



# THE COMPUTERWORLD HONORS PROGRAM

---

## CASE STUDY

LOCATION:  
*Atlanta, Georgia,  
United States*

YEAR:  
*2006*

STATUS:  
*Laureate*

CATEGORY:  
*Media, Arts and  
Entertainment*

NOMINATING COMPANY:  
*Verizon*

### ORGANIZATION:

The Weather Channel Interactive

### PROJECT NAME:

Disaster Recovery Expansion

### Summary

The Weather Channel (TWC) has a mission of delivering timely and accurate weather information and is widely acknowledged as the #1 brand in weather. Launched in 1983, TWC has become an important resource for millions of cable television viewers and is one of the most widely distributed cable/satellite networks, reaching over 89 million households. TWC is also known as the weather authority that experts turn to. In severe weather situations it is a vital resource for state and local public safety officials. Over the past few years, The Weather Channel Interactive, Inc. (TWCi) has grown weather.com to become a top 10 Web site with an average of over 30 million unique users visiting every month for weather and lifestyle related information. During the unprecedented 2005 hurricane season weather.com set usage records as it provided crucial storm forecasts and updates to visitors. It is imperative that both companies be available not only during severe weather events like hurricanes and blizzards but everyday to help viewers and users better plan their day. It is for this reason that TWC and TWCi teamed with Verizon to implement the infrastructure integration disaster recovery plan.

### Introductory Overview

Over the last five years TWC and TWCi have focused on reducing the impact of a disaster by eliminating single points of failure, improving security and reliability, and investing in needed redundancy and infrastructural improvements. In addition, significant work has taken place centralizing data storage and migrating to low-cost open source solutions. These latter two initiatives paved the way for a comprehensive plan to be implemented by mid-2006. Prior to the significant capital investments over the last five years, a comprehensive disaster recovery plan would have been extremely costly, overly complex and manually intensive. By mid-2006 we expect, through an orchestrated set of implementation steps, to realize the most important disaster recovery goal: the ability to continue to provide valuable weather information to our viewers and users in the event of a disaster. Verizon is playing several key roles to enable our implementation: 1) primary co-location datacenter; 2) dedicated, high-speed (10 Gig) links connecting the Verizon datacenter, TWC headquarters and TWC satellite uplink facility; and 3) several Internet Gig links. All at a cost effective rate that fairly balances added TWC and TWCi



# THE COMPUTERWORLD HONORS PROGRAM

## CASE STUDY

**ORGANIZATION:**

*The Weather Channel Interactive*

**PROJECT NAME:**

*Disaster Recovery Expansion*

**LOCATION:**

*Atlanta, Georgia, United States*

**YEAR:**

*2006*

**STATUS:**

*Laureate*

**CATEGORY:**

*Media, Arts and Entertainment*

**NOMINATING COMPANY:**

*Verizon*

capability with expense.

### Benefits

Following the implementation of the Q1 2006 infrastructural changes and the installation of broadcast equipment at the uplink site in Q2 2006, TWC and TWCi will have a robust disaster recovery environment that will provide redundancy between three locations (Verizon datacenter, TWC headquarters, TWC satellite uplink facility), a bi-directional telecommunications infrastructure and a viable studio solution at the uplink facility; specifically:

- Reduced outage period as live studio operations transfers from TWC headquarters to TWC satellite uplink facility.
- Automated restoration of cable signal within minutes.
- Instantaneous failover of weather.com Web site and no impact to users of Desktop Weather applications.
- All weather data feeds and forecasts would be available to all TWC and TWCi platforms
- Advertising capabilities would be available on TWCi and TWC platforms.
- TWC's primary localization technology (Weather Stars), found in thousands of cable head-ends around the US, would operate normally including: locals and long-form support with Earth Station studio functionality.
- No impact to weather.com, distribution partners, wireless and desktop customers
- Enables remote access to TWC and TWCi resources through a secure connection
- Migration of our data backup and recovery strategy from a tape solution to a disk-to-disk solution thereby enabling our ability to quickly recover from a system, server or site loss. This strategy allows for disk-to-disk backups from our primary facility to our Verizon co location facility on a near real-time basis.

### The Importance of Technology

Migrating to open source software, moving from high-end (i.e. costly) servers to Intel and AMD based servers, and leveraging the Verizon capabilities and cost effectiveness is allowing us to implement a fully connected triangle of computing resources. Also the standardization of platforms (enabling sharing of hardware) and collaboration between the TWC and TWCi companies allow us to implement a more robust disaster recovery solution while minimizing capital expenses. In addition, the DR plan leverages Verizon and the Earth Station to support both on-going operations and business continuity which is a more practical way to utilize capital expenditures.

### Originality

With the assistance of Verizon we are able to cost effectively implement a DR solution that leverages TWC and TWCi infrastructure without large capital costs for standby equipment. We are implementing a triangle of computing capacity that is active – active – active and securely connected with a 10Gig ring.



# THE COMPUTERWORLD HONORS PROGRAM

## CASE STUDY

**ORGANIZATION:**

*The Weather Channel Interactive*

**PROJECT NAME:**

*Disaster Recovery Expansion*

**LOCATION:**

*Atlanta, Georgia, United States*

**YEAR:**

*2006*

**STATUS:**

*Laureate*

**CATEGORY:**

*Media, Arts and Entertainment*

**NOMINATING COMPANY:**

*Verizon*

Verizon is playing a key partnership between TWC and TWCi and is the enabler and foundation for their DR plan.

What makes the TWC / TWCi DR strategy viable, cost effective and relatively unique is that it is predicated on leveraging the advantages of low-cost Intel and AMD processors and server farms of mostly open source operating systems. Open source solutions have been a key technology strategy for over five years within TWC and TWCi. 2006 also marks the year where every server device supporting both internal and external customers will utilize an Intel or AMD processor. While the debate about the cost effectiveness of open source swirls outside of The Weather Channel, internally we believe it is a competitive advantage and a key differentiator.

### Success

The project will be fully implemented by the end of Q2 2006. "Verizon is part of the computing facilities triad and is providing all the network connectivity. With them our disaster recovery implementation will benefit all the viewers of The Weather Channel and the users of weather.com Web site." Explained Dan Agronow, CTO of The Weather Channel Interactive, Inc.

"This project, while helping to ensure our continued ability to provide a product to our customers in the event of a disaster, also takes into concern the ever increasing need for information security, data protection and the need to maintain a secure environment. Throughout the design and ongoing implementation of this project, security was at the forefront throughout all phases of this initiative." Explained John Penrod, CISO of The Weather Channel, Inc.

### Difficulty

•What were the most important obstacles that had to be overcome in order for your work to be successful? Technical problems? Resources? Expertise? Organizational problems?

•Often the most innovative projects encounter the greatest resistance when they are originally proposed. If you had to fight for approval or funding, please provide a summary of the objections you faced and how you overcame them.

Key steps taken during the last several years by TWC and TWCi to remove obstacles to enable a more comprehensive disaster recovery strategy have included:

- Migrating to open source alternatives, resulting in a move away from high-end (i.e. costly) servers and support solutions. Additionally, this option allows for standardization of platforms (enabling sharing of hardware) between TWC and TWCi
- Centralizing data backup for TWC and TWCi to more effectively manage and restore data assets (limited backup for the broadcast environment)
- Investing in infrastructural improvements to external facilities, particularly the Earth Station (TWC's satellite uplink facility) to support additional functionality
- Selecting the Verizon co-location facility where we can leverage a 'hardened environment' with built in disaster recovery capabilities, room for expansion, and high-speed internet connectivity
- Implementing a telecommunications infrastructure to meet capacity demands with flexibility



# THE COMPUTERWORLD HONORS PROGRAM

## CASE STUDY

**ORGANIZATION:**

*The Weather Channel Interactive*

**PROJECT NAME:**

*Disaster Recovery Expansion*

**LOCATION:**

*Atlanta, Georgia, United States*

**YEAR:**

*2006*

**STATUS:**

*Laureate*

**CATEGORY:**

*Media, Arts and Entertainment*

**NOMINATING COMPANY:**

*Verizon*

to support our changing business requirements

- This phase of our DR strategy is a greatly improved level of protection and functionality than exists today. Subsequent phases will focus on continuing to enhance our on-air capabilities in the event of a disaster. In addition, we will continue to focus on the people and process side of business continuity planning.