Pulse PRO

API Technical Documentation

Pulse PRO API – Technical Documentation

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Introduction

This document is provided to Earth Networks / WeatherBug partners to help them understand the various options of content distribution and display using the Pulse API.

WeatherBug Icons

When providing WeatherBug Icons for depicting sky cover for current conditions the response shall check the local sunrise/sunset time in order to determine whether to return a day or night conditions icon value.

Bad or Missing Data Values

If a live observation is not available for a specific station, the Pulse API returns a "Null" value. It is possible that certain parameters will be returned if they are flagged via the EN QC processes. If a value is flagged then the corresponding QC Flags will also be present in the response.

REST API

The WeatherBug Web API gives Partners the flexibility to display Earth Networks / WeatherBug data in their desired configuration.

A request is made through a URL to the specified Earth Networks / WeatherBug server which returns either a JSON or XML document via HTTP. The data will vary according to the parameters passed, such as ZIP code.

The various JSON / XML documents returned include common attributes that are used throughout the various requests found in this document.

There are a number of possible data request types that can be made. Below is a full list with detailed explanations of the requested, required and optional parameters, as well as the format of the JSON or XML that is returned.

OAuth Security

Description:
OAuth is the security used for all Pulse API Packages. It is necessary to create and use the Access Token in every Pulse API request that is made. This Access Token must be hydrated or renewed every 24 hours or it will expire and the developer will not be able to obtain data via the API requests that are made.

Call Format:
https://thepulseapi.earthnetworks.com/oauth20/token?grant_type=client_credentials&client_id=<Consumer Key>& client_secret =<Secret Key>

Example:
https://thepulseapi.earthnetworks.com/oauth20/token?grant_type=client_credentials&client_id=KZ7mAIv49AbdoecEoMO1Dy23gf0rrDHp&client_secret=cFy71jSwicuZgfQp

Input Parameters:

- Consumer Key (Client ID) - required
- Secret Key (Client Secret) - required

Output:

- A JSON object containing Access Token.


```
{"OAuth20":{"access_token":{"token":"A2Rl8c0AAIa2U5mRnj8XRPDdvOtS","refresh_token":"A2Rl8c0AAIa2U5mRnj8XRPDdvOtS","token_type":"bearer","expires_in":86399}}}
```


Search Weather Station

Description:
The stations call provides access to the station list and allows for the entry of optional parameters to make a bounding box to get a list of stations within that area. If no latitude longitude is given then all stations are returned.

Parameters:
Access Token: must use the current access token on this request
Latitude: The integer latitude in decimal degrees (defaults to null)
Longitude: The integer longitude in decimal degrees (defaults to null)

Location (optional): Either an EarthNetworks city Id or a latitude longitude in the form lat,lon.

Parameters:
Access Token: must use the current access token on this request

Example 1:
A valid request and response with lat lon and default radius (15 miles)

Request:
https://thepulseapi.earthnetworks.com/getStationList/data/locations/v3/stationlist?latitude=39.1833&longitude=-77.2667&verbose=true&access_token=<access_token>

Response:


```
{
  "id": "f80c02a3-f71f-4654-8025-b65ce0393f77",
  "code": 200,
  "errorMessage": null,
  "result": {
    "Stations": [
      {
        "StationId": "CLRCH",
        "ProviderId": 3,
        "ProviderName": "Earth Networks Inc",
        "StationName": "Clarksburg Area HS",
        "Latitude": 39.2263888888889,
        "Longitude": -77.2636111111111,
        "ElevationAboveSeaLevel": null,
        "DisplayFlag": null
      },
      {
        "StationId": "PPIVA",
        "ProviderId": 3,
        "ProviderName": "Earth Networks Inc",
        "StationName": "Prototype Productions Inc PPI",
        "Latitude": 39.0208333333333,
        "Longitude": -77.4566666666667,
        "ElevationAboveSeaLevel": null,
        "DisplayFlag": null
      },
      {
        "StationId": "STRLI",
        "ProviderId": 3,
        "ProviderName": "Earth Networks Inc",
        "StationName": "NOVA Loudoun Campus",
        "Latitude": 39.0208333333333,
        "Longitude": -77.3838888888889,
        "ElevationAboveSeaLevel": null,
        "DisplayFlag": null
      }
}
```

Location Search

Description:
The location search provides the details for a single specific station similar to station list.

Parameters:
Access Token: must use the current access token on this request
Search String: can this be zip or city name or city code

Request:
https://thepulseapi.earthnetworks.com/getLocations/data/locations/v2/location?cultureInfo=en-us&searchString=86503&verbose=true&maxresults=20&access_token=<access_token>

Response:


```
[
  {
    "CityId": "US04C0012",
    "CityName": "Chinle",
    "Territory": "Arizona",
    "StateCode": "AZ",
    "Country": "US",
    "Latitude": 36.1209,
    "Longitude": -109.5237,
    "Dma": "790",
    "Zip": "86503"
  },
  {
    "CityId": "US04T0015",
    "CityName": "Tsaile",
    "Territory": "Arizona",
    "StateCode": "AZ",
    "Country": "US",
    "Latitude": 36.3243,
    "Longitude": -109.269,
    "Dma": "790",
    "Zip": "86556"
  },
  {
    "CityId": "US04N0002",
    "CityName": "Nazlini",
    "Territory": "Arizona",
    "StateCode": "AZ",
    "Country": "US",
    "Latitude": 35.8982,
    "Longitude": -109.446,
    "Dma": "790",
    "Zip": "86540"
  },
  {
    "CityId": "US04L0008",
    "CityName": "Lukachukai",
```

```
    "Territory": "Arizona",
    "StateCode": "AZ",
    "Country": "US",
    "Latitude": 36.3989,
    "Longitude": -109.2586,
    "Dma": "790",
    "Zip": "86507"
  }
]
```


Real Time Weather Observations

Description:
The Earth Networks Observation Data Feed will provide you with a set of current condition data based on the location requested. Logic is in place to always return the best observation for the location requested based on age, distance and accuracy.

Parameters for Latitude/Longitude:

Parameter Name	**Required (R) or Optional (O)**	**Description**	**Input options**	**Default**
location	R	Latitude and Longitude Coordinates	Must be valid Latitude/Longitude in format: "<Latitude>,<Longitude>"	N/A
units	O	Metric or English units	"metric" or "english"	"metric"
cultureinfo	O	Language	"en-en" (English), "es-es" (Spanish), or "fr-fr" (French)	"en-en"
verbose	O	Abbreviations (false) or long variable names (true)	"false" or "true"	"false"
access_token	R	The access token returned from OAuth call	Must match given token	N/A

Parameters for StationId:

Parameter Name	Required (R) or Optional (O)	Description	Input options	Default
providerid	R	Provider the station is part of	Must be valid ID from Search Station API	N/A
stationid	R	Identifier for station	Must be valid ID from Search Station API	NA
units	O	Metric or English units	“metric” or “english”	“metric”
cultureinfo	O	Language	“en-en” (English), “es-es” (Spanish), or “fr-fr” (French)	“en-en”
verbose	O	Abbreviations (false) or long variable names (true)	“false” or “true”	“false”
access_token	R	The access token returned from OAuth call	Must match given token	N/A

Latitude/Longitude Request:
https://thepulseapi.earthnetworks.com/data/observations/v1/current?location=<location>&locationtype=latitudelongitude&units=<units>&cultureinfo=<cultureinfo>&verbose=<verbose>&access_token=<access token>

Latitude/Longitude Example (using real coordinates and invalid example access token “piR0mwXWhyOrKDQcOszkNZqzCcJr”):
https://thepulseapi.earthnetworks.com/data/observations/v1/current?location=39.1,-77.1&locationtype=latitudelongitude&units=english&cultureinfo=en-en&verbose=true&access_token=piR0mwXWhyOrKDQcOszkNZqzCcJr

StationId Request:
https://thepulseapi.earthnetworks.com/data/observations/v1/current?providerid=<providerid>&stationid=<stationid>&units=<units>&cultureinfo=<cultureinfo>&verbose=<verbose>&access_token=<access token>

StationId Example (using real coordinates and invalid example access token “piR0mwXWhyOrKDQcOszkNZqzCcJr”):
https://thepulseapi.earthnetworks.com/data/observations/v1/current?providerid=3&stationid=CNTQC&units=metric&cultureinfo=en-en&verbose=true&access_token=piR0mwXWhyOrKDQcOszkNZqzCcJr

Response:


```
{
  "key": null,
  "stationId": "REKVL",
  "providerId": 3,
  "observationTimeLocalStr": "2014-01-29T15:05:58",
  "observationTimeUtcStr": "2014-01-29T20:05:58",
  "iconCode": null,
  "altimeter": null,
  "altimeterRate": null,
  "dewPoint": -2.0,
  "dewPointRate": null,
  "heatIndex": 20.7,
  "humidity": 36.0,
  "humidityRate": -2.8,
  "pressureSeaLevel": 30.22,
  "pressureSeaLevelRate": -0.02,
  "rainDaily": 0.0,
  "rainRate": 0.0,
  "rainMonthly": 1.67,
  "rainYearly": 1.67,
  "snowDaily": null,
  "snowRate": null,
  "snowMonthly": null,
  "snowYearly": null,
  "temperature": 20.7,
  "temperatureRate": 2.0,
  "visibility": null,
  "visibilityRate": null,
  "windChill": 14.2,
  "windSpeed": 4.6,
  "windDirection": 276,
  "windSpeedAvg": 3.7,
  "windDirectionAvg": 273,
  "windGustHourly": 17.5,
  "windGustTimeLocalHourlyStr": "2014-01-29T14:20:00",
  "windGustTimeUtcHourlyStr": "2014-01-29T19:20:00",
  "windGustDirectionHourly": 273,
  "windGustDaily": 17.8,
  "windGustTimeLocalDailyStr": "2014-01-29T11:04:00",
  "windGustTimeUtcDailyStr": "2014-01-29T16:04:00",
  "windGustDirectionDaily": 251,
  "observationTimeAdjustedLocalStr": "2014-01-29T15:06:36",
  "feelsLike": 14.2
}
```


Observation Variables:

The table below outlines the Observation variables contained within the Observation data feed. It also defines the units, format, min/max values, and precision for each variable.

Please note that extensive quality control measures of the data will be implemented to ensure that data values are reasonable. While rare, it is possible that data may occasionally be missing in the Observation Data Feed. If the data is missing, it will be saved as "Null". A null space is defined as being this: Null = ' '.

Table 1: The Earth Networks Observation Data Feed Version 1.0

Variable Field (short/long)	Variable Name	Units (Metric/English)	Format	Min Value	Max Value	Precision
k/key	Key	-	(always null)	-	-	-
si/stationId	Station ID	Text	4 or 5 Characters	N/A	N/A	4 or 5 Characters
pi/providerId	Provider ID	Whole Number	1 or 2 Digits	N/A	N/A	Whole Number
otls/observationTimeLocalStr	Observation Time, Local	Text/Local Time Zone of Station	yyyy-MM-ddThh:mm:ss	1969-12-31T19:00:00	Present Time	1 second
otus/observationTimeUtcStr	Observation Time, UTC	Text/Universal Time Zone	yyyy-MM-ddThh:mm:ss	1970-11-01T00:00:00	Present Time	1 second
Ic/iconCode	Icon Code	Whole Number	1 to 3 Digits	000	282	Whole Number
a/altimeter	Altimeter	(Millibars/inches of Mercury)	####	N/A	N/A	1 millibar/0.01 inches of Mercury
ar/alimeterRate	Altimeter Rate	(Millibars/inches of Mercury) per hour	##/-##	N/A	N/A	1 millibar/0.01 inches of Mercury

						per hour
dp/dewPoint	Dew Point	Degrees (Celsius/Fahrenheit)	##.#/-##.#	-100	100	0.1 degrees
dpr/dewPointRate	Dew Point Rate	Degrees (Celsius/Fahrenheit) per hour	##.#/-##.#	N/A	N/A	0.1 degrees per hour
hi/heatIndex	Heat Index	Degrees (Celsius/Fahrenheit)	##.#/-##.#	-100	100	0.1 degrees
h/humidity	Humidity	Percent relative humidity	##.#	0	100	0.1 percent
hr/humidityRate	Humidity Rate	Change per hour of percent relative humidity	##.#/-##.#	-100	100	0.1 percent per hour
psl/pressureSeaLevel	Sea Level Pressure	(Millibars/inches of Mercury)	####	N/A	N/A	1 millibar/0.01 inches of Mercury
pslr/pressureSeaLevelRate	Sea Level Pressure Rate	(Millibars/inches of Mercury) per hour	##/-##	N/A	N/A	1 millibar/0.01 inches of Mercury per hour
rd/rainDaily	Daily Rain	(Millimeters/Inches)	###.#	0	N/A	0.1 millimeters / 0.01 inches
rr/rainRate	Rain Rate	(Millimeters/Inches) per hour	###.#	0	N/A	0.1 millimeters / 0.01 inches per hour
rm/rainMonthly	Monthly Rain	(Millimeters/Inches)	###.#	0	N/A	0.1 millimeters / 0.01 inches
ry/rainYearly	Yearly Rain	(Millimeters/Inches)	###.#	0	N/A	0.1

						millimeters / 0.01 inches
sd/snowDaily	Daily Snow	(Millimeters/Inches)	###.#	0	N/A	0.1 millimeters / 0.01 inches
sr/snowRate	Snow Rate	(Millimeters/Inches) per hour	###.#	0	N/A	*0.1 millimeters / 0.01 inches per hour*
sm/snowMonthly	Monthly Snow	(Millimeters/Inches)	###.#	0	N/A	*0.1 millimeters / 0.01 inches*
sy/snowYearly	Yearly Snow	(Millimeters/Inches)	###.#	0	N/A	0.1 millimeters / 0.01 inches
t/temperature	Temperature	Degrees (Celsius/Fahrenheit)	##.#/-##.#	-100	100	0.1 degrees
tr/temperatureRate	Temperature Rate	Degrees (Celsius/ Fahrenheit) per hour	##.#/-##.#		N/A	0.1 degrees per hour
v/visibility	Visibility	Kilometers/Miles	##.#	0	N/A	0.1 kilometers / 0.1 miles
vr/visibilityRate	Visibility Rate	Kilometers/Miles per hour	##.#	0	N/A	0.1 kilometers / 0.1 miles per hour
wc/windChill	Wind Chill	Degrees (Celsius/Fahrenheit)	##.#/-##.#	-100	100	0.1 degrees
ws/windSpeed	Wind Speed	Kilometers/Miles per hour	##.#		N/A	0.1 kilometers / 0.1 miles

						per hour
wd/windDirection	Wind Direction	Degrees from north (clockwise)	###	0	359	1 degree
wsa/windSpeedAverage	Average Wind Speed	Kilometers/Miles per hour	##.#	N/A	N/A	0.1 kilometers / 0.1 miles per hour
wda/windDirectionAverage	Average Wind Direction	Degrees from north (clockwise)	###	0	359	1 degree
wgh/windGustHourly	Hourly Wind Gust	Kilometers/Miles per hour	##.#	0	N/A	0.1 kilometers / 0.1 miles per hour
wgtlhs/ windGustTimeLocalHourlyStr	Hourly Wind Gust Time, Local	Text/Local Time Zone of Station	yyyy-MM-ddThh:mm:ss	1969-12-31T19:00:00	Present Time	1 second
wgtuhs/ windGustTimeUtcHourlyStr	Hourly Wind Gust Time, UTC	Text/Universal Time Zone	yyyy-MM-ddThh:mm:ss	1970-11-01T00:00:00	Present Time	1 second
wgdh/ windGustDirectionHourly	Hourly Wind Gust Direction	Degrees from north (clockwise)	###	0	359	1 degree
wgd/windGustDaily	Daily Wind Gust	Kilometers/Miles per hour	##.#	0	N/A	0.1 kilometers / 0.1 miles per hour
wgtlds/ windGustTimeLocalDailyStr	Daily Wind Gust Time, Local	Text/Local Time Zone of Station	yyyy-MM-ddThh:mm:ss	1969-12-31T19:00:00	Present Time	1 second
wgtuds/ windGustTimeUtcDailyStr	Daily Wind Gust Time, UTC String	Text/Universal Time Zone	yyyy-MM-ddThh:mm:ss	1970-11-01T00:00:00	Present Time	1 second
wgdd/ windGustDirectionDaily	Daily Wind Gust Direction	Degrees from north (clockwise)	###	0	359	1 degree
fl/feelsLike	Feels Like (Heat Index/Wind Chill)	Degrees (Celsius/Fahrenheit)	##.#/-##.#	-100	100	0.1 degrees

Table 2: Wind Direction Descriptor Lookup Table

Compass Wind Direction	Wind Direction	Wind Direction Abbreviation
349-359 or 0-11	north	N
12-34	north-northeast	NNE
35-56	northeast	NE
57-78	east-northeast	ENE
79-101	east	E
102-123	east-southeast	ESE
124-146	southeast	SE
147-168	south-southeast	SSE
169-191	south	S
192-213	south-southwest	SSW
214-236	southwest	SW
237-258	west-southwest	WSW
259-281	west	W
282-303	west-northwest	WNW
304-326	northwest	NW
327-348	north-northwest	NNW

Table 3: Icon Code and Description Name

Icon Code	Icon Description	Day or Night
000	Clear	Day
001	Cloudy	Day
002	Partly Cloudy	Night
003	Partly Cloudy	Day
004	Partly Sunny	Day
005	Rain	Day
006	Thunderstorms	Day
007	Sunny	Day
008	Snow	Day
009	Flurries	Day

010	Unknown	Day
011	Chance of Snow	Day
012	Snow	Night
013	Cloudy	Night
014	Rain	Night
015	Chance of Rain	Night
016	Partly Cloudy	Night
017	Clear	Night
018	Thunderstorms	Night
019	Chance of Flurries	Day
020	Chance of Rain	Day
021	Chance of Sleet	Day
022	Chance of Storms	Day
023	Hazy	Day
024	Mostly Cloudy	Day
025	Sleet	Day
026	Mostly Sunny	Day
027	Chance of Flurries	Night
028	Chance of Sleet	Night
029	Chance of Snow	Night
030	Chance of Storms	Night
031	Clear	Night
032	Flurries	Night
033	Hazy	Night
034	Mostly Cloudy	Day
035	Mostly Sunny	Day
036	Sleet	Night
037	Unknown	Night
038	Chance of Rain Showers	Day
039	Chance of Snow Showers	Day
040	Snow Showers	Day
041	Rain Showers	Day
042	Chance of Rain Showers	Night
043	Chance of Snow Showers	Night
044	Snow Showers	Night
045	Rain Showers	Night
046	Freezing Rain	Day
047	Freezing Rain	Night
048	Chance of Freezing	Day

	Rain	
049	Chance of Freezing Rain	Night
050	Windy	Day
051	Foggy	Day
052	Scattered Showers	Day
053	Scattered Thunderstorms	Day
054	Light Snow	Day
055	Chance of Light Snow	Day
056	Frozen Mix	Day
057	Chance of Frozen Mix	Day
058	Drizzle	Day
059	Chance of Drizzle	Day
060	Freezing Drizzle	Day
061	Chance of Freezing Drizzle	Day
062	Heavy Snow	Day
063	Heavy Rain	Day
064	Hot and Humid	Day
065	Very Hot	Day
066	Increasing Clouds	Day
067	Clearing	Day
068	Mostly Cloudy	Day
069	Very Cold	Day
070	Mostly Clear	Night
071	Increasing Clouds	Night
072	Clearing	Night
073	Mostly Cloudy	Night
074	Very Cold	Night
075	Warm and Humid	Night
076	Now	Day
077	Exclamation	Day
078	30% Chance of Snow	Day
079	40% Chance of Snow	Day
080	50% Chance of Snow	Day
081	30% Chance of Rain	Night
082	40% Chance of Rain	Night
083	50% Chance of Rain	Night
084	30% Chance of Flurries	Day
085	40% Chance of Flurries	Day

086	50% Chance of Flurries	Day
087	30% Chance of Rain	Day
088	40% Chance of Rain	Day
089	50% Chance of Rain	Day
090	30% Chance of Sleet	Day
091	40% Chance of Sleet	Day
092	50% Chance of Sleet	Day
093	30% Chance of Storms	Day
094	40% Chance of Storms	Day
095	50% Chance of Storms	Day
096	30% Chance of Flurries	Night
097	40% Chance of Flurries	Night
098	50% Chance of Flurries	Night
099	30% Chance of Sleet	Night
100	40% Chance of Sleet	Night
101	50% Chance of Sleet	Night
102	30% Chance of Snow	Night
103	40% Chance of Snow	Night
104	50% Chance of Snow	Night
105	30% Chance of Storms	Night
106	40% Chance of Storms	Night
107	50% Chance of Storms	Night
108	30% Chance Rain Showers	Day
109	40% Chance Rain Showers	Day
110	50% Chance Rain Showers	Day
111	30% Chance Snow Showers	Day
112	40% Chance Snow Showers	Day
113	50% Chance Snow	Day

	Showers	
114	30% Chance Rain Showers	Night
115	40% Chance Rain Showers	Night
116	50% Chance Rain Showers	Night
117	30% Chance Snow Showers	Night
118	40% Chance Snow Showers	Night
119	50% Chance Snow Showers	Night
120	30% Chance Freezing Rain	Day
121	40% Chance Freezing Rain	Day
122	50% Chance Freezing Rain	Day
123	30% Chance Freezing Rain	Night
124	40% Chance Freezing Rain	Night
125	50% Chance Freezing Rain	Night
126	30% Chance Light Snow	Day
127	40% Chance Light Snow	Day
128	50% Chance Light Snow	Day
129	30% Chance Frozen Mix	Day
130	40% Chance Frozen Mix	Day
131	50% Chance Frozen Mix	Day
132	30% Chance of Drizzle	Day
133	40% Chance of Drizzle	Day
134	50% Chance of Drizzle	Day

135	30% Chance Freezing Drizzle	Day
136	40% Chance Freezing Drizzle	Day
137	50% Chance Freezing Drizzle	Day
138	Chance of Snow	Day
139	Chance of Rain	Day
140	Chance of Flurries	Day
141	Chance of Rain	Day
142	Chance of Sleet	Day
143	Chance of Storms	Day
144	Chance of Flurries	Day
145	Chance of Sleet	Day
146	Chance of Snow	Day
147	Chance of Storms	Day
148	Chance of Rain Showers	Day
149	Chance of Snow Showers	Day
150	Chance of Rain Showers	Day
151	Chance of Snow Showers	Day
152	Chance of Freezing Rain	Day
153	Chance of Freezing Rain	Day
154	Chance of Light Snow	Day
155	Chance of Frozen Mix	Day
156	Chance of Drizzle	Day
157	Chance of Freezing Drizzle	Day
158	Windy	Night
159	Foggy	Night
160	Light Snow	Night
161	Frozen Mix	Night
162	Drizzle	Night
163	Heavy Rain	Night
164	Chance of Frozen Mix	Night
165	Chance of Drizzle	Night
166	Chance of Frozen Drizzle	Night

167	30% Chance of Drizzle	Night
168	30% Chance Frozen Drizzle	Night
169	30% Chance Frozen Mix	Night
170	40% Chance of Drizzle	Night
171	40% Chance Frozen Drizzle	Night
172	40% Chance Frozen Mix	Night
173	50% Chance of Drizzle	Night
174	50% Chance Frozen Drizzle	Night
175	50% Chance Frozen Mix	Night
176	Chance of Light Snow	Night
177	30% Chance Light Snow	Night
178	40% Chance Light Snow	Night
179	50% Chance Light Snow	Night
180	Scattered Thunderstorms	Day
181	Freezing Drizzle	Night
182	Scattered Showers	Night
183	Scattered Thunderstorms	Night
184	Warm and Humid	Night
185	60% Chance of Snow	Day
186	70% Chance of Snow	Day
187	80% Chance of Snow	Day
188	60% Chance of Rain	Night
189	70% Chance of Rain	Night
190	80% Chance of Rain	Night
191	60% Chance of Flurries	Day
192	70% Chance of Flurries	Day
193	80% Chance of	Day

	Flurries	
194	60% Chance of Rain	Day
195	70% Chance of Rain	Day
196	80% Chance of Rain	Day
197	60% Chance of Sleet	Day
198	70% Chance of Sleet	Day
199	80% Chance of Sleet	Day
200	60% Chance of Storms	Day
201	70% Chance of Storms	Day
202	80% Chance of Storms	Day
203	60% Chance of Flurries	Night
204	70% Chance of Flurries	Night
205	80% Chance of Flurries	Night
206	60% Chance of Sleet	Night
207	70% Chance of Sleet	Night
208	80% Chance of Sleet	Night
209	60% Chance of Snow	Night
210	70% Chance of Snow	Night
211	80% Chance of Snow	Night
212	60% Chance of Storms	Night
213	70% Chance of Storms	Night
214	80% Chance of Storms	Night
215	60% Chance Rain Showers	Day
216	70% Chance Rain Showers	Day
217	80% Chance Rain Showers	Day
218	60% Chance Snow Showers	Day
219	70% Chance Snow Showers	Day
220	80% Chance Snow Showers	Day

221	60% Chance Rain Showers	Night
222	70% Chance Rain Showers	Night
223	80% Chance Rain Showers	Night
224	60% Chance Snow Showers	Night
225	70% Chance Snow Showers	Night
226	80% Chance Snow Showers	Night
227	60% Chance Freezing Rain	Day
228	70% Chance Freezing Rain	Day
229	80% Chance Freezing Rain	Day
230	60% Chance Freezing Rain	Night
231	70% Chance Freezing Rain	Night
232	80% Chance Freezing Rain	Night
233	60% Chance Light Snow	Day
234	70% Chance Light Snow	Day
235	80% Chance Light Snow	Day
236	60% Chance Frozen Mix	Day
236	70% Chance Frozen Mix	Day
238	80% Chance Frozen Mix	Day
239	60% Chance of Drizzle	Day
240	70% Chance of Drizzle	Day
241	80% Chance of Drizzle	Day
242	60% Chance Freezing	Day

	Drizzle	
243	70% Chance Freezing Drizzle	Day
244	80% Chance Freezing Drizzle	Day
245	60% Chance Light Snow	Night
246	70% Chance Light Snow	Night
247	80% Chance Light Snow	Night
248	60% Chance Frozen Mix	Night
249	70% Chance Frozen Mix	Night
250	80% Chance Frozen Mix	Night
251	Chance of Light Rain	Night
252	30% Chance of Light Rain	Night
253	40% Chance of Light Rain	Night
254	50% Chance of Light Rain	Night
255	60% Chance of Light Rain	Night
256	70% Chance of Light Rain	Night
257	80% Chance of Light Rain	Night
258	Light Rain	Night
259	Chance of Light Rain	Day
260	30% Chance of Light Rain	Day
261	40% Chance of Light Rain	Day
262	50% Chance of Light Rain	Day
263	60% Chance of Light Rain	Day
264	70% Chance of Light Rain	Day
265	80% Chance of Light	Day

	Rain	
266	Light Rain	Day
267	Heavy Snow	Night
268	Chance of Heavy Snow	Night
269	30 % Chance of Heavy Snow	Night
270	40% Chance of Heavy Snow	Night
271	50% Chance of Heavy Snow	Night
272	60% Chance of Heavy Snow	Night
273	70% Chance of Heavy Snow	Night
274	80% Chance of Heavy Snow	Night
275	Heavy Snow	Day
276	Chance of Heavy Snow	Day
277	30% Chance of Heavy Snow	Day
278	40% Chance of Heavy Snow	Day
279	50% Chance of Heavy Snow	Day
280	60% Chance of Heavy Snow	Day
281	70% Chance of Heavy Snow	Day
282	80% Chance of Heavy Snow	Day

Request:
https://thepulseapi.earthnetworks.com/data/observations/v1/current?location=<location>&locationtype=latitudelongitude&units=<units>&cultureinfo=<cultureinfo>&verbose=<verbose>&access_token=<access token>

10 Day-Night Forecast

Description:
The Earth Networks ENCast City 10 Day-Night Forecast Feed provides a descriptive day and night period forecast covering the next 10 days. The day period of the forecast is considered to be 7am-7pm local time, while the night period of the forecast is considered to be the hours straddling the date change from 7pm to 7am local time.

This forecast will be available for 2.6 million cities across the entire globe and will be available in multiple languages.

The forecast will be updated twice per day by 09:30 UTC and 21:30 UTC.

Important: Please note that all the data is sent in metric units (note units and precision shown in Table 1.) and decimal points should be respected when doing conversions to English units.

Request:
https://thepulseapi.earthnetworks.com/data/forecasts/v1/daily?location=<location>&locationtype=<locationtype>&units=<units>&cultureinfo=<cultureinfo>&verbose=<verbose>&access_token=<access token>

Example for forecast data by City ID (using real EN City ID and valid example access token "piRomwXWhyOrKDQcOszkNZqzCcJr"):
https://thepulseapi.earthnetworks.com/data/forecasts/v1/daily?location=US01O0007&locationtype=city&units=english&cultureinfo=en-en&verbose=true&access_token=piRomwXWhyOrKDQcOszkNZqzCcJr

Response:


```
{
  "dailyForecastPeriods": [
    {
      "cloudCoverPercent": 100,
      "dewPoint": 10.4,
      "iconCode": 24,
      "precipCode": 2,
      "precipProbability": 0,
      "relativeHumidity": 55,
      "summaryDescription": "Mostly Cloudy",
      "temperature": 28.0,
      "thunderstormProbability": 0,
      "windDirectionDegrees": 357,
      "windSpeed": 8.9,
```

```
      "detailedDescription": "Mostly cloudy. Highs in the upper 20s. North
winds 5 to 10 mph. ",
      "forecastDateLocalStr": "2014-01-29T07:00:00",
      "forecastDateUtcStr": "2014-01-29T13:00:00Z",
      "isNightTimePeriod": false
    },
    {
      "cloudCoverPercent": 20,
      "dewPoint": 8.6,
      "iconCode": 73,
      "precipCode": 2,
      "precipProbability": 0,
      "relativeHumidity": 63,
      "summaryDescription": "Mostly Cloudy",
      "temperature": 11.0,
      "thunderstormProbability": 0,
      "windDirectionDegrees": 12,
      "windSpeed": 11.2,
      "detailedDescription": "Mostly cloudy in the evening then clearing. Lows
around 11. North winds around 5 mph. ",
      "forecastDateLocalStr": "2014-01-29T19:00:00",
      "forecastDateUtcStr": "2014-01-30T01:00:00Z",
      "isNightTimePeriod": true
    },
    {
      "cloudCoverPercent": 0,
      "dewPoint": 17.6,
      "iconCode": 7,
      "precipCode": 3,
      "precipProbability": 0,
      "relativeHumidity": 54,
      "summaryDescription": "Sunny",
      "temperature": 47.0,
      "thunderstormProbability": 0,
      "windDirectionDegrees": 76,
      "windSpeed": 6.7,
      "detailedDescription": "Not as cool. Sunny. Highs in the upper 40s. East
winds around 5 mph. ",
      "forecastDateLocalStr": "2014-01-30T07:00:00",
      "forecastDateUtcStr": "2014-01-30T13:00:00Z",
      "isNightTimePeriod": false
    },
    {
      "cloudCoverPercent": 0,
      "dewPoint": 21.2,
      "iconCode": 31,
      "precipCode": 3,
      "precipProbability": 0,
      "relativeHumidity": 78,
      "summaryDescription": "Clear",
      "temperature": 28.0,
      "thunderstormProbability": 0,
      "windDirectionDegrees": 101,
      "windSpeed": 8.9,
      "detailedDescription": "Not as cold. Clear. Lows in the mid 20s. Light
winds. ",
      "forecastDateLocalStr": "2014-01-30T19:00:00",
```

```
      "forecastDateUtcStr": "2014-01-31T01:00:00Z",
      "isNightTimePeriod": true
    },
    {
      "cloudCoverPercent": 39,
      "dewPoint": 33.8,
      "iconCode": 7,
      "precipCode": 3,
      "precipProbability": 10,
      "relativeHumidity": 64,
      "summaryDescription": "Sunny",
      "temperature": 62.0,
      "thunderstormProbability": 0,
      "windDirectionDegrees": 113,
      "windSpeed": 4.5,
      "detailedDescription": "Not as cool. Sunny. Highs in the lower 60s. South
winds around 5 mph. ",
      "forecastDateLocalStr": "2014-01-31T07:00:00",
      "forecastDateUtcStr": "2014-01-31T13:00:00Z",
      "isNightTimePeriod": false
    }
    }
```


Forecast Variables: Table 1 below outlines the forecast variables contained within the ENCast City 10 Day-Night Forecast Feed Version 1.0. It defines the units, format, min/max values, and precision for each variable.

Please note that extensive quality control measures of the data will be implemented to ensure that data values are reasonable. While rare, it is possible that data may occasionally be missing in the forecast file. If the data is missing, it will be saved as "Null". A null space is defined as: Null = ' '.

Table: The Earth Networks 10 Day-Night Forecast

Variable Field (abbreviation/long name)	Variable Name	Units	Format	Min Value	Max Value	Precision
ccp/cloudCoverPercent	Cloud Cover Percentage	%	Whole Number	0	100	Whole Number
dp/dewPoint	Dew Point	Degrees Fahrenheit/ Celsius	Whole Number	-100	150	.1
ic/iconCode	Icon Code	Number	Whole Number	000	282	Whole Number
pc/precipCode	Precipitation Code	Number	Whole Number	0	6	Whole Number
pp/precipProbability	Precipitation Probability	%	Whole Number	0	100	Whole Number
rh/relativeHumidity	Relative Humidity	%	Whole Number	0	100	Whole Number
sd/summaryDescription	Summary Description	Text	Brief Phrase	N/A	N/A	N/A
t/temperature	Temperature (High/Low depending on	Degrees Fahrenheit/	Decimal	-100	150	.1

	Day/Night)	Celsius				
tp/ thunderstormProbability	Thunderstorm Probability	%	Whole Number	0	100	Whole Number
wdd/ windDirectionDegrees	Wind Direction	Degrees from North	Whole Number	0	359	Whole Number
ws/windSpeed	Wind Speed	Miles/ Kilometers Per Hour	Decimal	0	200	.1
dd/detailedDescription	Detailed Description	Text	Brief Sentences	N/A	N/A	N/A
fdls/ forecastDateLocalStr	Forecast Date, Local Time	Time	YYYY-MM-DD T HH:MM:SS	1969-12-31T19:00	Present Time	N/A
fdus/forecastDateUtcStr	Forecast Date, UTC Time	Time	YYYY-MM-DD T HH:MM:SS Z	1970-01-01T00:00 Z	Present Time	N/A
intp/isNightTimePeriod	Is Night Time Period	Boolean	true/false	N/A	N/A	N/A

Table: The Earth Networks 10 Day-Night Forecast Variable Valid Times and Descriptions

"Day" Valid Time = 700 – 1900 Local Time
"Night" Valid Time = 1900 –700 Local Time
(reflected in Is Night Time Period variable)

Variable Name (Expected by EN)	Units (Metric/English)	Data Description (period = Day/Night depending on time)
Temp, Day	Degrees (Celsius/Fahrenheit)	High during Day
Temp, Night	Degrees (Celsius/Fahrenheit)	Low during Night
Dew Point	Degrees (Celsius/Fahrenheit)	Average value during period
Relative Humidity	%	Average value during period
Wind Speed	(Kilometers/Miles) Per Hour	Average value during period
Wind Direction	Degrees from North 0-359	Average value during period
Cloud Cover	%	Average value during period
Precipitation Probability	%	Max value during period – probability of .01" or more of precipitation occurring at the forecast point
Precipitation Type	Code 0-6	Type of precipitation expected during period
Thunderstorm Probability	%	Max value during period – probability of thunder being heard at the forecast point

Table: Precipitation Type Code Definitions

CODE	Precip Type
0	no precipitation
1	rain
2	snow
3	rain-snow mix
4	sleet
5	freezing rain
6	frozen mix

Table: Precipitation Chance Descriptor Lookup Table

% Chance	Snow/Rain/Ice Descriptor	Thunderstorm Descriptor
0-10	no chance	none
11-20	slight chance	isolated
21-30	slight chance	widely scattered
31-40	chance	scattered
41-50	chance	scattered
51-60	chance	scattered
61-70	probable	numerous
71-80	probable	numerous
81-90	likely	widespread
91-100	likely	widespread

Table: Cloud Cover Descriptor Lookup Table

Cloud Cover %	Cloud Cover (Day)	Cloud Cover (Night)
0-9	sunny	clear
10-29	mostly sunny	mostly clear
10-29	mostly sunny	mostly clear
30-69	partly cloudy	partly cloudy
30-69	partly cloudy	partly cloudy
30-69	partly cloudy	partly cloudy
70-89	mostly cloudy	mostly cloudy
70-89	mostly cloudy	mostly cloudy
90-100	cloudy	cloudy

Table: Wind Direction Descriptor Lookup Table

Compass Wind Direction	Wind Direction	Wind Direction Abbreviation
349-359 or 0-11	north	N
12-34	north-northeast	NNE
35-56	northeast	NE
57-78	east-northeast	ENE
79-101	east	E
102-123	east-southeast	ESE
124-146	southeast	SE
147-168	south-southeast	SSE
169-191	south	S
192-213	south-southwest	SSW
214-236	southwest	SW
237-258	west-southwest	WSW
259-281	west	W
282-303	west-northwest	WNW
304-326	northwest	NW
327-348	north-northwest	NNW

Table: Icon Code and Description Name

Icon Code	Icon Description	Day or Night
000	Clear	Day
001	Cloudy	Day
002	Partly Cloudy	Night
003	Partly Cloudy	Day
004	Partly Sunny	Day
005	Rain	Day
006	Thunderstorms	Day
007	Sunny	Day
008	Snow	Day
009	Flurries	Day
010	Unknown	Day
011	Chance of Snow	Day
012	Snow	Night
013	Cloudy	Night
014	Rain	Night

015	Chance of Rain	Night
016	Partly Cloudy	Night
017	Clear	Night
018	Thunderstorms	Night
019	Chance of Flurries	Day
020	Chance of Rain	Day
021	Chance of Sleet	Day
022	Chance of Storms	Day
023	Hazy	Day
024	Mostly Cloudy	Day
025	Sleet	Day
026	Mostly Sunny	Day
027	Chance of Flurries	Night
028	Chance of Sleet	Night
029	Chance of Snow	Night
030	Chance of Storms	Night
031	Clear	Night
032	Flurries	Night
033	Hazy	Night
034	Mostly Cloudy	Day
035	Mostly Sunny	Day
036	Sleet	Night
037	Unknown	Night
038	Chance of Rain Showers	Day
039	Chance of Snow Showers	Day
040	Snow Showers	Day
041	Rain Showers	Day
042	Chance of Rain Showers	Night
043	Chance of Snow Showers	Night
044	Snow Showers	Night
045	Rain Showers	Night
046	Freezing Rain	Day
047	Freezing Rain	Night
048	Chance of Freezing Rain	Day
049	Chance of Freezing Rain	Night
050	Windy	Day
051	Foggy	Day
052	Scattered Showers	Day
053	Scattered Thunderstorms	Day
054	Light Snow	Day
055	Chance of Light Snow	Day
056	Frozen Mix	Day
057	Chance of Frozen Mix	Day
058	Drizzle	Day
059	Chance of Drizzle	Day
060	Freezing Drizzle	Day
061	Chance of Freezing Drizzle	Day
062	Heavy Snow	Day
063	Heavy Rain	Day

064	Hot and Humid	Day
065	Very Hot	Day
066	Increasing Clouds	Day
067	Clearing	Day
068	Mostly Cloudy	Day
069	Very Cold	Day
070	Mostly Clear	Night
071	Increasing Clouds	Night
072	Clearing	Night
073	Mostly Cloudy	Night
074	Very Cold	Night
075	Warm and Humid	Night
076	Now	Day
077	Exclamation	Day
078	30% Chance of Snow	Day
079	40% Chance of Snow	Day
080	50% Chance of Snow	Day
081	30% Chance of Rain	Night
082	40% Chance of Rain	Night
083	50% Chance of Rain	Night
084	30% Chance of Flurries	Day
085	40% Chance of Flurries	Day
086	50% Chance of Flurries	Day
087	30% Chance of Rain	Day
088	40% Chance of Rain	Day
089	50% Chance of Rain	Day
090	30% Chance of Sleet	Day
091	40% Chance of Sleet	Day
092	50% Chance of Sleet	Day
093	30% Chance of Storms	Day
094	40% Chance of Storms	Day
095	50% Chance of Storms	Day
096	30% Chance of Flurries	Night
097	40% Chance of Flurries	Night
098	50% Chance of Flurries	Night
099	30% Chance of Sleet	Night
100	40% Chance of Sleet	Night
101	50% Chance of Sleet	Night
102	30% Chance of Snow	Night
103	40% Chance of Snow	Night
104	50% Chance of Snow	Night
105	30% Chance of Storms	Night
106	40% Chance of Storms	Night
107	50% Chance of Storms	Night
108	30% Chance Rain Showers	Day
109	40% Chance Rain Showers	Day
110	50% Chance Rain Showers	Day
111	30% Chance Snow Showers	Day
112	40% Chance Snow Showers	Day

113	50% Chance Snow Showers	Day
114	30% Chance Rain Showers	Night
115	40% Chance Rain Showers	Night
116	50% Chance Rain Showers	Night
117	30% Chance Snow Showers	Night
118	40% Chance Snow Showers	Night
119	50% Chance Snow Showers	Night
120	30% Chance Freezing Rain	Day
121	40% Chance Freezing Rain	Day
122	50% Chance Freezing Rain	Day
123	30% Chance Freezing Rain	Night
124	40% Chance Freezing Rain	Night
125	50% Chance Freezing Rain	Night
126	30% Chance Light Snow	Day
127	40% Chance Light Snow	Day
128	50% Chance Light Snow	Day
129	30% Chance Frozen Mix	Day
130	40% Chance Frozen Mix	Day
131	50% Chance Frozen Mix	Day
132	30% Chance of Drizzle	Day
133	40% Chance of Drizzle	Day
134	50% Chance of Drizzle	Day
135	30% Chance Freezing Drizzle	Day
136	40% Chance Freezing Drizzle	Day
137	50% Chance Freezing Drizzle	Day
138	Chance of Snow	Day
139	Chance of Rain	Day
140	Chance of Flurries	Day
141	Chance of Rain	Day
142	Chance of Sleet	Day
143	Chance of Storms	Day
144	Chance of Flurries	Day
145	Chance of Sleet	Day
146	Chance of Snow	Day
147	Chance of Storms	Day
148	Chance of Rain Showers	Day
149	Chance of Snow Showers	Day
150	Chance of Rain Showers	Day
151	Chance of Snow Showers	Day
152	Chance of Freezing Rain	Day
153	Chance of Freezing Rain	Day
154	Chance of Light Snow	Day
155	Chance of Frozen Mix	Day
156	Chance of Drizzle	Day
157	Chance of Freezing Drizzle	Day
158	Windy	Night
159	Foggy	Night
160	Light Snow	Night
161	Frozen Mix	Night

162	Drizzle	Night
163	Heavy Rain	Night
164	Chance of Frozen Mix	Night
165	Chance of Drizzle	Night
166	Chance of Frozen Drizzle	Night
167	30% Chance of Drizzle	Night
168	30% Chance Frozen Drizzle	Night
169	30% Chance Frozen Mix	Night
170	40% Chance of Drizzle	Night
171	40% Chance Frozen Drizzle	Night
172	40% Chance Frozen Mix	Night
173	50% Chance of Drizzle	Night
174	50% Chance Frozen Drizzle	Night
175	50% Chance Frozen Mix	Night
176	Chance of Light Snow	Night
177	30% Chance Light Snow	Night
178	40% Chance Light Snow	Night
179	50% Chance Light Snow	Night
180	Scattered Thunderstorms	Day
181	Freezing Drizzle	Night
182	Scattered Showers	Night
183	Scattered Thunderstorms	Night
184	Warm and Humid	Night
185	60% Chance of Snow	Day
186	70% Chance of Snow	Day
187	80% Chance of Snow	Day
188	60% Chance of Rain	Night
189	70% Chance of Rain	Night
190	80% Chance of Rain	Night
191	60% Chance of Flurries	Day
192	70% Chance of Flurries	Day
193	80% Chance of Flurries	Day
194	60% Chance of Rain	Day
195	70% Chance of Rain	Day
196	80% Chance of Rain	Day
197	60% Chance of Sleet	Day
198	70% Chance of Sleet	Day
199	80% Chance of Sleet	Day
200	60% Chance of Storms	Day
201	70% Chance of Storms	Day
202	80% Chance of Storms	Day
203	60% Chance of Flurries	Night
204	70% Chance of Flurries	Night
205	80% Chance of Flurries	Night
206	60% Chance of Sleet	Night
207	70% Chance of Sleet	Night
208	80% Chance of Sleet	Night
209	60% Chance of Snow	Night
210	70% Chance of Snow	Night

211	80% Chance of Snow	Night
212	60% Chance of Storms	Night
213	70% Chance of Storms	Night
214	80% Chance of Storms	Night
215	60% Chance Rain Showers	Day
216	70% Chance Rain Showers	Day
217	80% Chance Rain Showers	Day
218	60% Chance Snow Showers	Day
219	70% Chance Snow Showers	Day
220	80% Chance Snow Showers	Day
221	60% Chance Rain Showers	Night
222	70% Chance Rain Showers	Night
223	80% Chance Rain Showers	Night
224	60% Chance Snow Showers	Night
225	70% Chance Snow Showers	Night
226	80% Chance Snow Showers	Night
227	60% Chance Freezing Rain	Day
228	70% Chance Freezing Rain	Day
229	80% Chance Freezing Rain	Day
230	60% Chance Freezing Rain	Night
231	70% Chance Freezing Rain	Night
232	80% Chance Freezing Rain	Night
233	60% Chance Light Snow	Day
234	70% Chance Light Snow	Day
235	80% Chance Light Snow	Day
236	60% Chance Frozen Mix	Day
236	70% Chance Frozen Mix	Day
238	80% Chance Frozen Mix	Day
239	60% Chance of Drizzle	Day
240	70% Chance of Drizzle	Day
241	80% Chance of Drizzle	Day
242	60% Chance Freezing Drizzle	Day
243	70% Chance Freezing Drizzle	Day
244	80% Chance Freezing Drizzle	Day
245	60% Chance Light Snow	Night
246	70% Chance Light Snow	Night
247	80% Chance Light Snow	Night
248	60% Chance Frozen Mix	Night
249	70% Chance Frozen Mix	Night
250	80% Chance Frozen Mix	Night
251	Chance of Light Rain	Night
252	30% Chance of Light Rain	Night
253	40% Chance of Light Rain	Night
254	50% Chance of Light Rain	Night
255	60% Chance of Light Rain	Night
256	70% Chance of Light Rain	Night
257	80% Chance of Light Rain	Night
258	Light Rain	Night
259	Chance of Light Rain	Day

260	30% Chance of Light Rain	Day
261	40% Chance of Light Rain	Day
262	50% Chance of Light Rain	Day
263	60% Chance of Light Rain	Day
264	70% Chance of Light Rain	Day
265	80% Chance of Light Rain	Day
266	Light Rain	Day
267	Heavy Snow	Night
268	Chance of Heavy Snow	Night
269	30 % Chance of Heavy Snow	Night
270	40% Chance of Heavy Snow	Night
271	50% Chance of Heavy Snow	Night
272	60% Chance of Heavy Snow	Night
273	70% Chance of Heavy Snow	Night
274	80% Chance of Heavy Snow	Night
275	Heavy Snow	Day
276	Chance of Heavy Snow	Day
277	30% Chance of Heavy Snow	Day
278	40% Chance of Heavy Snow	Day
279	50% Chance of Heavy Snow	Day
280	60% Chance of Heavy Snow	Day
281	70% Chance of Heavy Snow	Day
282	80% Chance of Heavy Snow	Day

US Alerts (National Weather Service)

Description:
The Alerts request provides up-to-the-minute NWS US weather alerts. Only currently active alerts are returned based on the LatLong entered.

Parameters:
Access Token: must use the current access token on this request

Request:
https://thepulseapi.earthnetworks.com/getPublishedAlerts/data/alerts/v1/alerts?locationtype=latitudelongitude&location=30.3085,-82.2741&verbose=true&cultureInfo=en-us&access_token=<access_token>

Response:
{
alertList:
[
{
AlertId: "NwsVtec:OPKL-TO.W-0001.2013~FLC003-102127-_102027",
AlertPrimaryId: "NwsVtec:OPKL-TO.W-0001.2013",
AlertProviderId: "NwsVtec",

AlertSecondaryId: "FLC003-102127-_102027",
AlertType: "TO.W",
AlertTypeName: "Tornado Warning",
ExpiredDateTimeLocalString: "2013-10-10T17:27:00",
ExpiredDateTimeUtcString: "2013-10-10T21:27:00",
IssuedDateTimeLocalString: "2013-10-10T16:27:00",
IssuedDateTimeUtcString: "2013-10-10T20:27:00",
Message: " 837 PM EST MON Oct 10 2013 ...YUAN A TORNADOOOO WARNING REMAINS IN EFFECT UNTIL 515 PM CDT FOR SOUTH CENTRAL PERRY AND NORTHEASTERN STONE COUNTIES... ",
Polygon: null,
RawText: "123 WFUS50 KGYF 102027 TORGYF FLC003-102127- /O.NEW.OPKL.TO.W.0001.131010T2027Z-131010T2127Z/ 837 PM EST MON Oct 10 2013 ...YUAN A TORNADOOOO WARNING REMAINS IN EFFECT UNTIL 515 PM CDT FOR SOUTH CENTRAL PERRY AND NORTHEASTERN STONE COUNTIES... $$",
PVtec: "/O.NEW.OPKL.TO.W.0001.131010T2027Z-131010T2127Z/"
}
],
location: "30.3085,-82.2741",
locationType: "latitudelongitude"
}

Hourly 6-Day Forecast

Description:

The hourly forecast call provides hourly forecast data by lat/long. The data itself is updated once an hour at around 20 minutes after the hour. The forecast includes a description of the conditions for that hour. The description will be translated into additional languages according to the culture passed in.

Limitations:

The latitude and longitude location type will only provide data if there is a city within 40 miles of the latitude and longitude requested.

Parameters:

Access Token: must use the current access token on this request
location: location to use for querying data from the system. The location is tied to the location type id which is used by the API to determine what the location string actually represents. The current system will support latitude/longitude queries
locationtype: the type of the location used in the query. The following is the mapping:
latitudelongitude = latitude and longitude

Optional Parameters:

units: the units determine the return type for the system. Currently the following values are supported:
english = all units are returned in English units
metric = all units are returned Metric units
Default is metric

offset: determines the starting period to return. A value of 0 will return the current UTC hour. This means if the forecast hasn't updated yet for the current hour then it may mean that only 143 periods of forecast data are returned.
Default is 0
length: determines the number of forecast periods to return. This value can be between 1 and 144. If there is less data then the value, all the data will be returned.
Default is 144
metadata: determines if metadata should be returned in the response. Metadata can be used to describe the data returned by the feed.
Default = false
verbose: determines if the feed should return parameters names as full text or abbreviations.
Default = false

Request:
https://thepulseapi.earthnetworks.com/getHourly6DayForecast/data/forecasts/v1/hourly?location=39,80&locationtype=latitudelongitude&units=english&offset=0&metadata=true&verbose=true&access_token=<access_token>

Response:


```
 {
"hfp": [
{
"ccp": 95,
"d": "80% Chance of Rain",
"dp": 55.8,
"fl": 58.5,
"fdls": "2013-06-20T05:00:00",
"fdus": "2013-06-19T21:00:00Z",
"ic": 190,
"pc": 1,
"pp": 75,
"pr": 0.05,
"rh": 91,
"t": 58.5,
"tp": 30,
"wdd": 295,
"ws": 8.9
}
…
],
"forecastCreatedUtcStr": "2013-06-19T20:00:00.0000000Z",
"location": "CH13A0004",
"locationType": "city"
}
```

Radar and Maps

Description:
Radar and Maps provides URLs for WeatherBug Satellite, Radar, and Temperature maps as well as other various images of the United States, Puerto Rico and the Virgin Islands. Maps can be provided in standard (373x272) size or enlarged (640x480) size. WeatherBug provides the capability for end users to navigate between maps (traveling N, S, E, W), and to zoom in and out between local, regional, and national maps. Navigation XML can be optionally added to provide a way to create an interface for your users to pan and zoom throughout the maps. An animation option allows for a number of time-sequential images to be returned. Cycling through these images provides for a small animation loop. Note that images should be used in the same order as they are returned in the XML. Radar and Maps provide specific information for the given zip code or city code RequestType "RadarAndMaps" or 5

Input Parameters:
Access Token: must use the current access token on this request
RequestType – required
ZipCode – conditionally required
PostalCode – conditionally required
CityCode - conditionally required

MapId – optional
MapType – optional
Zoom – optional
Animate – optional

Navigation – optional
Enlarge - optional

Note: In order for this request to be valid the user shall include either the ZipCode, CityCode or PostalCode attribute.

Parameter Name	Value	Description
Animate	0 or blank = Show only the current map URL 1 = Show a list of URLs for animation loops	Provides the animation image list, rather than a single image XML in the response.
CityCode	Integer of length 5.	The city code that identifies this location. This is the value that will be used in other calls to identify a specific list of stations for the provided city code

Parameter Name	Value	Description
Enlarge	0 or blank = Show standard size map URL(s) 1 = Show large image URL(s)	when 0 is entered standard is returned 363x272 images in the XML response. When 1 is entered enlarged is returned 640x480 images
MapId	Integer	The ID of the map to retrieve.
MapType	1 = Doppler Radar 2 = Infrared Satellite 3 = Satellite/Radar 4 = Visible Satellite 5 = Current Temperatures 6 = High Temps Today 7 = High Temps Tomorrow 8 = Wind Chill/Heat Index 9 = Wind Speed/Direction 10 = Topography	The type of map to retrieve. Not all map types are available in all zip codes, such as Puerto Rico.
Navigation	An XML Node containing an ID attribute as well as two sub-nodes.	Contains information about the current category ID and has sub-nodes to indicate the next and previous categories.
Postal Code	5-digit number	A series of letters and/or digits appended to a postal address for the purpose of sorting mail.
RequestType	see individual request sections	Indicates the type of request.
ZipCode	A valid 5-digit zip code or 9-digit zip code	The zip code for the area that you wish to have data returned for. We now support 9-digit zipcodes For example, 20171, 20171-1234 both of these formats will be accepted if passed in
Zoom (Only for US)	1 = Local (closest view) 2 = Metro 3 = Regional 4 = National 8 = Hawaii 10 = Alaska 12 = Puerto Rico/Virgin Islands	The zoom level for the map to retrieve. If you desire a map of Hawaii, Alaska, Puerto Rico or the Virgin Islands, be sure to specify the corresponding Zoom level. Not all map types are

Parameter Name	Value	Description
		available in all zoom levels.

Output Parameters:

Parameter Name	Value	Description
Animate	0 or blank = Show only the current map URL 1 = Show a list of URLs for animation loops	Provides the animation image list, rather than a single image XML in the response.
East, Northeast, North, Northwest, West, Southwest, South, Southeast	Integer	Contains a status attribute that indicates "on" or "off", if a map exists in the direction indicated. If there is one (status = "on"), the ID for that map will be in the value area of the node.
Height	String	Height of radar image or associated image for news story
Id	A short, typically five-character string	The unique identifier for a requested data element (e.g., station identifier)
Image-type	String	Level of detail for map image. For example, map is at the regional level.
Image-src	A URL string	The URL for a single map. This can also be a sub-node of an aws:image-list node. Attributes include: width and height.
Local	Integer	The MapId of the local map that represents the same zip code as the requested map.
Map(s)	An XML node, with sub nodes: aws:id and either a single aws:image-src, or an <aws:image-list>	The desired map. Attributes are: target-zip, size, type and image-type (zoom). These attributes should be fairly self-explanatory.

Parameter Name	Value	Description
MapId	Integer	The ID of the map to retrieve.
Map-navigation	An XML node with multiple sub-nodes including: aws:id and all of the remaining nodes in this table.	An XML node containing information on how to pan and zoom from the current map.
Map target-zip	Number	Zip Code for which map is associated with.
Metro	Integer	The MapId of the metro map that represents the same zip code as the requested map.
National	An integer	The MapId of the national map that represents the same zip code as the requested map.
Regional	Integer	Indicates the type of request.
Size	1 = Thumbnail 2 or blank = Standard 3 = Enlarged	Indicates the percent of sky cover at this point.
Type	String	Contains all of the information for the ultraviolet index for the given zip code.
Width	String	A listing of the 3 hottest, 3 coldest, 3 windiest and 3 rainiest weather stations in the United States so far today.
Zoom-out, Zoom-in	Integer	

Request:
https://thepulseapi.earthnetworks.com/getRadarsandMaps?RequestType=5&access_token=<access_token>&ZipCode=<20878>&PostalCode=<postalcode>&CityCode=<citycode>[&MapId=<233>][&MapType=<MapType>][&Zoom=<Zoom>][&Animate=<Animate>]
[&Navigation=<Navigation>][&Enlarge=<Enlarge>]

Example:
https://thepulseapi.earthnetworks.com/getRadarsandMaps?RequestType=5&access_token=edDlKDUZIJw6UlvU1Xi1OJTUuwN8&ZipCode=20878&MapID=233&MapType=MapType&Zoom=Zoom&Animate=0&Navigation=1&Enlarge=0

Response (Example for US):

The XML returned for Non-animated Radar and Maps requests will look similar to this (this one includes the optional navigational elements):

<?xml version="1.0" encoding="utf-16"?>
<aws:weather xmlns:aws="http://www.aws.com/aws">
<aws:map target-zip="20878" size="standard" type="visible" image-type="regional">
<aws:id>233</aws:id>
<aws:img-src height="272" width="363">
http://radarimg.weatherbug.com/images/AWSRadars/regional_visible/NE/radar0.60.jpg?rnd=2-020120050020
</aws:img-src>
</aws:map>
<aws:map-navigation target-zip="20878" image-type="regional">
<aws:id>233</aws:id>
<aws:local>180</aws:local>
<aws:metro>93</aws:metro>
<aws:regional>233</aws:regional>
<aws:national>239</aws:national>
<aws:east status="off">-1</aws:east>
<aws:north status="off">-1</aws:north>
<aws:northeast status="off">-1</aws:northeast>
<aws:northwest status="off">-1</aws:northwest>
<aws:south status="on">234</aws:south>
<aws:southeast status="off">-1</aws:southeast>
<aws:southwest status="on">236</aws:southwest>
<aws:west status="on">235</aws:west>
<aws:animate status="on">233</aws:animate>
<aws:enlarge status="on">269</aws:enlarge>
<aws:zoom-out status="on">239</aws:zoom-out>
<aws:zoom-in status="on">56</aws:zoom-in>
</aws:map-navigation>
</aws:weather>

Air Quality Forecast (AQI)

Description:
The AQI feed provides Air Quality Index and discussion data for a lat/long

Parameters:
Access Token: must use the current access token on this request
Location type = Latitude / Longitude
Verbose: a tool that determines whether or not to return the long names or abbreviations of variables

Request:
https://thepulseapi.earthnetworks.com/getAirQuality/data/aqi/v1/daily?locationtype=latitudelongitude&location=32.43322994224201,-81.89664639673845&access_token=<access_token>&verbose=true&cultureInfo=en-us

Response:

{
"CurrentDay": [
{
"ReportType": "Forecast",
"dateString": "2013-08-14",
"timeOfDayLocalString": null,
"AirQualityIndexes": [
{
"ParticulateType": "Ozone",
"Index": 36,
"ShortDescription": "Good"
}
],
"Discussion": "A frontal boundary has moved through much of the state on this Wednesday afternoon. Skies are mostly cloudy and temperatures are cooler than this time yesterday in the wake of this front, but GREEN ground level ozone concentrations remain unchanged for the most part. The aforementioned front is expected to become stationary along the northern Gulf Coast on Thursday. Atmospheric computer models are generating a weak area of low pressure over southern Alabama on the tail end of this front. Flow around this low pressure system will likely lift warm and moist air in the mid-levels north of the front across the Southeast US. This should lead to another cool and cloudy day by August standards on Thursday. As a result, CODE GREEN concentrations will continue statewide.",

"DiscussionIsDuplicate": false
},
{
"ReportType": "Observed",
"dateString": "2013-08-14",
"timeOfDayLocalString": "15:00",
"AirQualityIndexes": [
{
"ParticulateType": "Small Particulate Matter",
"Index": 55,
"ShortDescription": "Moderate"
},
{
"ParticulateType": "Ozone",
"Index": 35,
"ShortDescription": "Good"
}
],
"Discussion": null,
"DiscussionIsDuplicate": false
}
],
"Forecast": {}

Ultraviolet Index (UV)

Description:

The UV feed provides UV Index data for a lat/long

Parameters:
locationtype: "latitudelongitude"
location: a valid latitude/longitude
verbose: a tool that determines whether or not to return the long names or abbreviations of variables.

Request:
https://thepulseapi.earthnetworks.com/getUltraviolet/data/uv/v1?locationtype=latitudelongitude&location=43,-116&access_token=<access_token>&verbose=true

Response:
{
UvPeriods: [
{

DateUtcString: "2013-07-26T00:00:00Z",
UvIndex: 9
}
]
}

Station List

Description:
The stations call provides access to the entire station list. Adds optional display flag to allow manual setting to determine whether or not to use the station data

Parameters:
Current access token needs to be entered

Request:
https://thepulseapi.earthnetworks.com/data/locations/v2/stationlist?access_token=<access_token>

Response:

{"Stations":[{"StationId":"14439","ProviderId":10,"ProviderName":"NMS - SYNOP","StationName":"SVEGA","Latitude":62.03333333,"Longitude":14.4,"ElevationAboveSeaLevelMeters":null,"DisplayFlag":null},{"StationId":"CWIL","ProviderId":4,"ProviderName":"NMS - METAR","StationName":"HAT ISLAND","Latitude":68.31666667,"Longitude":-100.0666667,"ElevationAboveSeaLevelMeters":null,"DisplayFlag":null},{"StationId":"KF24","ProviderId":4,"ProviderName":"NMS - METAR","StationName":"MINDEN","Latitude":32.65,"Longitude":-93.3,"ElevationAboveSeaLevelMeters":null,"DisplayFlag":null},{"StationId":"KBKF","ProviderId":4,"ProviderName":"NMS - METAR","StationName":"BUCKLEY ANGB/DEN","Latitude":39.71666667,"Longitude":-104.75,"ElevationAboveSeaLevelMeters":null,"DisplayFlag":null},{"StationId":"ZHCC","ProviderId":4,"ProviderName":"NMS - METAR","StationName":"ZHENGZHOU","Latitude":34.71666667,"Longitude":113.65,"ElevationAboveSeaLevelMeters":null,"DisplayFlag":null},{"StationId":"PRTRN","ProviderId":3,"ProviderName":"Earth Networks Inc","StationName":"Sugar Mill ES","Latitude":29.1461111111111,"Longitude":-81.0008333333333,"ElevationAboveSeaLevelMeters":null,"DisplayFlag":null},

Plus many more stations…

Sunrise and Sunset Times

Description:

Sunrise and Sunset provides accurate sunrise and sunset times based on latitude and longitude. Default behavior when optional parameters NumDays, ShowSunrise and ShowSunset are omitted is to display both sunrise and sunset data for seven days beginning with the current day.

Parameters:
location: location to use for querying data from the system. The location is tied to the location type id which is used by the API to determine what the location string actually represents. The current system will support latitude/longitude queries
locationtype: the type of the location used in the query. The following is the mapping:
latitudelongitude = latitude and longitude; location=latitude,longitude

Optional Parameters:
days: number of days you want data for. The default is 1 meaning only the current day. The number of days includes the current day and any subsequent days in local time (max:10).
verbose: determines if the feed should return parameters names as full text or abbreviations.
Default = false
cultureinfo: determines in which language to return results
en-us: English
fr-fr: French
es-es: Spanish

Limitations:
Days must be < = 10

Request:
https://thepulseapi.earthnetworks.com/getAlmanacData/data/almanac/v1?locationtype=latitudelongitude&location=39,-77&access_token=<access_token>&verbose=true&days=2

Response:


```
 {
"solar": [
{
"sunriseDateTimeLocalS": "2013-06-20T05:42:14",
"sunsetDateTimeLocalStr": "2013-06-20T20:36:47"
},
{
```

"sunriseDateTimeLocalS": "2013-06-21T05:42:25",
"sunsetDateTimeLocalStr": "2013-06-21T20:37:00"
}
],
"lunar": [
{
"phaseIdentifier": -86, "phaseName": "Waxing Gibbous",
"phaseIconCode": 12
},
{
"phaseIdentifier": -92,
"phaseName": "Waxing Gibbous",
"phaseIconCode": 13
}
]
}

Get Link Request (deep link to WeatherBug.com)

Description:
The Get Link request provides the user with properly formatted URL(s) for linking to the weather.weatherbug.com website for display of full data.

Recommended Cache Duration - 24 hours
RequestType "GetLink" or 23

Parameters:

RequestType – required
PartnerId - required
ZipCode – conditionally required
LinkName –required
Zcode = Z6286 (auto-populated)
PostalCode – conditionally required

Output Parameters:
Links, link name, zip code, URL

Keyword	WeatherBug Website Section to Return SEO URL for	Notes
Home	Home	Return all links within "home"
home_local	Local Weather	
home_detailed	Detailed Conditions	
Forecast	Forecast	Return all links within "forecast"
forecast_sevenday	7-Day Forecast	
forecast_detail	Detailed Forecast	
forecast_weekend	Weekend Forecast	
forecast_hourly	Hourly Forecast	US ONLY
forecast_maps	Forecast Maps	US, CANADA, and UK Only
Maps	Radar & Maps	Return all links within "Radar & Maps"
maps_doppler	Doppler Radar	US ONLY
maps_lightning	Lightning	US ONLY
maps_infrared	Infrared Satellite	US or International
maps_visible	Visible Satellite	US ONLY
maps_satellite	Satellite/Radar	US ONLY
maps_temperature	Temperature Maps	US ONLY
maps_windchill	Wind Chill Maps	US ONLY
maps_windspeed	Wind Speed Maps	US ONLY
Severeweather	Severe Weather	Return all links within "severe weather"
severeweather_localalerts	Local Weather Alerts	US ONLY
severweather_nationalalerts	National Weather Alerts	US ONLY
Hurricanes	Hurricanes	Return Hurricane Command Center link
hurricanes_commandcenter	Command Center	
hurricanes_facts	Facts	
hurricanes_safety	Safety	
hurricanes_names	Names	
hurricanes_images	Images	
hurricanes_tracker	Tracker	
Cameras	Weather Cameras	US return all links within "Weather Cameras"International return link to Featured Cameras

Keyword	WeatherBug Website Section to Return SEO URL for	Notes
cameras_map	Camera Map	US ONLY
cameras_local	Local Cameras	US ONLY
cameras_featured	Featured Cameras	US ONLY
cameras_beach	Beach Cameras	US ONLY
cameras_city	City Cameras	US ONLY
cameras_mountain	Mountain Cameras	US ONLY
cameras_parks	National Parks	US ONLY
cameras_seasonal	Seasonal Cameras	US ONLY
cameras_stadium	Stadium Cameras	US ONLY
Traffic	Traffic Cameras	Return all links available for location within "Traffic Cameras"
traffic_local	Local Cameras	If no local traffic camera for location return link for "Other Cities"
traffic_cities	Other Cities	
Community	Community	Return all links within "Community"
commuity_main	Main	
community_photos	Photo Gallery	
community_youcast	youCaster Gallery	
community_video	Video Gallery	
community_blog	Blog	
community_neighbors	Neighbors	
community_mycommunity	My Community	
Video	Video	Return all links within "Video"
video_features	Weather Features	
video_local	Live Local Weather	
News	News & Features	If a specificy StoryID is passed in return link to specific story. If no StoryID passed; return all links within "News"
news_topstories	Top Stories	Ignore StoryID for this keyword

Keyword	WeatherBug Website Section to Return SEO URL for	Notes
news_archives	News Archives	Ignore StoryID for this keyword
Travel	Travel	Return all links within "Travel"
travel_forecast	Travel Forecast	
travel_planner	Trip Planner	
Health	Health & Fitness - Link directly to content/details	US return all links within "Health & Fitness"
health_pollen	Pollen Count – US ONLY	US ONLY
health_airquality	Air Quality – US ONLY	US ONLY
health_uvindex	UV Index – US ONLY	US ONLY

Request:
https://thepulseapi.earthnetworks.com /getLinkRequest?RequestType=23&access_token=<access_token>&ZipCode=<zipcode>&PostalCode=<postalcode>&LinkName=<Name1,Name2>&Zcode=Z6286

Response:

```
<?xml version="1.0" encoding="utf-8" ?>
<aws:weather xmlns:aws="http://www.aws.com/aws">
<aws:Links>
<aws:Link linkname="forecast_sevenday" zipcode="20876"
url="http://weather.weatherbug.com/MD/Germantown-weather/local-forecast/7-day-forecast.html?zcode=Z1234" />
<aws:Link linkname="forecast_detail" zipcode="20876"
url="http://weather.weatherbug.com/MD/Germantown-weather/local-forecast/detailed-forecast.html?zcode= Z1234" />
<aws:Link linkname="forecast_weekend" zipcode="20876"
url="http://weather.weatherbug.com/MD/Germantown-weather/local-forecast/weekend-forecast.html?zcode= Z1234" /> <aws:Link linkname="forecast_hourly" zipcode="20876"
url="http://weather.weatherbug.com/MD/Germantown-weather/local-forecast/hourly-forecast.html?zcode= Z1234" />
<aws:Link linkname="forecast_maps" zipcode="20876"
url="http://weather.weatherbug.com/MD/Germantown-weather/local-forecast/forecast-maps.html?zcode= Z1234" />
</aws:Links>
</aws:weather>
```

Sky Conditions Icons

Description:
This call returns a complete set of icons listed in order of icon code (for either lunar or forecast, by request)

Parameters:
iconSet: choice of whether to view lunar icons or forecast icons
lunar: returns lunar icons
forecast: returns forecast icons
pixel size: forecast returns 52x40, lunar returns 160x160

Request #1:
https://thepulseapi.earthnetworks.com/getSkyConditionIcons/resources/v1/icons?iconSet=forecast&access_token=<access_token>

Response #1:


```
{
Width: 52,
Height: 40,
Icons: [
{
Url:
"https://s3.amazonaws.com/qa.data.earthnetworks.com/ods/icons/v1/forecast
/50x42/cond000.png?AWSAccessKeyId=AKIAIGAWJIEJU4VSJEPA&Expires=1371687087
&Signature=MzL5LxJJuqTIXxiKEjGj9bwIBCw%3D",
IconCode: 000
},
{
Url:
"https://s3.amazonaws.com/qa.data.earthnetworks.com/ods/icons/v1/forecast
/50x42/cond001.png?AWSAccessKeyId=AKIAIGAWJIEJU4VSJEPA&Expires=1371687087
&Signature=c5jxI7dkebN5xw9E%2FRpWhVl%2F21M%3D",
IconCode: 001
},
{
Url:
"https://s3.amazonaws.com/qa.data.earthnetworks.com/ods/icons/v1/forecast
/50x42/cond002.png?AWSAccessKeyId=AKIAIGAWJIEJU4VSJEPA&Expires=1371687087
&Signature=y2QgpBQIBO141wDMu1IF9et3GM4%3D",
IconCode: 002 },
…
],
ZipUrl:
"https://s3.amazonaws.com/qa.data.earthnetworks.com/ods/icons/v1/forecast
/50x42_zi
p/forecast_50x42.zip?AWSAccessKeyId=AKIAIGAWJIEJU4VSJEPA&Expires=13716870
87&Signat ure=vFCfshjgLXU8hTizLLtTeA1tWEU%3D",
```

```
LastUpdatedDateTimeUtc: "2013-05-22T10:11:30.0000000Z"
}
```


Request #2:
https://thepulseapi.earthnetworks.com/getSkyConditionIcons/resources/v1/icons?iconSet=lunar&access_token=<access_token>

Response #2:

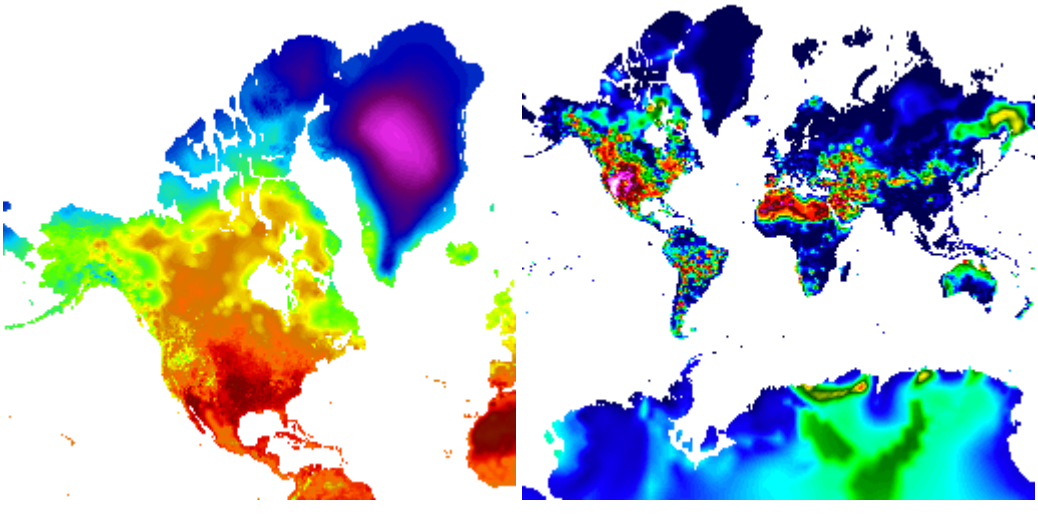

```
{
Width: 160,
Height: 160,
Icons: [
{
Url:
"https://s3.amazonaws.com/qa.data.earthnetworks.com/ods/icons/v1/lunar/160x160/mphase01.png?AWSAccessKeyId=AKIAIGAWJIEJU4VSJEPA&Expires=1371688660&Signature=AFTRcOJ 7kYHM9I5tOWOo7IzN7%2BI%3D",
IconCode: 01
},
{
Url:
"https://s3.amazonaws.com/qa.data.earthnetworks.com/ods/icons/v1/lunar/160x160/mphase02.png?AWSAccessKeyId=AKIAIGAWJIEJU4VSJEPA&Expires=1371688660&Signature=2kxRVQ% 2BatKxzK%2BRFuUcQAsQ0%2F%2B0%3D",
IconCode: 02
},
{
Url:
"https://s3.amazonaws.com/qa.data.earthnetworks.com/ods/icons/v1/lunar/160x160/mphase03.png?AWSAccessKeyId=AKIAIGAWJIEJU4VSJEPA&Expires=1371688660&Signature=NHex1VVS7Kj5EgBci%2F4D5iZC6Zk%3D",
IconCode: 03
},
…
],
ZipUrl:
"https://s3.amazonaws.com/qa.data.earthnetworks.com/ods/icons/v1/lunar/160x160_zip/lunar.zip?AWSAccessKeyId=AKIAIGAWJIEJU4VSJEPA&Expires=1371688659&Signature=75katCPKtIinj%2FyYWK33SLiy0l4%3D",
LastUpdatedDateTimeUtc: "2013-05-22T10:12:48.0000000Z"
```

Bing or Google Map Layers

Bing Geo API

The Pulse API provides a limited RESTful interface to access tiled weather images formatted for Bing maps. This is limited to US Radar, IR Satellite, Temperature, Humidity, Pressure, Forecast High and Low Layers.

Layers are designated by changing the URL layer type which can be "Temperature", "USRadar", "IRSatellite", "Humidity", "Pressure", "ForecastHigh", or "ForecastLow".
https://thepulseapi.earthnetworks.com /Data/GEO/Bing/**<layer designation>**



Request
https://thepulseapi.earthnetworks.com/Data/GEO/Bing/USRadar/GetTile_v2.aspx?as=0&c=0&fq=0&qk=0&mw=1&ds=0&stl=0&access_token=<access_token>

Parameters:

as	Uint	Animation slot index. A value of 0 represents the most recent data. Valid only for layers that support animation.
qk	String	Quadrant key (as defined by Bing.)
c	Uint	When set to 1, a cookie with the image timestamp will be returned as part of the HTTP response header. The case sensitive name of the cookie is 'LastDataUpdateTime' and the value has a time format of yyyy:MM:dd_HH:mm:ss. The time is always in UTC.
fq	Uint	Set to 0 to return an 8 bit PNG image (this is preferred.) When set to 1 the call will return the image as a 32 bit PNG. Used for clients that don't support client side transparency with 8bit PNG images.
mw	Uint	Set to 0 to return unmasked data. Set to 1 to hide the data over major bodies of water.
ds	Uint	Set to 0 to return an interpolated image. Set to 1 to turn off that interpolation and return a noninterpolated image.
stl	Uint	Set to 0 to disable temperature lines. Set to 1 to enable temperature lines.

Google Geo API

The GEO API provides a limited RESTful interface to access tiled weather images formatted for Google maps. The GEO API is limited to US Radar, IR Satellite, Temperature, Humidity, Pressure, Forecast High and Low Layers.

Layers are designated by changing the URL layer type which can be "Temperature", "USRadar", "IRSatellite", "Humidity", "Pressure", "ForecastHigh", or "ForecastLow".

https://thepulseapi.earthnetworks.com /Data/GEO/Google/**<layer designation>**

Limitations

None.

Example 1

A valid request and response by Google tiles.

Request

https://thepulseapi.earthnetworks.com/Data/GEO/Google/USRadar/GetTile_v2.aspx?as=0&c=0&fq=0&tx=0&ty=0&zm=0&mw=1&ds=0&stl=0&access_token=<access_token>

Parameters

as	Uint	Animation slot index. A value of 0 represents the most recent data. Valid only for layers that support animation.
tx	Uint	Tile X Coordinate (as defined by Google.)
ty	Uint	Tile Y Coordinate (as defined by Google.)
zm	Uint	Zoom Level (as defined by Google.)
C	Uint	When set to 1, a cookie with the image timestamp will be returned as part of the HTTP response header. The case sensitive name of the cookie is 'LastDataUpdateTime' and the value has a time format of yyyy:MM:dd_HH:mm:ss. The time is always in UTC.
fq	Uint	Set to 0 to return an 8 bit PNG image (this is preferred.) When set to 1 the call will return the image as a 32 bit PNG. Used for clients that don't support client side transparency with 8bit PNG images.
mw	Uint	Set to 0 to return unmasked data. Set to 1 to hide the data over major bodies of water.
ds	Uint	Set to 0 to return an interpolated image. Set to 1 to turn off that interpolation and return a noninterpolated image.
stl	Uint	Set to 0 to disable temperature lines. Set to 1 to enable temperature lines.

See Google Example below

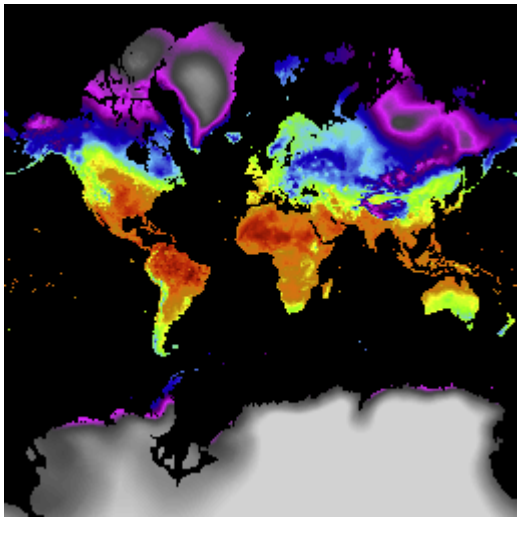
Google Example

The following example demonstrates how to find the appropriate Google Tile call to overlay on your Google Map.

See this example URL. Tx=0 and ty=0 zm=0

https://thepulseapi.earthnetworks.com/Data/GEO/Google/USRadar/GetTile_v2.aspx?as=0&c=0&fq=0&tx=0&ty=0&zm=0&mw=1&ds=0&stl=0&access_token=<access_token>

Below is the image you will see when making the above call.

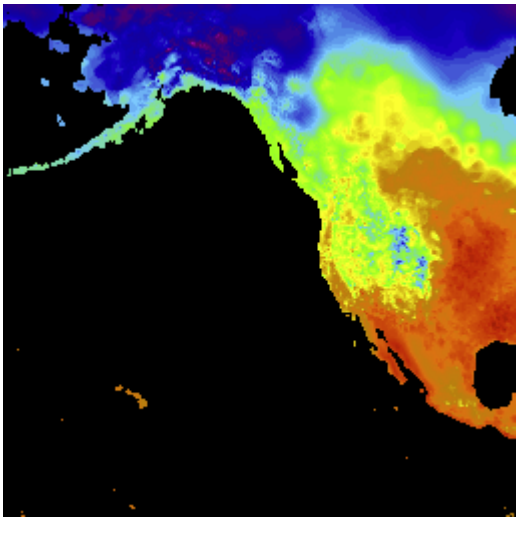


This still will need to be overlaid on the following Google Tile:

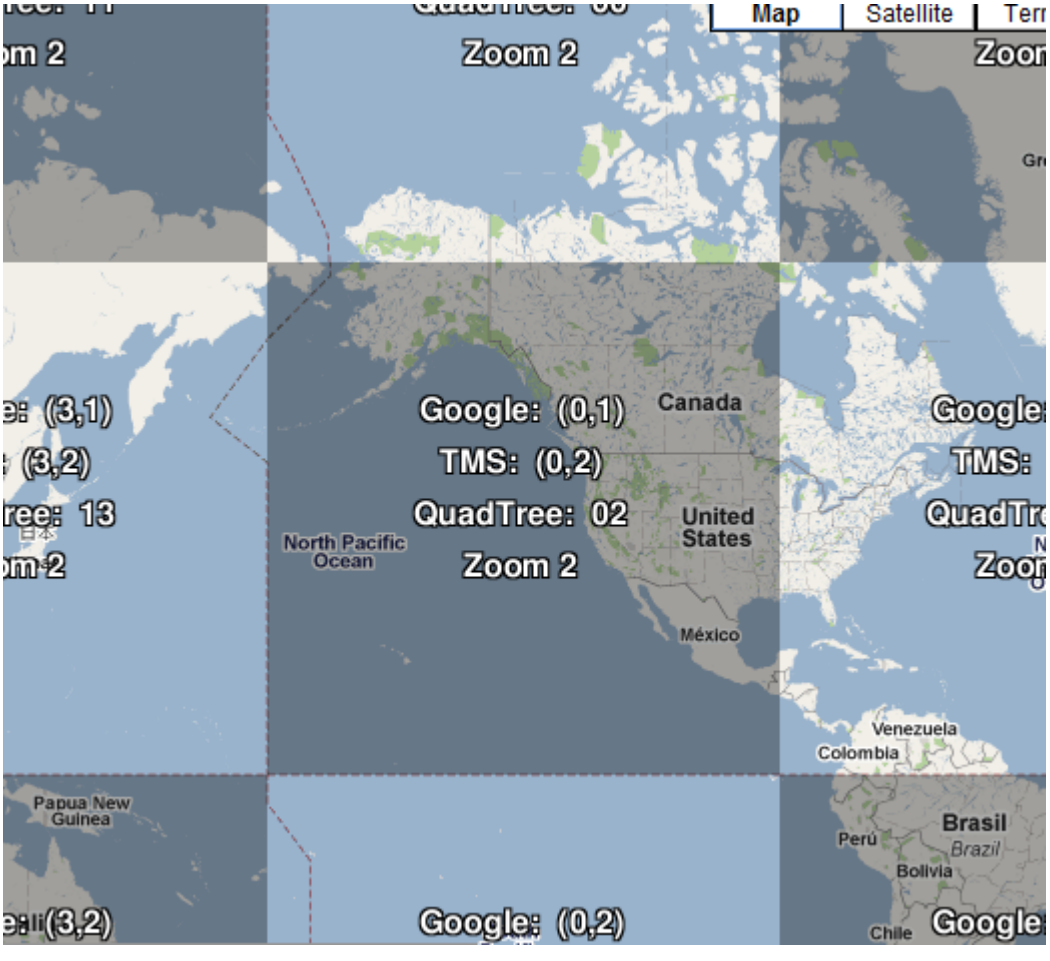
As another example:

For Google Tx=1, Ty=1 and Zoom level =2 you get:

https://thepulseapi.earthnetworks.com/Data/GEO/Google/Temperature/GetTile_v2.aspx?as=0&c=0&fq=0&tx=0&ty=1&zm=2&mw=1&ds=0&stl=0&api_key=xxxxxxxxxx



This is the corresponding Google Tile:



May more examples of how Google and Bing (Quadtree) tiles map to WeatherBug GEO calls can be found here:

http://www.maptiler.org/google-maps-coordinates-tile-bounds-projection/

END