

CASE STUDY

NASCAR RACING TEAM

THE STORY

No “I” in “team”? Although true, COVID-19 has forced nearly everyone to find creative new ways of working together. NASCAR protocols, for example, put a restriction on the number of team personnel onsite at each race or live event. To remain competitive, this NASCAR team needed a solution that would allow track personnel to communicate with other key personnel – primarily the team’s race engineers – during these high-activity races and events.

INDUSTRY

Professional Sports

APPLICATION

Remote Dispatching
Radio over IP

THE CHALLENGE

The team – made up of two cars – needed to route audio communications across a large distance, while maintaining team efficiency and synchronization. Put more bluntly, even if all team members could not be physically located at the track, they needed to hear and respond to all the audio communications as if they were there.

To facilitate audio transmission and ensure system connectivity regardless of track or location of communication devices, a VLAN was provided by JPS networking partner, AGILE. This network provided the backhaul for JPS to link communications between the drivers, pit crew, race engineers, and other personnel.



STORY

COVID-19 has forced nearly everyone to find creative new ways of working together. NASCAR protocols, for example, put a restriction on the number of team personnel onsite at each race or live event.



Challenge

The team needed to route audio communications across a large distance in real time.



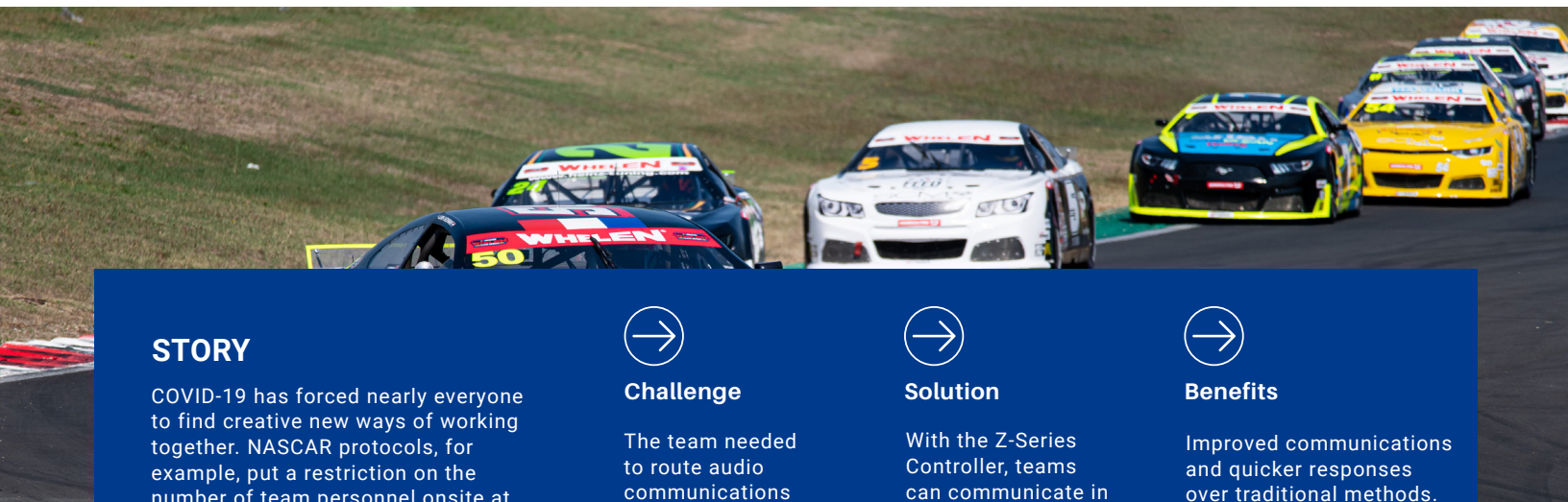
Solution

With the Z-Series Controller, teams can communicate in real time with remote engineers.



Benefits

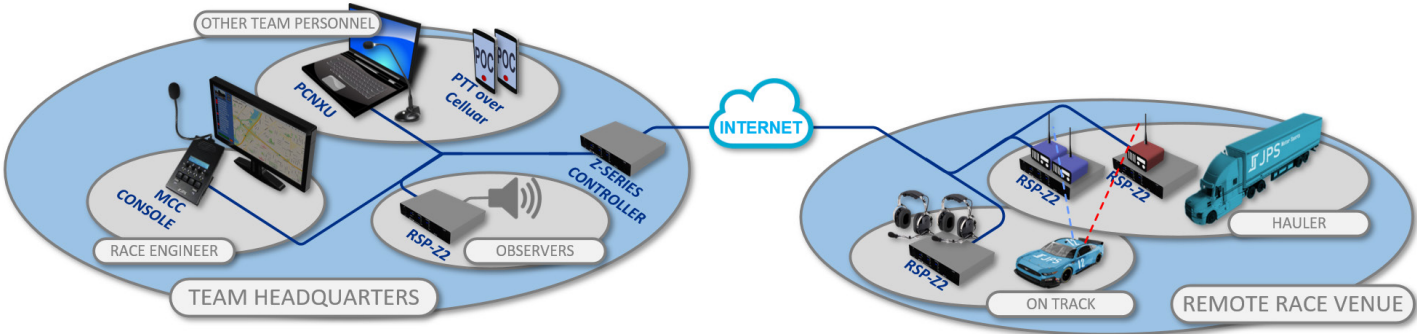
Improved communications and quicker responses over traditional methods.



THE SOLUTION

At the center of the solution, a Z-Series Controller was placed at the teams headquarters. At the track, RSP-Z2 Dual Channel Gateways located in the team's car haulers interface the audio from the one digital and two analog radios equipped in the racecars. Additionally, each trackside pit box was equipped with an intercom system, which is also linked to an RSP-Z2 Gateway.

Each of the eight channels of audio from the RSP-Z2s at the track was then routed to the Z-Series Controller and distributed to the corresponding race engineers. Each race engineer was equipped with an MCC-4 Multi-Channel Console, and could simply push a button to respond to the designated driver and crew. In order to share the experience with off-track personnel, it was simple to add a speaker console along with Push-to-Talk over Cellular (PoC) users who monitor all the audio on the system in real time.



Lastly, as analog radio channels are open to all race teams and media personnel at the track, JPS disabled the ability for race engineers to respond on these channels (where they may inadvertently share sensitive information). While they maintained the ability to listen on these channels, they could only communicate with the corresponding driver using the secure digital radios.

THE RESULT

The race engineers may have to social distance, but team efficiency and synchronization should not suffer. Using RSP-Z2 Gateways, a Z-Series Controller, and MCC-4 Consoles, they can listen to all four of their channels and relay critical information, analyzed data, and recommended changes back to the appropriate parties at the track.

Additionally, the network topology of this system allows the racing team to maintain these stable links without making a single configuration change. No matter where their next race is, they are able to consistently rely on their new powerful and efficient communications solution.

KEY BENEFITS

- + Improved communications and quicker responses over traditional methods.
- + MCC-4 ease of use and versatility. Separate PTT and volume controls.
- + Secure VLAN ensures system connectivity. Restrictions on interfaces, when necessary.