



Avaya IP Solutions Help Honda Racing F1 Gain a Competitive Edge in Formula 1 Racing

Challenge:

Widely dispersed mobile teams, as well as distributed HQ campus faced high costs and inconsistent quality in mission-critical communications; rapid growth in workforce hindered collaboration among work locations.

Solution:

Avaya proposed, designed, and installed an IP telephony solution, featuring Avaya MultiVantage™ Communications Applications running Avaya Communication Manager and IP Telephones to streamline communications within main campus locations. Through an innovative partnership with Nokia, Avaya Mobile applications extended Communications Manager functionality to mobile phones, thus enabling easier access and more effective collaboration among mobile employees.

Value Created:

- Savings of 30% in communications costs for mobile workers
- Increased collaboration and productivity among headquarters personnel throughout five campus locations
- Decreased IT maintenance costs and resources, through single-supplier solution
- Faster, more productive linkage of mobile workers with headquarters experts
- More secure and reliable operations, through business continuity features
- Easily scalable infrastructure to accommodate continued growth

Brackley, Northants, UK— What does it take to succeed on the Formula 1 racing circuit? It takes stamina: for eight months of the year, teams endure a grueling pace of fortnightly races on five continents. It takes confidence: races are performed under the critical eyes of 3.5 million attend-

ees and a broadcast audience of over 3 billion fans across 180 countries. And it takes constant improvement: a team that merely maintains a steady performance level is guaranteed to fall behind its competitors.

For Honda Racing F1, every decision and every investment is focused on gaining a competitive edge. The seven-year-old racing team has emerged as a leader on the Formula 1 racing circuit, in part because of relentless attention to detail

"Our goal is to win," said David France, IT Director. *"Everything we do adds up to help us gain a competitive advantage."* Every employee is focused on that goal, from the factory workers who produce 15,000 components per year, to the technicians who operate the on-site test facility, to the engineers who redesign every component on average of 12 times during the racing season, to the drivers who step behind the wheel. And it includes the IT team who keep the communications flowing among all the critical processes.

"We have two distinctly different parts to our business," said France. *"We are a light engineering organisation, similar to other small manufacturers. In our factory, we design and manufacture over 80% of the components that go into our race cars. The other part of our operation is motor sports, which includes testing and racing Formula 1 cars."*

The two parts of the business converge to address the five crucial areas for Formula 1 success: the driver, the engine, the tyres, aerodynamics, and the race performance and strategy. These five elements must work together seamlessly and flawlessly for the team to achieve its highest performance level. And communications technology enables that to happen.

Business Challenge: Supporting a Mobile Workforce

With teams on the road for eight months a year, communications presented formidable logistics challenges. Honda Racing F1 competes in the 19 races worldwide that comprise the Formula 1 World Championship. And to each race, the organisation sends two drivers, three race cars, 6 engines, 88 tyres and 70 personnel. Furthermore, test teams participate in an additional 24 test events per year, trying out new parts, components, and race strategies for the benefit of the racing team.

For both the race and test teams, communication with headquarters is vitally important. Trackside engineers need to be in constant communication with the designers back at headquarters, examining the performance of individual components, discussing strategies and alternatives, and sharing images and data.

To support these considerable communications needs, Honda Racing F1 sent an IT team member to every single race and test event. Every week, the team member dealt with a different phone company in a different country, often in a different language, to arrange for installation of analog voice lines and ISDN lines to support data communications. Because every local phone company had its own procedures and performance standards, sometimes things went smoothly, sometimes not.

Once the analog lines were installed, phone numbers were assigned to track personnel and published internally. "The engineers, marketing, spare parts group each had a new, separate number each week. The designers and other headquarters employees had to keep track of the numbers, so they could reach someone immediately," France said.

Business Growth Outpaces Communications Capacity

At its headquarters in a business park in Brackley, Honda Racing F1 rapidly outgrew its original buildings and expanded into additional sites that became available in the business park. Today, the company's business offices, factory, design studios, engineering labs, and test facilities span five buildings.

Despite their proximity, the Honda Racing F1 facilities were unable to operate as a single entity, in part because corporate growth had outpaced the communications system. Two separate Avaya DEFINITY® G3si servers were on site, each with a separate ISDN circuit. That meant employees who worked just a few meters from one another might as well have been across the county, rather than across the business park.

To call a colleague in another building, employees had to dial through the local exchange. For incoming callers, the problem was worse: The two separate exchange lines meant that a caller had to call one of two main

numbers. The attendant answering an incoming call couldn't transfer to an employee across campus, but instead had to manually look up and read the number to the caller, who had to place a second call to the correct exchange.

The dual communications systems caused extra administrative work as well. *"If we moved a member of the team from one side of the park to the other, we had to assign a new phone extension and publish the number,"* France said. *"And with two separately operating switches, maintenance tasks were doubled."*

Avaya IP Solution: Solving Capacity Issues and More

When Honda Racing F1's continued growth threatened to overwhelm its communications system, they needed to find a solution.

"That was the trigger," said France. *"There was no more capacity on the DEFINITY server, so we were constrained in assigning phones to new employees. And we were building a new test facility, a state-of-the-art wind tunnel that was going to require even closer collaboration among employees. So we knew we had to quickly make a change."*

An Avaya Gold Certified BusinessPartner, conducted a preliminary network assessment on behalf of their long-time client, and called in Avaya Global Services to help with a design. The team recommended an IP solution that would solve the capacity problem — and do much, much more. *"When we started talking to Avaya, it became apparent that there is a whole new generation of technology that would give us improvements to other areas of the business. These by-products were bonuses that came out of the discussions,"* France said.

The Avaya solution consisted of Avaya MultiVantage™ Communications Applications with Communication Manager software running on redun-

dant Avaya S8700 Media Servers, three Avaya G650 Media Gateways and two Avaya G700 gateways with Local Survivable Processors. In addition, they implemented 4610 and 4620 Avaya IP Telephones and Avaya IP Softphone software.

Implementation in a Tight Window of Opportunity

With the decision made, the project was ready to move forward quickly. *"Our racing season extends from March to October. Winter testing runs through mid-December, then we have off-time starting in the middle of December, before the holidays,"* France said. *"We can't afford to have our telecommunications off-line during either racing or testing. So we ended up with a very small window of opportunity."*

"Avaya decided that we should do the implementation in that window. They said they would muster the resources and equipment to get the job done."

And so it happened. Like a Formula 1 team that has to get its race cars, equipment and people ready in time to line up on the grid for each race, the project team implemented the new system neatly and successfully in the tight window between critical dates. In a collaborative effort between the Honda Racing F1 IT team, the Avaya team, and the BusinessPartner, the implementation successfully took place over two weekends in December.

Going Mobile with Avaya and Nokia

With the IP Solution in place, employees enjoyed greater accessibility. Except when they were walking across campus. Or traveling to test sites. Or conferring in the plant. *"Our key employees rarely sit at their desks,"* France said. So he approached Avaya about finding a way to extend the powerful features of the Avaya Communications solution to mobile employees.

The Avaya account team had just the solution, thanks to a recently announced partnership with Nokia, a leader in the mobile telephony market. The Avaya Mobile for Series 60 solution allows clients to extend Communication Manager functionality by downloading Avaya Mobile software to a special dual-use Nokia Series 60 mobile phone. The software links the mobile phone to the Communication Manager software on the corporate server, effectively turning the mobile phone into another endpoint on the corporate telephony network. Employees can receive calls made to their business number from their mobile phone, and an intuitive user interface makes it easy to invoke business telephony features such as abbreviated dialing, transfer, multiparty conference to better serve their clients. In addition, because the mobile device is an extension of the corporate IP-PBX, business calls can be recorded and tracked, useful for financial and professional services applications.

Honda Racing F1 was quick to sign up to trial the new offering, providing the enhanced phones to 20 key employees whose travels take them around the world, throughout the UK, or just across campus.

The results? Employees using the phones – as well as those back at the office – appreciate the ease of “one number” accessibility and the greater productivity it allows. Teams around the world are fielding calls directed to their desk phones, and when they need to call colleagues, it’s much easier for them to dial the same extension they use back at the office than to dial a long string of digits.

“It’s all about making it easier to communicate with each other,” said France. “Traveling employees can’t wait 24 hours to get a message that was left back at their desks. With the mobile solution, now they are immediately accessible.”

France said Honda Racing F1 plans to continue the phone use after the trial

ends. Which is good news to certain staff members who have embraced the new technology: *“We have some employees who have threatened unpleasant consequences to any member of the IT team who tries to take their phones away.”*

Business Results: Greater Collaboration and Productivity

Honda Racing F1 is already seeing dramatic process improvements both at the headquarters campus and on the road.

Increased collaboration among employees: The new, feature-rich IP phones have earned high praise from employees. *“The functionality and feature set makes it easier for employees to work together. Employees can reach anybody in the business park using the directory on the phone. They have the ability to conference together, to transfer calls,”* France said. Employees who are using Nokia mobile phones with Avaya Mobile software benefit from access to that same functionality on the road or across campus.

Faster linkage with suppliers: Suppliers and partners who call Honda Racing F1’s headquarters are linked with the right department faster. All outside calls are handled through a single main number. *“We have a single receptionist who can field all calls and transfer them between locations,”* France said. *“This makes it easier for our suppliers to work with us.”*

Reduced IT maintenance requirements: With a single communications system, maintenance requirements are significantly reduced, freeing up IT resources for more productive work.

More secure, reliable operations: Since communications are so critical to Honda Racing F1’s operations, the team ensured that the solution supported business continuity plans. *“We put S8700 media servers in the main server room, strictly for redundancy.*

And we located the two G700s with local survivable processors on the other side of the business park. The disaster recovery capabilities for business continuity are another useful by-product of the IP solution,” France said.

On the Road: Faster, More Consistent Communications

Easier collaboration among remote teams: For the racing and test teams, collaboration with headquarters is much easier. *“Wherever our remote teams are operating, they can contact anyone at the factory by dialing their usual extension numbers. And the headquarters team can reach the remote employees through their usual extension number,”* France said. Furthermore, using IP Softphone, on-site engineers simply plug into their computers to send images back to headquarters.

Increased productivity for IT team: *“The IT guy on the team is not spending his time installing analog lines, when he builds a network at each location”* France said, *“freeing up his time for more complex tasks”.*

Cost savings: France said the new IP solution has saved Honda Racing F1 over 30% on telephony costs incurred at overseas locations. *“We eliminated the cost of installing analog lines at each location. In addition, we’re not paying international phone charges for calls to and from the site,”* said France.

Looking Ahead: Platform for Growth

Most important for Honda Racing F1, the new IP platform will support the company’s continued growth.

They are already implementing additional applications, including a name dialing capability through Avaya Interactive Response software. *“We’ve recorded the names of every employee. Now callers from within or outside the company can simply speak the name of the person they want to speak*

with, and be connected without the need for a receptionist," France said. "We're also installing Avaya Modular Messaging, so we can pass voice messages to people at the track, rather than having them call in. We also plan to look at IP Wireless phones."

"We look for a competitive edge, and our communications systems can

help us get that competitive edge. If our engineers, designers and testers can collaborate more easily, that can translate into a competitive advantage.

"It's important for us to choose business partners who understand our business. Our experience working with Avaya shows that Avaya understands what we're about," France said.

Learn More

For more information on how Avaya can take your enterprise from where it is to where it needs to be, contact your Avaya Client Executive or Authorized Avaya BusinessPartner, or visit us at www.avaya.com

ABOUT HONDA RACING F1

Honda Racing F1 has emerged as one of the leading teams in Formula 1 racing. Backed by two powerful, global organisations — Honda Motor Co. and team founder British American Tobacco — the racing team is poised for a well-deserved place alongside F1's elite. At its headquarters in Brackley, UK, located just six miles from the Silverstone Grand Prix racetrack, the team maintains state-of-the-art manufacturing and testing facilities, including a brand-new full-scale wind tunnel.

The team has enjoyed a rapid rise on the Formula 1 circuit. They participated in their first Grand Prix event in 1999, and won their first points just a year later. During the 2001 season, they had their first podium wins in Spain and Germany. In 2004, they enjoyed their best season ever, with a second place in the 2004 Constructor's Championship and drivers Takuma Sato, Jenson Button, and Anthony David earning recognition for their consistently high performance. For more information about Honda Racing F1, visit www.hondaracingf1.com.

Applications	Systems	Services
- Avaya MultiVantage™ Communications Applications - Avaya Communication Manager - Avaya IP Softphone - Avaya Mobile for Series 60 Solution - Avaya Interactive Response	- Avaya S8700 Media Servers - Avaya G650 Media Gateways - Avaya G700 Media Gateways with Local Survivable Processors - Avaya C360 Switches - Avaya 4600-series IP Telephones - Nokia Series 60 Mobile Phones	- Avaya Global Services IP Telephony Consulting & Integration - Implementation and Maintenance provided by Avaya BusinessPartner

All statements in this Case Study were made by David France, IT Director, Honda Racing F1.