EARTH NETWORKS®

SFERIC API
MAP WEATHER TILE

API Technical Documentation

INTRODUCTION

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

REST API

The Earth Networks Sferic API gives partners the flexibility to display Earth Networks data in their desired configuration.

A request is made through a URL to the specified Earth Networks server which returns a JSON response via HTTP. The data will vary according to the parameters passed.

The JSON response will include common attributes that are used throughout the various requests found in this document.

Below is a list with detailed explanations of the requested, required and optional parameters, as well as the format of the JSON response that is returned.

SUBSCRIPTION KEY

Description: All Sferic API calls require a subscription key appended to each call.

Example:
https://earthnetworks.azure-api.net/maps/overlays/v2/metadata?lid=pulserad&subscription-key={yourkey}

MAP TILE META DATA

All map tiles include metadata in order to retrieve available time slots and layer boundary availability i.e., where map visualization is available in the world.

Request parameters
• lid: LayerID (pulserad or lxflash-consumer)

    1. **pulserad (case sensitive)**

PulseRad Request Call Example:
https://earthnetworks.azure-api.net/maps/overlays/v2/metadata?lid=pulserad&subscription-key={yourkey}

EN.PM.UM80 20170207

Example response:

PulseRad Response Content:

```
{
  "Result": {
    "AnimationSchedules": [
      {
        "IntervalSeconds": 300,
        "Slots": [
          1449785400,
          1449785100,
          1449784800,
          1449784500,
          1449784200,
          1449783900,
          1449783600,
          1449783300,
          1449783000,
          1449782700,
          1449782400,
          1449782100
        ]
      }
    ],
    "LatestSlot": 1449785400,
    "PreferredSlot": 1449785400,
    "Layer": {
      "Id": "pulserad",
      "Bounds": {
        "East": 180.0,
        "North": 85.0511,
        "South": -85.0511,
        "West": -180.0
      },
      "Description": "PulseRad"
    }
  },
  "Code": 200,
  "ErrorMessage": null,
  "Id": "fc8ff965-a219-4826-a0a1-290ec3472205"
}
```

2. lxflash-consumer (case sensitive)

Lightning Request Call Example: https://earthnetworks.azure-api.net/maps/overlays/v2/metadata?lid=lxflash-consumer&subscription-key={yourkey}

Example response:

Lightning Response Content:

```
{
  "Result": {
    "AnimationSchedules": [
      {
        "IntervalSeconds": 60,
        "Slots": [
          1449785880,
          1449785820,
          1449785760,
          1449785700,
          1449785640,
          1449785580,
          1449785520,
          1449785460,
          1449785400,
          1449785340,
          1449785280,
          1449785220,
          1449785160
        ]
      },
      {
        "IntervalSeconds": 300,
        "Slots": [
          1449785700,
          1449785400,
          1449785100,
          1449784800,
          1449784500,
          1449784200,
          1449783900,
          1449783600,
          1449783300,
```

```
          1449783000,
          1449782700,
          1449782400
        ]
      }
    ],
    "LatestSlot": 1449785880,
    "PreferredSlot": 1449785880,
    "Layer": {
      "Id": "lxflash-consumer",
      "Bounds": {
        "East": 180.0,
        "North": 85.0511,
        "South": -85.0511,
        "West": -180.0
      },
      "Description": "Consumer Web Lightning"
    }
  },
  "Code": 200,
  "ErrorMessage": null,
  "Id": "a1f19720-fb8f-4ab7-89da-c4c7009e1af0"
}
```

Response parameters

- IntervalSeconds**:** intervals between each layer slots
- Slots: available layers in epoch time
- Bounds: the bounding box of available data

MAP TILE

Map tiles are delivered as imagery. Per our metadata call we receive time slots available which can then be applied to the map tile retrieval.

Request parameters

- X, Y, Z: Map position. Insert values for x, y, z.
- T: Time. Slots get from metadata call
- lid: LayerID (pulserad or lxflash-consumer)
- epsg: Map projection. Pulse API tiles supports Mercator and WGS84 projections. Mercator = 3857, WGS84 = 4326
- Subscription Key: Subscription Key

PulseRad Request URL: https://earthnetworks.azure-api.net/maps/overlays/tile?x={x}&y={y}&z={z}&t={t}&lid=pulserad&epsg=3857&subscription-key={yourkey}

Lightning Request URL: https://earthnetworks.azure-api.net/maps/overlays/tile?x={x}&y={y}&z={z}&t={t}&lid=lxflash-consumer&epsg=3857&subscription-key={yourkey}