any duration are expected.
NWS_WINTER_STORM_WARNING	A Winter Storm Warning has been issued due to hazardous winter weather that is either occurring or is imminent. Significant snow/sleet/ice and wind can be associated with this storm.
NWS_WINTER_WEATHER_ADVISORY	A Winter Weather Advisory has been issued. Freezing rain and/or 2 to 4 inches of snow is expected causing significant inconveniences.



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### Weather Perils Provisioned: Internal IBM Account (page 3)

Peril ID	Description
THUNDERSTORM_INDEX_24_HR_3_OR_ABOVE	Severe thunderstorms are possible within the next 12 to 24 hours.
THUNDERSTORM_INDEX_24_HR_4_OR_ABOVE	Severe thunderstorms are likely within the next 12 to 24 hours.
THUNDERSTORM_INDEX_24_HR_5_OR_ABOVE	There is a high risk for severe thunderstorms within the next 12 to 24 hours.
US_CANADA_HAIL_30MIN_GTE1.00_IN	Hail greater than 1 inch in diameter is forecast to occur in your area within the next 30 minutes.
WIND_SPEED_SFC_12HR_GTE_13.41_MS	Wind speeds above 30 mph are forecast to occur in your area over the next 12 hours.
WIND_SPEED_SFC_12HR_GTE_17.88_MS	Wind speeds above 40 mph are forecast to occur in your area over the next 12 hours.
WIND_SPEED_SFC_12HR_GTE_22.35_MS	Wind speeds above 50 mph are forecast to occur in your area over the next 12 hours.
WIND_SPEED_SFC_12HR_GTE_26.82_MS	Wind speeds above 60 mph are forecast to occur in your area over the next 12 hours.

## IV. Alert Console

### Configuring the weather Perils via interface

1. Click on the *Alert Console* card from the Main Environmental Intelligence Suite page.
2. Log in with your IBMid
3. Click the "Configure" button in the left-hand navigation to go to the Configure Service screen
  - ✓ Under Alert Types, activate the available perils by clicking the toggle switch or peril name
  - ✓ Under Alert Messages, customize the Company Name

### Accessing the alerting/notification capabilities using an API

1. Click the API button in the left-hand navigation to access links to [API documentation](#) and [key management](#).
2. For a simple use case of sending alerts to a URL endpoint, you can use the API key and secret for your account and API documentation to:
  - ✓ Add a basic auth endpoint to receive alerts. The endpoint should be configured to recognize this JSON payload format ([Customer Endpoint Design](#) section).
  - ✓ Create an Asset (location) to monitor for alerts ([Create an Asset](#) section).
  - ✓ Assets can also be created by using the web-based dashboard at <https://myibm.ibm.com/>.

## V. Weather APIs

**Trial API Key:** [CLIENT API KEY]

This Component provides a trial API key for 50,000 daily API Calls and 100 calls per minute for internal development, non-production use only. Once the daily trial API Call limit is reached, the key is disabled for that day.

STANDARD					PREMIUM			DEVELOPMENT
INCLUDED - 1M API CALLS/MONTH ADD-ON - PER 1M API CALLS					NONE INCLUDED ADD-ON - PER 1M API CALLS			INCLUDED 1,000 CALLS PER DAY
CORE	ENHANCED CURRENT CONDITIONS	ENHANCED FORECAST	LIFESTYLE	HOD	AGRICULTURE	SEVERE WEATHER	HDAT-EXT	ALL STANDARD PREMIUM
Site Based Current Conditions	Currents on Demand  Personal Weather Station Observations	Precipitation Forecast  15 Minute Forecast  15 Day Hourly Forecast	Indices: Air Quality, Pollen, Flu Outbreak, Tides, Aches & Pains, Breathing, Dry Skin, Frizz, Frost Potential	Historical Weather Data on Demand	Reference Evapo Crop specific, Reference Evapo, Model Evapo, Soil Moisture, Soil Temperature	15 Day Cyclone Forecast  Shear, Hail, Rain, Snow, Ice	Solar Irradiance	
10-Day Daily Forecasts					RENEWABLES	PROBABILISTIC	Evapotranspiration	Enhanced Currents
48-Hr Hourly Forecasts					Wind Speed & Direction Air Density Irradiance	Distribution out 10 days  QPF Hourly Accumulated	Lifestyle	
Weather Alerts			Aviation	Core	SEASONAL	GEOSPATIAL	HOD	
Almanac					Seasonal & Sub- Seasonal	Geospatial Currents & Forecast Polygon / Gridded	Agriculture	
Weather Imagery including Radar and Satellite					Renewables			
Snow Depths								
								Lifestyle
								...

API Package	Documentation
Environmental Intelligence Suite – Standard	<a href="https://ibm.co/3ddEGm5">ibm.co/3ddEGm5</a>
Environmental Intelligence Suite – Premium	<a href="https://ibm.co/3jzc09t">ibm.co/3jzc09t</a>



## V. Weather APIs

These API endpoints tap into current and forecast conditions, seasonal and severe weather. The APIs are curated to give you only what you need in the format you need it, including alerts, notifications, forecast data, weather imagery, and damaging weather

### Standard APIs

**Core** Access many of the most essential weather APIs, ranging from current conditions and forecasts to radar and satellite data. Current conditions include site-based current observations and time series observations.

**Enhanced current conditions** Leverage data from one of the highest-resolution weather observation networks in the field based on a robust network of personal weather stations (PWSs) and traditional data sources (METAR and SYNOP). Also included is a Currents on Demand solution, an observed conditions data set covering the globe at a 4-km resolution with select variables downscaled to 500 m.

**Enhanced forecast** Use forecast models built using leading-edge model forecasting, expertise from over 100 meteorologists, and a network of observations, radar, and satellite assimilations and modelling capabilities.

**Lifestyle Indices** Air quality, pollen observations, flu outbreak observations, tides, aches and pains, breathing, dry skin, frizz, static electricity, frost potential, heating and cooling, golf, leisure travel, running, skiing, mosquito activity

**Historical weather data** More easily understand weather's impact on your business and better manage future outcomes with the industry's most precise and accurate historical record of weather data<sup>1</sup> that includes hourly values for surface temperature, wind speed and direction, relative humidity, atmospheric pressure, and dewpoint.

### Premium APIs

**Geospatial Currents and Forecast** Leveraging our 4-km resolution variables for currents and forecast, request KML or GeoJSON results back to integrate into GIS platforms for mass data analysis or consumption.

**Severe weather** Obtain real-time severe weather data related to tornadoes, high winds and hurricanes to assist you in protecting your assets by allowing you to stay ahead of adverse weather conditions and assess trailing damage estimates.

**Seasonal and subseasonal forecasts** Plan for market shifts that may affect profitability with forecasts that provide a comprehensive and detailed view of the anticipated temperature and precipitation anomalies over the next 3 – 5 weeks, 1 – 4 months and 1 – 7-months timeframes.

**Probabilistic** Make more informed decisions with the Probabilistic Forecast that helps users understand the likelihood of various weather events happening and their potential impact.

**Renewables** Predict and assess key weather parameter impacts on renewable energy production and efficiency with the Renewable Weather Data Package.

**Agriculture** Make more informed decisions with a robust set of agricultural specific APIs providing hourly forecasts out to 15 days, built using a weighted blend of the following weather models: GFS Operational & Ensemble, ECM Operational, NAM & IBM GRAF.

# Have Questions?

Send us an email at

[weathercustomersupport@ibm.com](mailto:weathercustomersupport@ibm.com)

**IBM**

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