

Case Study

Vykon™ allows Broadwing to exceed reliability goals... win new customers



**Network Operations Center (NOC)
Austin, TX**

In 1999, Cincinnati Bell and IXC Communications merged to form Broadwing, a next-generation telecommunications company. In the same year, Broadwing earned the International Engineering Consortium's InfoVision Award for owning and operating the first national Internet Protocol (IP) network, which ranges 18,500+ linear miles.

Broadwing delivers end-to-end communications solutions to large and medium-sized companies by providing their customers with the bandwidth required to bridge gaps in the virtual enterprise.

In addition to delivering cutting-edge voice, data, Internet, and IT solutions, Broadwing is committed to customer service. From the industry's only installation guarantee, to 24/7 (24 hours per day, 7 days per week) customer service, Broadwing is there to ensure customers' systems are up and running!

In order to provide top-notch customer service, Broadwing demanded 99.999% reliability at their mission critical data centers. While discussing their needs for "no down time" with Teng and Associates, Broadwing learned of Tridium's Vykon™ solution.

The Challenge

To achieve 99.999% reliability at their data centers, Broadwing needed to control, monitor, and respond to alarms in dissimilar systems already installed in their facilities. Some of these systems used LonWorks® technology,

others Modbus®, and yet others were proprietary in nature, such as the Data Aire computer room air-conditioning systems.

Furthermore, the systems needed to be accessible to several tiers of Broadwing personnel from all across the country simultaneously and in real-time via Broadwing's private WAN.

Broadwing

- First telecommunications company to provide fully deployed, all-optical network.
- Broke both bandwidth capacity and provisioning benchmarks by provisioning 38 OC-192 circuits in less than 60 days
- Five consecutive quarters of revenue growth greater than 20 percent
- Industry's only installation guarantee

Broadwing's Needs

- 99.999% reliability for mission critical data center facilities
- Efficient management of alarm messages for mission critical systems

Vykon Provided

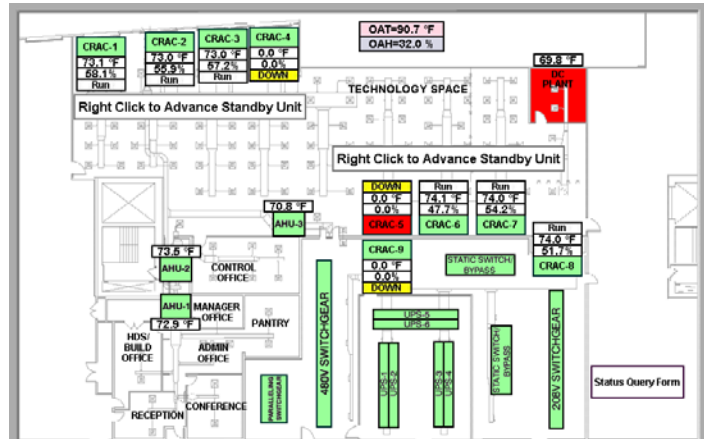
- Integration of LonWorks®, Modbus®, and proprietary protocols
- 99.9999% reliable communications and alarm transmission
- Ability for several tiers of Broadwing personnel from across the country to control, monitor and respond to alarms simultaneously
- Private, secure Broadwing WAN access
- Real-time access to multiple dissimilar subsystems

Benefits

- Ability to monitor, control, analyze, and evaluate the performance of its facilities
- Lower life cycle costs
- Report generation to backup contract agreements with clients
- Win new clients with proven reliability

Vykon™ created the standard for all future Broadwing data centers and reduces life cycle costs.

Reliability at Broadwing's data centers is 99.9999% to 99.99999% with Vykon installed. Broadwing is so pleased with the results they are looking into placing Vykon in other data centers.



Main Floor Plan

The Solution

When looking for an open protocol system to meet Broadwing's needs, Teng and Associates turned to Tridium's Vykon™ suite of products.

"We looked at Broadwing's needs and Tridium's Vykon fit all the requirements," said John Huston, Director of Technology Integration at Teng and Associates.

Vykon allowed for the integration of all of Broadwing's protocols—LonWorks®, Modbus®, and proprietary—increasing accessibility and reliability of the information.

Vykon's powerful graphic features enabled efficient continuous monitoring of the information contained within the various sub-systems such as HVAC, CRAC, and DC/AC power. Alarms are transmitted via a private, secure WAN using SNMP to the NOC (Network Operations Center), where they are processed.

Delk Watson, Senior Project Manager for Broadwing, not only wanted an open protocol system, he also wanted a system that provided flexibility to perform complex alarm strategies.

Now, with Vykon, an alarm is generated simultaneously to the operators based at the mission critical facility in Chicago, IL and the managers based at the operations center in Austin, TX.

Further, reliability at Broadwing's data centers is 99.9999% to 99.99999%, exceeding their requirements. Broadwing is so pleased with the results they are looking into placing Vykon in other data centers.

The Benefits

Reliable communications and alarm transmissions, as well as report generation help Broadwing backup contract agreements with their customers and are an important factor in generating new customers.

In fact, a new client stated that they signed with Broadwing after seeing the level of control and monitoring they had at their data center's operations office.

Not only is Vykon setting the standard for Broadwing's data centers, but it is also helping them reduce maintenance life cycle costs associated with their data centers.

Since Vykon is monitoring the HVAC, CRAC, power, and other systems, problems are detected immediately. Maintenance is then able to solve the problem before it damages other systems. Thus, the equipments life expectancy and reliability is increased, while total system life cycle costs are decreased.



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