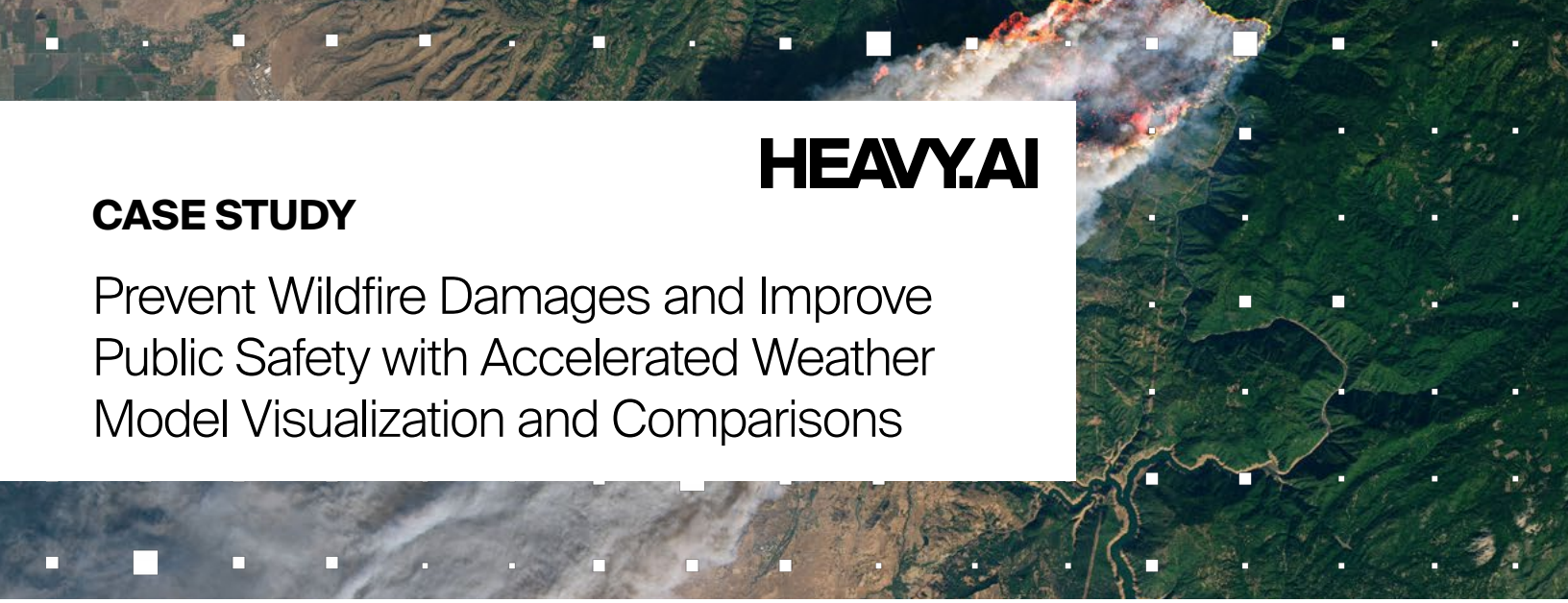

HEAVY.AI

CASE STUDY

Prevent Wildfire Damages and Improve Public Safety with Accelerated Weather Model Visualization and Comparisons

At a Glance

Challenges

- Slow legacy GIS turnaround time; approximately 6-hours to view available models
- Geotemporal data volumes and rendering limitations forced users to downsample and use lower resolution imagery
- Couldn't overlay and compare model results due to size and complexity; unseen insights

Impact

- Estimated to prevent hundreds of millions of dollars in future property damage annually

OBJECTIVES

A prominent California utility's meteorologists needed to quickly understand and communicate the risk and potential impacts of weather events (e.g., wildfires) on their distribution network to staff and systems responsible for public safety power shutoff; to provide more specific and targeted weather forecasts to various stakeholders using continuously changing models that overwhelmed their legacy GIS solution; and to compare the results of their detailed atmospheric models with national and European models to ensure accuracy.

SOLUTIONS

HEAVY.AI is now their core platform for preventing and managing wildfire threats. They combine high-resolution geospatial data (e.g., vegetation health, fuel loads, temperature, wind speed & direction, active fires, burn scars, and more) with massive amounts of data generated by their in-house atmospheric models to view, process, distill and deliver timely reports on critical weather events and wildfire potential.

HEAVY.AI ADVANTAGES IN UTILITIES

Faster model results: Reduced turnaround time for model visualization from 6-hours to 5 minutes

Unlocked **100,000x more data** with higher-resolution imagery, geodata, and model results usable; 1-2 km to 0.5-1 m

More **accurate, trustworthy forecasts**. Improved confidence in forecasts by using more granular results and model comparisons

About HEAVY.AI

HEAVY.AI provides advanced analytics that empower businesses and the government to visualize high-value opportunities and risks hidden in their heaviest location and time data. HEAVY.AI originated from research at Harvard and MIT Computer Science and Artificial Intelligence Laboratory.

Leading government, telecommunications, energy, utilities, and higher education organizations use HEAVY.AI to support high-impact decision-making in previously unimaginable timelines by harnessing the massive parallelism of modern GPU and CPU hardware. This analytics capability unifies today's exploding data volumes from multiple sources for a real-time, interactive visual experience. It can be deployed in the cloud and on-premise.

HEAVY.AI

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