

## DATA CENTER MONITORING VANTAGE AND GODADDY



Santa Clara, CA

# Weather Monitoring for Data Center Management

"In the Data Center industry, accurate monitoring of weather conditions is crucial to operate the facility within ASHRAE specifications, while maintaining low PUE (Power Usage Effectiveness)." — *Justin Harp, Director of Operations Engineering for Vantage*



### Summary

The field of Data Center Infrastructure Management employs weather monitoring to help:

- Manage Operations
- Improve Efficiency
- Plan for the Future

Vantage Data Centers and GoDaddy, a leader in internet domain sales and web hosting, both use weather stations from Columbia Weather Systems to accomplish these objectives.

### Challenge

Data centers utilize a large amount of energy. Keeping these centers at an appropriate temperature while also managing power usage effectiveness is a constant challenge. Being able to utilize the outside weather conditions is hugely advantageous. Instant weather readings, along with historical data, are key for overcoming these challenges.



## Solution

[Orion Weather Stations](#) were outfitted on data centers for both Vantage and GoDaddy. The Orion is an all-in-one sensor that captures a large variety of data without any moving parts.

Data collected by these stations feeds directly into the heating, ventilation, and air conditioning (HVAC) control systems.

“This allows real time control based on outside weather, and also historical data review when planning for operational capacity.” Justin Harp from Vantage explained.

The Building Management System uses this data to determine when to bring in fresh outside air instead of using mechanical cooling to control the data center temperature. This greatly improves the energy efficiency of the facility.

For both Vantage and GoDaddy, the BMS is connected via the [Weather MicroServer](#) which offers various industrial protocols as well as Internet monitoring capabilities for the weather stations.



*Orion Weather Station™ shown with a Weather MicroServer™. The Weather MicroServer can easily connect to most control systems.*



*GoDaddy's Orion Weather Station installation on the roof of their Phoenix data center with lightning rods on either side to help protect the sensor.*

## Meeting ASHRAE Standards

[ASHRAE](#) sets standards for energy efficiency and sustainability in the heating and refrigeration industry. The BMS systems are calibrated according to these standards. Efficiency protocols are triggered if outside air temperature, dew point, and relative/absolute humidity are within ASHRAE specifications.

“In the Data Center industry, accurate monitoring of weather conditions is crucial to operate the facility within ASHRAE specifications, while maintaining low PUE (Power Usage Effectiveness),” says Justin Harp.

Derek Nelson, Mechanical Operator and Controls Administrator for GoDaddy added, “Additionally, it provides data for historical efficiency analysis and severe weather alerts to local and remote operating teams.”

Harp concludes, “Working with Columbia Weather Systems has been great for Vantage. They quickly respond to technical questions, and work well with us to insure the correct systems are ordered for each facility. Really has been a wonderful partnership for us.”

## Professional Weather Stations. Professional Weather Monitoring.

Integrating cutting-edge technology in met sensor and monitoring options, at Columbia Weather Systems our job is to make weather monitoring easy, so professionals like the teams at Vantage and GoDaddy can focus on doing their job best. We offer fixed-base, vehicle-mount, and portable weather station configurations for professional, industrial, and government applications.

Call or email to find out how we can help make weather monitoring easy for you: 1 888 508-7375 / [info@columbiaweather.com](mailto:info@columbiaweather.com)

For additional information visit: [ColumbiaWeather.com](http://ColumbiaWeather.com)

