Hewlett Packard
Enterprise

Objective
Leverage social and traditional media to engage more effectively with racing fans, create a more engaging sports entertainment experience, and provide business intelligence to NASCAR ecosystem

Approach
End-to-end hardware and software solution, designed, developed and implemented by HPE, to create one-of-a-kind platform to capture and analyze online activity in real-time, and enable real-time responses to that activity

IT Matters
- Enables the capture and quick analysis of the hundreds of thousands of social posts generated by fans during a typical race

- Stores over 26.8 million NASCAR mentions generated in the most recent year for future analysis and study, up 55 percent over its first season of operation

Business Matters
- Improves ability to engage with racing fans, ensuring positive online 'buzz', building positive brand awareness, and supporting higher ticket sales

- Boosts competitiveness for sports entertainment share-of-mind and dollars, as NASCAR-related social volumes increased 55 percent across national races - 66 percent for the 2014 Daytona 500

- Delivers better insight into fans' response to sponsor activations, boosting the value of sponsor relationships and helping ensure future sponsorship support to offset operations costs

- Detects social trends in real-time, enabling swifter, more effective crisis management, helping to protect brand and manage fans' perceptions of events

NASCAR® captures big data insight to drive compelling engagement

End-to-end HPE solution enables real-time engagement with fans' via social media

"What we tried to accomplish with our Fan and Media Engagement Center was to bring a best-in-class solution from a single source. Hewlett Packard Enterprise is not just a service provider, but also a solution provider, a hardware provider, and a provider of the software itself. And that is what allowed us to bring it all together."

– Steve Worling, IT managing director, NASCAR

A pioneering approach to fan and media engagement

NASCAR needed a way to monitor and make sense of social, digital, broadcast and traditional media conversation and coverage. It engaged HPE to provide an end-to-end solution comprising HPE services, HPE software, and HPE hardware to build a state-of-the-art Fan and Media Engagement Center. NASCAR is now better able to engage with fans and media in ways that surprise and delight.

Challenge

Connecting with sports fans
A generation or two ago, the average sports fan had much more leisure time - and far fewer entertainment choices. Fans typically followed a handful of traditional sports, either by attending events in person or watching on network television.

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How things have changed.

Today, fans' options have expanded to include extreme sports and international competitions. In addition to in-person and network broadcasts, spectators can follow sports from the multiple cable channels dedicated to them, or stream events to their smart phones, tablets, or PCs. The competition for sports fans has never been fiercer.

Which is why the National Association for Stock Car Auto Racing (NASCAR) invested heavily - and collaborated with HPE - to produce a solution that allows it to connect with fans, including the young fans that represent NASCAR's future. Dubbed the NASCAR Fan and Media Engagement Center (FMEC), this sophisticated data capture and analysis platform is based on the HPE Interactive Media Command Center (IMCC) solution. It enables NASCAR to detect, analyze, and respond to online chatter in real-time. It's a capability that's unique in the entertainment industry.

Monitoring 14,000 online conversations per minute

Today, customers can easily share unfiltered information, opinions, and rumors about businesses and their products and services.

To make the situation even more challenging, these conversations are mere droplets in a sea of unrelated chatter. In NASCAR's case, during races the company needs to analyze over 14,000 online conversations per minute.

NASCAR's answer to this challenge can be found on the 8th floor of NASCAR Plaza in Charlotte, NC, in a 500-square foot room that features a bank of thirteen 47-inch HP displays. The room is NASCAR's FMEC nerve center: an enormous dashboard that allows the company to understand and interact, in real-time, with anyone who is chatting about NASCAR events, drivers, and media coverage.

Solution

End-to-end solution ensures functionality and timeliness

NASCAR's work on FMEC began several years ago when it compared the capabilities of several vendors, including HPE, IBM, Dell,

and Atos, plus a number of sports-related professional service firms.

HPE emerged as the most suitable vendor for the project for several reasons. HPE has a long and successful track record within the communications, media, and entertainment industry. It offers the industry consulting services NASCAR needed to ensure the project would meet the company's functional requirements and would launch on time. Its services portfolio includes the HPE Interactive Media Command Center (IMCC) solution, an end-to-end solution comprising HPE design, integration, and implementation services along with cutting-edge technology from HPE's software and hardware portfolios.

"By far, HPE was the best end-to-end solution that we had out there," notes Steve Phelps, executive vice president and chief marketing officer, NASCAR. "And HPE's consulting services were better than anyone's."

Once NASCAR chose its vendor, HPE deployed a team of consultants to validate and refine the project requirements and architect the FMEC platform.

The HPE consultants' first step was to identify the factors driving the platform's technical requirements. The platform requires sufficient capacity to handle multiple terabytes of data: FMEC collects data, via Application Program Interfaces (APIs), web scraping, and online feeds, from numerous sources, including Twitter, Facebook, Instagram, Reddit, online news articles, broadcast programming, and blog posts. And it needs to be highly reliable, with built-in redundancy to minimize the risk of downtime.

Capacity, big data processing, high availability

To meet these requirements, the HPE consultants selected components from the HPE Converged Infrastructure portfolio: an HPE BladeSystem server with HPE ProLiant BL460c Gen8 Server Blades, paired with HPE 3PAR StoreServ Storage. With this hardware foundation, HPE ensured the FMEC would have the requisite capacity and processing power. "HPE's blade servers are best-in-class," notes Steve Worling, IT managing director, NASCAR. "We were able to slide them into

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55%

year-on-year increase in
social media activity related
to NASCAR

our current environment and build a back-end hardware platform to support our FMEC solution."

The technology also offers a number of automated, embedded management and monitoring tools, as well as built-in redundancy, to ensure the FMEC would meet NASCAR's requirements for around-the-clock availability.

HPE then installed a powerful suite of software from HPE Big Data Analytics - HPE IDOL (Intelligent Data Operating Layer) and HPE Vertica. To address NASCAR's fundamental business challenge - the need to extract actionable insights hidden within terabytes of data - HPE deployed HPE IDOL software. Unlike traditional technologies constrained by linguistic and grammar rules, this highly scalable platform uses probabilistic and pattern-matching algorithms to recognize concepts and relationships in both structured and unstructured data.

As the FMEC engine, HPE Vertica and HPE IDOL provide a unified and comprehensive view into all the content NASCAR needs to track, from social media sites to the wire service.

Hadoop and HPE Vertica provide additional functionality around consolidating, aggregating, and streaming real-time social media data.

The HPE services professionals integrated HPE IDOL with two other products that are part of the HPE Big Data Analytics ecosystem. HPE implemented Tibco Spotfire visualization software to support interactive data visualization to help ensure NASCAR can spot important data quickly. Another application, RAVN Connect, supports collaboration and information-sharing, making it easier for NASCAR to monitor the activity of online communities.

The project's second challenge is processing speed: FMEC has to crunch the flood of data it monitors, and it has to do so in real-time. To address this issue, HPE implemented the HPE Vertica Data Analytics Platform, a columnar database that supports high-speed data queries. With this technology

in place, NASCAR is able to not only view results of algorithms it planned in advance, but also execute new queries on the fly, if circumstances require. This heightens the interactivity of the FMEC platform, allowing NASCAR to 'play with the data' in ways that enable fresh insights.

Finally, to build the FMEC user interface, HPE installed two of its business display systems. One of the solutions, HP 47-inch LCD Interactive Digital Signage Displays, also supports FMEC interactivity: it lets NASCAR execute FMEC functions via a touch-screen interface. The other, HP 47-inch Micro-Bezel Video Wall Displays, provides additional views into the FMEC dashboard, maximizing NASCAR's ability to monitor critical data feeds.

Benefit

45 million NASCAR mentions
The launch of the FMEC platform was a transformative event for NASCAR. "It's changed how we do business significantly," says Phelps. NASCAR can now quickly glean insights across the virtual ecosystem. It can analyze fan engagement during events, or after NASCAR or sponsor announcements; measure how partner brands are perceived; and identify fan likes and dislikes.

The platform's powerful Big Data capabilities allow it to keep abreast of these conversations in real-time, despite the volumes of data involved. During a typical race it monitors more than 150,000 tweets and social posts. That adds up to millions of data points: in its first season, FMEC captured more than 18 million NASCAR mentions and has now captured more than 44 million mentions.

Analyzing that data allows NASCAR to gauge fans' responses to events and drivers. When NASCAR tested its new Gen-6 NASCAR car specification at the Auto Club 400 race event, for example, it knew within a couple of hours that the fans' reaction to the car was overwhelmingly positive. This kind of data helps NASCAR make more effective decisions about corporate direction and investments. It also helps ensure that NASCAR events will entertain auto racing fans.

Solutions at a glance

HPE services
- HPE Interactive Media Command Center (IMCC) Solution
- HPE Industry Consulting Services for the Media & Entertainment Industry

Primary software
- HPE Big Data Analytics- Hadoop (MapR)- HPE IDOL (Intelligent Data Operating Layer)- RedHat® JBoss EA
- RAVN Connect
- TIBCO Spotfire Analytics & Visualization
- HPE Vertica

Hardware
- HPE BladeSystem
- HPE ProLiant BL460c Gen8 Server Blade
- HPE 3PAR StoreServ Storage
- HP LD4720tm 47-inch LCD Interactive Digital Signage Displays
- HP LD4730 47-inch Micro-Bezel Video Wall Displays

NASCAR also uses the FMEC platform to deliver more value to sponsors and partners. It used FMEC's data collection, analysis, and reporting capabilities to produce a brand analysis for one major U.S. sponsor, showing fan engagement for each of the sponsor's drivers. This enabled the sponsor to devise more effective and impactful social media campaigns.

Being able to validate the impact of event sponsorships helps NASCAR win sponsor support, helping to offset the overhead costs of events, improving NASCAR's profitability.

Not just data—it's actionable data
FMEC is far more than a passive data-collection device, however. "As the CMO of NASCAR, my goal is to grow this sport," Phelps notes. "The FMEC isn't just data, it's actionable data. It's data that helps drive fan engagement, which sells more tickets to the racetracks."

"Nothing like our Fan and Media Engagement Center exists. Not anywhere else in sports or entertainment.".

– Steve Phelps, executive vice president and chief marketing officer, NASCAR

And it is working for NASCAR. A year after launching FMEC, volumes of NASCAR-related social mentions rose 55 percent across national races. Social volume for the 2014 Daytona 500 was up 66 percent over the previous year's race.

Creating positive buzz helps keep NASCAR top-of-mind. It reinforces the strength of the NASCAR brand. It keeps fans engaged. All of these factors help NASCAR compete more

effectively for sports fans, which translates into higher ticket sales.

FMEC also ensures that NASCAR keeps abreast of how broadcast and print reporters are covering its races and sponsors, which allows the company to be more proactive in its public relations.

And FMEC helps NASCAR with crisis management. When competition-related penalties levied during the 2013 Chase for the Sprint Cup polarized fans, NASCAR used FMEC to obtain a holistic view of the situation. It was able to compare media coverage and public sentiment, and drill down into specific issues related to the penalties and the drivers affected. Matched with other internal sources, this allowed NASCAR to respond intelligently with PR and issue mitigation - and to work with fans to ensure they had the information they needed to form their opinions.

Over time, NASCAR expects to find even more ways to leverage FMEC's functionality. "We're truly just scratching the surface of this thing," says Worling. "It will continue to get better and better for us over time."

Whether considering the success of FMEC to date, or its future, NASCAR gives a tremendous amount of credit to HPE, as both a consulting resource and a provider of cutting-edge hardware and software technology. "What we tried to accomplish with our Fan and Media Engagement Center was to bring a best-in-class solution from a single source," notes Worling. "HPE is not just a service provider, but also a solution provider, a hardware provider, and a provider of the software itself. And that is what allowed us to bring it all together."

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