Enabling Faster Storm Response with UbiVu AI Models

Prioritize efforts, make crews more effective and restore power faster with the power of data.

LIMITED VISIBILITY IMPEDES EFFECTIVE STORM RESPONSE

In recent years, extreme weather events have become more frequent and severe, creating significant challenges for municipalities and utilities responsible for maintaining critical infrastructure. Ensuring the continuous delivery of essential power and street lighting services while mitigating the risks associated with downed power lines and utility poles has become more difficult.

Many municipalities and utilities struggle with limited visibility into realtime issues across their networks. This lack of situational awareness hinders their ability to respond effectively when storms occur. As a result, restoration efforts can be inefficient, leading to prolonged outages, increased safety risks, and higher operational costs. Advanced reporting and monitoring services can speed the recovery.

AN INTELLIGENCE-LED APPROACH TO RESTORING CRITICAL SERVICES AFTER A STORM

Ubicquia's Storm Report, powered by UbiVu® AI models, equips utilities and municipalities with crucial data about their streetlights, transformers, and utility poles. Our AI models and skilled data scientists perform **digital inspections to pinpoint issues like downed poles, electrical faults, and transformer outages, along with their exact locations**. This information allows infrastructure managers to target problems accurately, leading to faster and more focused repairs. As a result, municipalities and utilities can restore services quicker, reduce risks to the public, and lower operational costs.

Our reports rely on data from Ubicquia's intelligent sensors, which are deployed in over 800 cities, offering real-time insights and root cause analysis even during storms. The Storm Report integrates machine learning with extensive field testing and expert knowledge in asset management, enhancing operational efficiency and service reliability.

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BOOSTING GRID RELIABILITY AND RESILIENCE FOR FASTER STORM RECOVERY



Reliability



UbiGrid® and UbiCell® sensors monitor critical infrastructure. Their data is analyzed to identify vulnerable grid components and opportunity for proactive maintenance. This improves operations and helps utilities harden the grid for storms.

Resiliency

Enhances grid resilience by providing real-time data on outages and infrastructure damage, allowing for faster identification of weak points and proactive repairs. This targeted approach minimizes disruptions, ensuring a more robust and reliable power grid during extreme weather events.



Uses digital inspections to assess and prioritize damaged infrastructure. Identifies most critical areas, like downed streetlights or compromised grid segments to speed up post-storm restoration and ensure that the grid is better prepared for future events.

GENERATING RELIABLE DATA

Ubicquia's Storm Reports are built using:

- 1. Ubicquia smart grid and smart streetlight sensors
- 2. UbiVu asset management and analytics platform
- 3. Ubicquia critical infrastructure data scientists

AI TO MONITOR CRITICAL INFRASTRUCTURE DURING A STORM

Ubicquia uses AI to monitor infrastructure in realtime during a storm. This provides visibility on power outages and impacted poles in real-time as they occur. This information is then put in context on a map to show which counties and which feeders have the highest rate of occurrence of power outage or affected poles, and which critical infrastructure has been impacted. But that's not all the AI can do. It has also been trained to rank the urgency of these events. A downed pole that is still energized, a power outage near critical infrastructure and a damaged light fixture will all be ranked by importance allowing for appropriate planning and response in a storm situation.





STORM REPORTING PROCESS



THE POWER OF THE NETWORK EFFECT

Ubicquia's advanced analytics platform groups all Ubicquia devices to develop "network effect" level insights about storms and provide on-demand reports of outages and impacted poles. This gives utilities and communities real-time visibility during storms, enabling adjustable staging and response decisions. Following the All Clear, a final damage assessment report can be downloaded.

PROFESSIONAL SUPPORT

Ubicquia provides reporting support for all UbiCell, UbiGrid and UbiHub customers with optional around the clock monitoring options. Utility and lighting specialists support planning and response efforts while data scientists work closely with customers on reporting needs.

About Ubicquia

Ubicquia®creates intelligent infrastructure platforms that are compatible with the 360 million streetlights and 500 million transformers that line our streets. They deliver energy savings, enhance public safety, bridge the digital divide, and improve grid resiliency. Ubicquia products are deployed by more than 700 customers including some of the largest cities, utilities, and mobile operators across North America.

To learn more:

www.ubicquia.com



info@ubicquia.com

