



HELPING AT&T SAFEGUARD ITS INFRASTRUCTURE AND PLAN BETTER IN LIGHT OF RISE IN EXTREME WEATHER

THE CHALLENGE

As the climate evolves, extreme weather events are becoming more intense and more frequent, and that's wreaking havoc on infrastructure in the U.S. and beyond. In 2017, there were 16 events in the U.S. that caused \$1 billion or more in damages. Around the world, there were 29 such events. Even taking into account inflation, that is a significant increase over previous years.

Companies with physical infrastructure that is exposed to the elements are particularly vulnerable to this new dynamic. For example, natural disasters have cost telecommunications giant AT&T (Dallas) \$847 million since 2016, including \$626 million in 2017 alone.

THE COLLABORATION

Seeking to get a better handle on the changing climate and the implications for its business, AT&T turned to the U.S. Department of Energy's (DOE's) Argonne National Laboratory for help. Argonne is home to leading climate scientists as well as the supercomputing resources needed to create accurate climate projections.

Because the Southeastern U.S. was an area in which AT&T was hit particularly hard in recent years by hurricanes, floods, and other extreme weather, the company wanted to pilot its work with Argonne in that region — specifically, Florida, Georgia, North Carolina, and South Carolina.

Utilizing rare supercomputing resources and cutting-edge modeling techniques, Argonne climate scientists were able to deliver to AT&T neighborhood-level projections 30 years into the future for factors such as coastal flooding, inland flooding, and extreme winds.

THE IMPACT

- AT&T was able to overlay Argonne's climate projection maps with maps of the company's infrastructure systems, thus allowing AT&T to identify vulnerabilities as well as areas that are more attractive for future infrastructure.
- In coordination with Argonne, AT&T has made Argonne's high-resolution forecasting insights available to the public, including universities, municipalities and others to use in their own climate-risk analyses, which has the potential to benefit entire communities.

CONTACT

Argonne National Laboratory
9700 South Cass Avenue
Lemont, Illinois 60439
Phone: 630-252-2000
www.anl.gov/partners