

Lightning Threat Zone API

Easy-to-integrate global nowcasts for urban and industrial safety



Key benefits

Help industries and residents operate safely

Provide accurate, local lightning information that helps the public in buildings and outdoors reach safety faster, while enabling industrial operations to keep workers safe, minimize expensive downtime, and better manage risk from explosions and fires.

Enable greater situational awareness

Allow users to follow developing storm situations in real time and from farther away. Create alerts for users on approaching weather that could pose a lightning threat or have the potential for severe weather.

Better visualize and contextualize nearby storms

See storm trajectory displays and storm cell velocity vectors that include speed and direction, so users can identify when storm cells are beginning to develop or decay.

Gain faster lead times

Start planning sooner with nowcasts of potential thunderstorm activity by forecasting up to 60 minutes out in 10-minute increments, improving safety and increasing efficiency for your users.

Rely on the world's most accurate lightning data

Get accurate data collected from the world's largest lightning detection network, analyzed with a sophisticated algorithm for simple, effective forecast visualizations in real time.

When a storm is coming, people need to know when lightning is nearby and if it's time to take cover. From industrial operations to office buildings and parks, safety management professionals depend on local and accurate lightning information to make the right decisions that minimize disruptions and keep people safe.

Bring thunderstorm forecasting clarity to your weather platforms. Vaisala Lightning Threat Zone API boosts the thunderstorm nowcasting and alert information that software developers can easily leverage within their situational awareness platforms. This provides local, actionable insights for decision-makers when people's safety depends on their action — from buildings and outdoor recreation activities to worker safety and risk management for fires and explosions.

Lightning Threat Zone API starts with data from the world's largest lightning detection networks and analyzes them with a sophisticated algorithm to deliver simple, effective forecast visualizations in real time. This enables effective planning for safe industrial operations through localized forecasting, earlier warnings, and greater understanding of how a storm is behaving. It can work with severe weather forecasting systems and weather tools—without the need for other weather inputs—to help users determine whether a thunderstorm may risk safety and when people can resume activities.

Applications

- Visualize and understand the level of threat a storm poses, whether it is approaching, moving away, or is currently overhead triggering lightning alarms.
- Integrate real-time lightning nowcast data to localize thunderstorm forecasts with global coverage that does not depend on other weather inputs.
- Build localized warnings into existing weather applications to provide accurate, relevant information for industrial operations, buildings or outdoor activities.
- Determine more accurate risk thresholds to minimize costly downtime and protect workers from injury or death.

Key features

Simple API query that can easily integrate into your weather systems and platforms, without the need for other weather inputs.

Incremental forecasting capabilities on thunderstorm cells up to 60 minutes out in 10-minute increments.

The highest quality lightning data powered by the most comprehensive, reliable lightning detection networks in the world — available 99.99+% of the time to cover all of your users, everywhere.

Additional lightning information layer that includes forecast polygons and velocity vector data for each identified storm so users can better predict their lightning risk.

Hyperlocal, actionable data that can be utilized to make well-informed immediate operational decisions and for establishing individual site and broad organizational safety policies.

Why Vaisala?

With the right access to the right information, people become more aware, active and committed. They gain a deeper connection to their environment and new ways of thinking about business and community.

Vaisala is driven by passion, relentless curiosity and the desire to create a better world, as reflected by our guiding principles for urban weather and environment:

1. **Exceptional products grounded in science and innovation** — Vaisala's scientific leadership and innovation in inventing unrivaled weather and environment products have reflected the spirit of our company for 85 years.
2. **Insight every day** — The combined power of our weather and environmental solutions provide dependable intelligence people can confidently act on; enabling businesses and communities to make better decisions.
3. **Champions for smarter, safer, more sustainable urban communities** — Vaisala empowers businesses and community leaders; helping them to fulfill their operational missions for their cities.
4. **Inspired solutions rooted in the Finnish way** — Finland has boldly demonstrated that a culture of resilience and a connection to nature can create new ways of smarter, sustainable living.

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