

Earth Networks Total Lightning Network®



Who needs it and why

- **Airports, utilities, and industrial sites** protect people and equipment
- **Emergency and wildfire teams** act earlier on dangerous storms
- **Parks and outdoor venues** know to get people inside
- **Government and weather agencies** improve forecasts and models
- **Weather platforms and data providers** power models and apps



BETTER MEASUREMENT STARTS AT THE SENSOR

A 20x broader frequency range helps our sensor capture more lightning in harsh, real-world conditions.

Act with confidence when storms are close

Lightning data is only useful if it reflects what's really happening. Missed detections and false alarms can lead to unnecessary shutdowns, delayed actions, or real risk to people and assets. The Earth Networks Total Lightning Network (ENTLN) delivers a clearer, more accurate view of lightning activity by detecting more complete total lightning while maintaining a near-zero false alarm rate. The result is high-quality lightning data that teams can depend on to assess conditions, manage risk, and respond with confidence.

<0.25%

false alarm rate

95%

classification accuracy

<100m

location accuracy worldwide

KEY BENEFITS



Reduce unnecessary shutdowns with lightning data that delivers a near-zero false alarm rate.



See storms intensifying earlier by detecting lightning activity inside the cloud as well as at the ground.



Respond in real time with verified lightning data delivered globally in under 15 seconds.



Confirm proximity and impacts with <100 m lightning location accuracy.

What sets our lightning data apart

The Earth Networks Total Lightning Network pairs broad detection with strict quality controls to keep lightning data accurate, timely, and reliable in real-world operations.

1. Make confident decisions without unnecessary shutdowns

- Validates every signal with strict quality checks before it becomes lightning data
- Filters out noise and interference using AI trained on real lightning waveforms
- Minimizes false alarms, so actions are driven by real lightning risk

<0.25%

false alarm rate

Detect → Validate → Deliver

2. Get a clearer picture of lightning as storms develop

- Accurately classifies in-cloud and cloud-to-ground lightning to detect storms earlier and track intensification
- Provides precise lightning location information, clarifying where lightning risk exists for people, assets, and operations

95%

classification accuracy

<100m

location accuracy worldwide

3. Dependable data where you operate

- Provides lightning quickly and reliably, with region-based processing that verifies and delivers data in under 15 seconds worldwide
- Supports critical operations, with 99.9% uptime, continuous monitoring, and automated quality controls

<15

second delivery worldwide

99.9%

uptime

Products Powered by ENTLN

• Lightning Data

Live and historical total lightning data delivered via APIs, feeds, and archives for forecasting, modeling, and analytics.

• Outdoor Alerting Systems

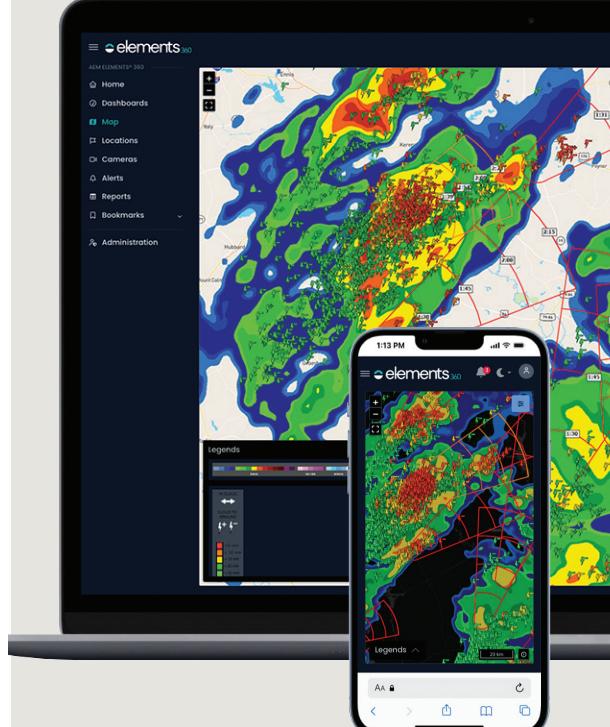
Automated audible and visual alerts that trigger when lightning is detected nearby, helping keep people safe outdoors.

• Software & Visualization

Tools to visualize, map, and alert on lightning activity in real time using AEM Elements® 360 and Sferic Maps®.

• Private Lightning Networks

Dedicated lightning detection networks operated in a specific region or country, providing full control, local performance, and sovereign data access.



elements 360

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elements 360

Legend

NEED LIGHTNING DATA YOU CAN TRUST?

Connect with our lightning experts about ENTLN data and solutions at info@aem.eco.

