



Tachyon Case Study: Transportable Communications How Tachyon helps Hendrick MotorSports win Championships

Where Speed is Everything

In the world of NASCAR, where last minute technical adjustments can make the difference between taking the checkered flag and spending the day making repairs on pit road, high-speed network communications are critical. The NASCAR schedule is a 10-month road trip of 60+ hours per week where cars need to be adjusted, repaired and performance monitored. Dynamic management decisions have to be made from remote locations, away from the race shop headquarters of the NASCAR teams.

The days of exchanging faxes and FedEx documents are no longer viable for racing teams, as decisions need to be made rapidly -- especially on race day. However, virtually no NASCAR tracks are equipped with flexible, affordable high-speed broadband Internet access and the onus is put on each racing team to develop its own communications strategy.

A Partner to One of NASCAR's Most Dynamic Teams

Hendrick MotorSports (HMS) is one of the most successful racing teams in NASCAR with its team members including Jeff Gordon and Jimmie Johnson — who have six Sprint Cup Series point championships combined — along with their newest superstar and NASCAR's most popular driver, Dale Earnhardt, Jr. HMS, which owns four cars on NASCAR's top Sprint Cup circuit, needed to find a reliable, robust and most importantly, portable communications solution to support its large mobile operations— one which could quickly be deployed and taken down on a weekly basis.



After evaluating several solutions, HMS selected Tachyon Networks ("Tachyon") broadband satellite solution. HMS found that typical VSAT providers could only provide low bandwidth, insecure Internet access for e-mail and Web browsing. It was Tachyon's enterprise network connectivity, carrier grade performance and security capabilities that made the difference. The decision to choose Tachyon was further supported by guaranteed network performance and a strong service level agreement.

The Tachyon Solution fits Evolving NASCAR Technology

NASCAR today has evolved from seat-of-the-pants garage racing to a high tech industry almost totally dependent on engineering and data. Horsepower, aerodynamics, chassis adjustments, shock performance, tire pressure and many other factors can cause a tenth of a second difference in lap times, which can make the difference between racing for the win and going home early. Even changes in barometric pressure and humidity can alter a team's race strategy and require major adjustments to a car.



Utilizing a self-acquiring satellite system and a secure communications network built on a suite of patented TCP/IP compliant technologies, Tachyon provides HMS with unparalleled high speed connectivity, which is more than capable of supporting its entire onsite crew at every event.

HMS relies on Tachyon's solution to obtain mission critical information on race day, providing the team with instant and secure access to their car setup databases, custom-built SQL-based applications and their corporate MS Exchange server. They also have full use of the Internet web resources, which includes real-time weather information to help them anticipate rain delays or changes in track conditions. The ability to accurately predict weather has given HMS a competitive advantage on many race days by helping them to make the right call on pit road at the right time, allowing its race cars to make up time and track position on other teams that did not have up-to-date weather intelligence.

Broadband Connectivity, for Race Day and Beyond

After HMS's caravan of race crews and equipment arrives at a track, the first order of business is setting up the Tachyon broadband satellite network. Within minutes, HMS engineers have their network up and running using Tachyon's enterprise grade service as the centerpiece of HMS's innovative and secure wireless network that is set up and dismantled every few days.

To judge the Tachyon broadband network by its performance on Sunday race days alone would be missing the big picture of race preparations supported by the Tachyon network. NASCAR teams put their cars through a labyrinth of technical tests nearly every week during sanctioned test events. During these test events over 50 sensors are attached to the race cars as they circle the track, gathering vital information for the race teams. With the Tachyon network in place, HMS can transmit this critical technical data efficiently and securely back to their race shop in Charlotte, North Carolina, and into the hands of their top engineers for instant feedback to the crew at the track. This helps HMS to keep key personnel back at the shop and more productive by working on the cars for the next several races while allowing their drivers to spend more time testing their cars and less time waiting on the sidelines.



"Tracks don't have dial tones, let alone broadband access in the garage areas, and we need to get into our corporate network throughout the day," said Chris Newsome, director of IT at HMS. "We utilize Tachyon to rapidly access critical information, through an integrated, highly secure network environment. Without the Tachyon transportable broadband network connection, we would still have enough knowledge at the track to get the cars ready to race, but we would not have the information-based dynamic decision making capabilities that are so important to helping us win."

Winning the Race

In today's Internet age, HMS is leveraging Tachyon's portable broadband satellite network to achieve a competitive advantage and bring all the comforts of their corporate LAN on the road from Daytona



to Dover and Talladega to Texas. In an industry where the fastest and most dependable cars win, the top teams are requiring the same attributes from their communications networks.

During the 2008 season, HMS will continue to leverage satellite communications for competitive advantage, with their eye on a third consecutive Sprint Cup championship. Prior to even starting their engines on race day, the #5, #24, #48 and #88 cars will already have a lead on their competition.