Google Cloud Brings WeatherNext Al-Powered Weather Predictions to Enterprises

SUNNYVALE, Calif., March 5, 2025 /PRNewswire/ -- Google Cloud today announced that AI weather forecasting models created by Google DeepMind and Google Research, WeatherNext, are now available to Cloud enterprise customers via experimental datasets in Google BigQuery and Earth Engine. WeatherNext models offer state-of-the-art weather predictions that could help energy companies, retailers, financial services firms, manufacturers and others better prepare for extreme weather events.

Cloud Google Google Google Research enterprises.

brings Increasingly frequent and extreme weather events pose monumental challenges to global energy WeatherNext models from companies. Hurricanes, heat waves, and cold snaps threaten their infrastructures and the DeepMind and communities they serve. In 2024 alone, 27 extreme weather events each caused more than \$1 to billion in losses in the United States. The annual number of catastrophic weather events has increased nearly sevenfold since the 1980s.

Historically, uncertain forecasts—especially beyond a few days—have made preparing for extreme weather agamble. With WeatherNext, customers will have access to weather predictions that are more accurate than traditional physics-based weather models. This could help extend their timelines to prepare for extreme weather events and reduce those events' impacts on their infrastructure, personnel, and communities. Customers will have access to two WeatherNext models:

- WeatherNext Gen, a probabilistic system that provides better forecasts of both day-to-day weather and extreme events up to 15 days ahead than current ensemble models widely used today
- WeatherNext Graph, a deterministic system that predicts medium-range weather conditions up to 10 days in advance.

These models' weather forecasts could help energy customers more accurately predict energy demand and expected supply, better anticipate and prepare for storms, and protect their assets. Retailers can optimize inventory management based on anticipated demand fluctuations; supply chain businesses can proactively reroute shipments; and manufacturers can optimize production schedules based on weather impacts. Customers can leverage historical predictions for backtesting and real-time models for ongoing operations in BigQuery and Earth Engine. This work helps to keep the lights on and our communities safe.

"WeatherNext will change how businesses use AI for business critical operations affected by weather, including better planning for retail inventory, logistics disruptions, manufacturing production needs, distribution line maintenance, and many other uses,' said Carrie Tharp, VP, Global Solutions & Industries, Google Cloud. "By providing our most advanced weather forecasting AI technology, our customers can make more informed decisions, have better-protected infrastructure, and stronger business continuity as weather patterns evolve."

"Opening WeatherNext to enterprises expands its applications from the research lab to the real world," saidPete Battaglia, Director of Research for Sustainability, Google DeepMind. "It puts companies in the driver's seat to proactively prepare for extreme weather and better serve their communities."

One of the first companies to adopt WeatherNext is Carrier, a global leader in intelligent climate and energy solutions. Carrier is working with Google Cloud Consulting to develop and deploy its Home Energy Management System (HEMS), which combines dedicated battery storage with advanced HVAC systems to serve as an intelligent energy optimizer in homes. By leveraging Aldriven insights, Carrier's HEMS solution will dynamically adjust HVAC energy consumption based on real-time weather forecasts and grid conditions, enhancing energy efficiency and grid resilience while maintaining uninterrupted homeowner comfort. With WeatherNext, Carrier can further refine HEMS's forecasting capabilities, helping residential and commercial customers better manage energy demand, lower costs, and make more energy-efficient choices.

"By integrating Google Cloud's AI platform with Google DeepMind's and Google Research's groundbreaking WeatherNext models into our advanced HEMS platform, we are creating smarter energy solutions that will help drive efficiency, resilience, and sustainability," said Hakan Yilmaz, chief technology and sustainability officer, Carrier. "This collaboration will help take grid resilience capabilities to new levels and unlock greater value for our customers."

WeatherNext is available now to Google Cloud enterprise customers. To request access to the data, visit deepmind.google/technologies/weathernext/. Contact your Google Cloud account representative or contact Google Cloud Consulting to learn more about how Google Cloud can help you build custom solutions. Businesses can also learn more by registering for a Google Cloud visit at CERAWeek, and keep up with the latest news on ournewsroom and blog.

About Google Cloud

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infrastructure, custom-built chips, generative AI models and development platform, as well as AI-powered applications, to help organizations transform. Customers in more than 200 countries and territories turn to Google Cloud as their trusted technology partner.

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