

SOLUTION:
DataINDUSTRY:
Public sectorCOUNTRY:
United StatesNCAR | NATIONAL CENTER FOR
ATMOSPHERIC RESEARCH

“When our predictive models are higher fidelity, when they can be run more quickly, responders can use them more effectively to understand risks and make informed decisions. Upgrading to the latest generation of supercomputer will equip us with even more of the processing power we need to reach our goal and help firefighters protect themselves, protect property, and save lives.”

– BRANKO KOSOVIĆ
DIRECTOR, WEATHER
SYSTEMS AND ASSESSMENT
PROGRAM, NCAR

→ EXPLORE DIGITAL GAME CHANGERS



**Hewlett Packard
Enterprise**

BETTER WILDFIRE MODELS SAVE PROPERTY AND LIVES

For first responders, quickly and accurately anticipating where wildfires are headed is critical to successful containment. But wildfire behavior is heavily influenced by local conditions and terrain, which many forecast technologies do not resolve. NCAR is harnessing the latest advances in science and supercomputing to derive life-saving insights from vast amounts of disparate data. Now, the team is supercharging its modeling environment to be even more predictive, granular, and hyperlocal.

OBJECTIVES

- Enable more accurate predictions of wildfire spread
- Enable more timely information on wildfire behavior
- Improve understanding of wildfire variables, uncertainties

REQUIREMENTS

- Enhance physical data via machine learning
- Accommodate complexity resulting from multitude of variables
- Ensure models deliver results quickly

SOLUTION

Existing platform

- HPE SGI 8600 system

New system announced Jan 27, 2021

- HPE Cray EX supercomputer
- Cray ClusterStor E1000 Storage system
- HPE Slingshot
- NVIDIA® A100 Tensor Core GPUs
- HPE Cray Programming Environment
- NVIDIA AI and HPC software

OUTCOMES

- Support insights into terrain, conditions to within 100 feet
- Equip stakeholders to get predictions within 1–3 hours
- Improve ability to model variables and quantify uncertainties

ADDITIONAL RESOURCES

- [CASE STUDY](#)

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