

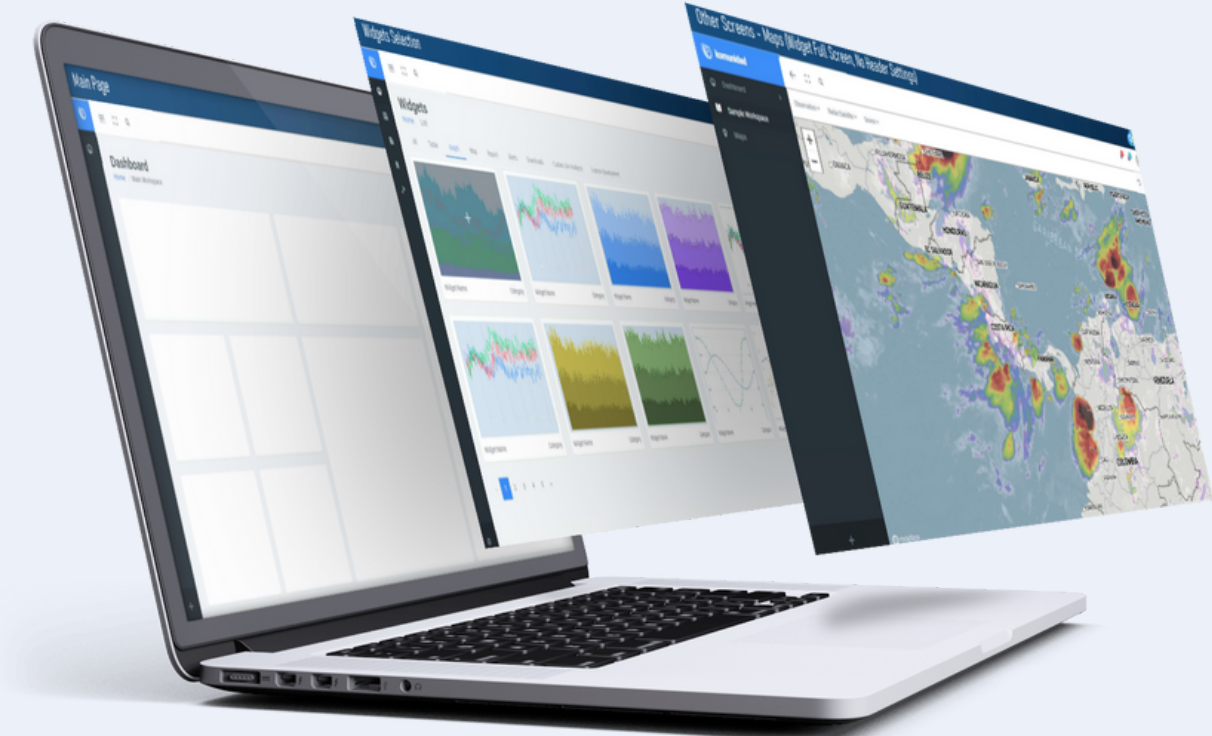


# XReal Data Documentation



# Komunidad End Point

- Lightning Data Alerts
- Dangerous Thunderstorm Alert



# Lightning Data

[https://komunidad-xreal.herokuapp.com/lightning?coordinates={lat},{lon}&radius={radius}&api\\_key=komunidad\\_xreal](https://komunidad-xreal.herokuapp.com/lightning?coordinates={lat},{lon}&radius={radius}&api_key=komunidad_xreal)

- Lightning data access
- Radius is in kilometers
- Input the desired coordinates & radius to return latest lightning strike data for a location.
- If there is no data, API will return "No lightning data available at the chosen location"

```
{
  "success": true,
  "error": {
    "code": "warn_invalid_param",
    "description": "Invalid from parameter has been adjusted."
  },
  "response": [
    {
      "id": "61ee60411d332a29153aebda",
      "loc": {
        "long": 101.89436,
        "lat": 2.89771
      },
      "ob": {
        "timestamp": 1643012148,
        "dateTimeISO": "2022-01-24T08:15:48+00:00",
        "age": 28,
        "pulse": {
          "type": "cg",
          "peakamp": -25359,
          "numSensors": 12,
          "icHeightM": 0,
          "icHeightFT": 0
        }
      }
    }
  ]
}
```

# Lightning Data

- **id** - The ID of the lightning strike.
- **ob** - Object containing information about the lightning strike.
- **ob.timestamp** - Unix timestamp of the lightning strike.
- **ob.dateTimeISO** - ISO 8601 date of the lightning strike.
- **ob.age** - Seconds elapsed since the lightning strike.
- **ob.pulse** - Object containing the type and peak amp of the lightning strike.
- **ob.pulse.type** - One of the two types of lightning strikes.
  - **IC**: IntraCloud
  - **CG**: Cloud to ground
- **ob.pulse.peakamp** - The peak electric current in amperes. Polarity is determined by a negative or positive value here.
- **ob.pulse.numensors** - The number of sensors that detected the lightning pulse
- **ob.pulse.icHeightFT** - The height in feet of the intracloud lightning pulse
- **ob.pulse.icHeightM** - The height in meters of the intracloud lightning pulse
- **recTimestamp** - Unix timestamp of the time the lightning strike information was received
- **recISO** - ISO 8601 date of the time the lightning strike information was received.
- **loc.long** - The longitude coordinate of the record.
- **loc.lat** - The latitude coordinate of the record.



# Dangerous Thunderstorm Alert Data (L2 & L3)

https://komunidad-xreal.herokuapp.com/dta?coordinates={lat},{lon}&radius={radius}&api\_key=komunidad\_xreal

- DTA data access (L2 & L3)
- Radius is in kilometers
- Input the desired coordinates & radius to return latest DTA data for a location.
- If there is no data, API will return "No lightning and DTA data available at the chosen location"

```
{
  "Earth Networks Dangerous Thunderstorm Alert": [
    {
      "category": "Met",
      "event": "Earth Networks Dangerous Thunderstorm Alert",
      "response_type": "Execute",
      "urgency": "Expected",
      "severity": "Severe",
      "certainty": "Likely",
      "effective": "2021-12-23T08:22:00+00:00",
      "expires": "2021-12-23T09:07:00+00:00",
      "sender_name": "Earth Networks Headquarters, Germantown, MD",
      "headline": "Earth Networks Level 3 Lightning Polygon until 2021-12-23T09:07:00.000000+00:00",
      "description": "An Earth Networks Dangerous Thunderstorm Alert is in effect until 12/23/2021 5:07 PM WITA. Event Start: 12/23/2021 4:22 PM WITA. Event End: 12/23/2021 5:07 PM WITA. Earth Networks Dangerous Thunderstorm Alert. Earth Networks Headquarters, Germantown, MD. Until 5:07 PM WITA. At 4:22 PM WITA...The Earth Networks Total Lightning Network is indicating a thunderstorm with a significant rate of lightning occurring in your area and moving in your direction. This storm has an increased potential to produce severe weather such as very frequent lightning, heavy rain, hail and/or high winds and should be considered dangerous. (For more information on this Earth Networks product visit www.earthnetworks.com) Storm is located near Latitude: -8.085, Longitude: 122.765. Repeating, this storm contains frequent lightning and has an increased potential to produce severe weather and should be considered dangerous. Take appropriate measures to ensure safety to life and property immediately. This alert is being issued in an advisory capacity by Earth Networks Headquarters due to the detection of frequent lightning by The Earth Networks Total Lightning Network. It is not associated in any way with the country's official meteorological services nor to any official alert linked to this storm. Active advisories or warnings issued by the official meteorological services should be followed in precedence to this alert. Stay tuned to www.earthnetworks.com, other Earth Networks applications or local media outlets for the latest severe weather information.",
      "instruction": "This storm contains frequent lightning and has an increased potential to produce severe weather and should be considered dangerous. Take appropriate measures to ensure safety to life and property immediately.",
      "contact": "https://support.earthnetworks.com/ContactSupport",
      "lightning_severity": "High",
    }
  ]
}
```

```
"Earth Networks Level 2 Lightning Polygon": [
  {
    "category": "Met",
    "event": "Earth Networks Level 2 Lightning Polygon",
    "response_type": "Prepare",
    "urgency": "Expected",
    "severity": "Moderate",
    "certainty": "Possible",
    "effective": "2021-12-23T08:29:00+00:00",
    "expires": "2021-12-23T09:14:00+00:00",
    "sender_name": "Earth Networks Headquarters, Germantown, MD",
    "headline": "Earth Networks Level 2 Lightning Polygon until 2021-12-23T09:14:00.000000+00:00",
    "description": "At 4:29 PM WITA...Earth Networks Headquarters in Germantown, MD has issued a Level 2 Lightning Polygon until 5:14 PM WITA. The Earth Networks Total Lightning Network is indicating that a storm containing moderate lightning could affect your location in the next 45 minutes.",
    "instruction": "A storm containing moderate lightning could affect your location in the next 45 minutes.",
    "contact": "https://support.earthnetworks.com/ContactSupport",
    "lightning_severity": "Medium",
    "cell_polygon": "POLYGON ((-8.10522383954979 122.64822067345, -8.12268949881709 122.666068927076, -8.13577305486168 122.686068927076, -8.17386889515397 122.786068927076, -8.08522383954979 122.857204463636, -8.06522383954979 122.851520544365, -8.04522383954979 122.843426152801, -7.98522383954979 122.818771994243, -7.97252077238273 122.806068927076, -7.94639684998209 122.726068927076, -7.96329721485254 122.686068927076, -7.96522383954979 122.684142302379, -8.00522383954979 122.651278364744, -8.01660041091666 122.646068927076, -8.02522383954979 122.642533239111, -8.04522383954979 122.63752536914, -8.08522383954979 122.633080269988, -8.10522383954979 122.64822067345)))",
    "direction": "127",
    "speed": "9 mph",
    "area_desc": "Latitude: -8.057, Longitude: 122.728",
    "polygon": "-8.05096953034522 122.941922516915, -7.83186578113734 122.724080159362, -8.11869070823768 122.528780848296, -8.24108296192251 122.812474136724, -8.05096953034522 122.941922516915",
    "event_id": "AU202112230654001"
  }
]
```

# Dangerous Thunderstorm Alert Data (L2 & L3)

- **category** - The code denoting the category of the subject event of the alert message. Met is the code for weather.
- **event** - The text denoting the type of the subject event of the alert message.
- **response\_type** - The code denoting the type of action recommended for the target audience.
- **urgency** - The code denoting the urgency of the subject event of the alert message.
- **severity** - The code denoting the severity of the subject event of the alert message.
- **certainty** - The code denoting the certainty of the subject event of the alert message.
- **effective** - The alert event start time.
- **expires** - The alert event expected end time.
- **sender\_name** - The human-readable name of the agency or authority issuing this alert.
- **headline** - A brief human-readable headline for the alert message.
- **description** - A complete bulletin that includes all the information in a readable that mimics the National Weather Service warnings bulletin.
- **instruction** - The text describing the recommended action to be taken by recipients of the alert message.
- **contact** - The text describing the contact for follow-up and confirmation of the alert message.
- **lightning\_severity** - DTA="High", Level 2 = "Medium", Level 1 = Low
- **cell\_polygon** - The geographic boundary of the cell that is causing the severe weather.
- **direction** - The direction of the cell in degrees unit.
- **speed** - n=0-4. Up to 5 wind gust current observations.
- **area\_desc** - A grouping element that provide all the spatial information regarding to the area where the alert was issued for.
- **polygon** - The DTA polygon verteces in lat/long units.
- **event\_id** - A number or string uniquely identifying this message, assigned by the sender.