

SUCCESS STORY



ACCELERATED TEAM PERFORMANCE



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Graeme Hackland, IT Manager, Renault F1 Team

Company Profile

- The Renault F1 Team, www.renaultf1.com, is based in the UK and France and is one of the most successful Formula 1 motor racing teams.

Industry

- Motor Racing

VERITAS Solution

- Data Protection
- Storage and Server Management
- Application Performance Management
- VERITAS Consulting

Business Drivers

- Protect and help ensure 24x7 access to business-critical data
- Manage rapid growth in data
- Provide enterprise-class backup protection

VERITAS Products

- VERITAS NetBackup™
- VERITAS Cluster Server
- VERITAS i³™
- VERITAS Backup Exec™
- VERITAS Enterprise Vault™
- VERITAS Business Critical Services
- VERITAS Education

Business Benefits

- Single, consistent enterprise backup across all platforms
- Significant reduction in the time required to perform regular backup and recovery
- Minimal manual intervention enables the Renault F1 Team to re-deploy valuable assets
- Significant increase in the amount of information that can be stored
- Rapid detection and resolutions of application performance shortcomings

The Renault F1 Team are consistent front runners in Formula 1. Renault first entered Formula 1 in 1977 — and almost 30 years later, they are one of the sport’s leading performers, regularly qualifying at the front of the field and racing to podium finishes. VERITAS Software can take some of the credit for the team’s performance. By standardizing on a comprehensive portfolio of VERITAS solutions and services, the team is maximising the speed, availability and manageability of its data. Recent deployments of VERITAS Cluster Server, VERITAS e-mail archiving solution and VERITAS Software’s Application Performance Management suite are fuelling the success.

THE SITUATION

The Renault F1 Team operates from two sites. The first of these is in Viry-Châtillon, France, where the engine is designed and built. The second, a 3,500 sqm headquarters at Enstone, UK is responsible for chassis development, together with information technology and other functions. Graeme Hackland, IT Manager for the Renault F1 Team is based at Enstone and all too aware of the importance information technology (IT) makes to the successful operations of the team.

“IT underpins virtually everything we do,” he explains. “Whether it’s design, telemetry, or manufacturing, we need to guarantee high availability and data security for our sophisticated IT network infrastructure.” For a comparatively small organisation which employs 480 staff in the UK, the Renault F1 Team’s environment is very heterogeneous. There is a wide variety of server operating systems, from Novell and Windows, to Linux and UNIX. There are more than 450 desktops and laptops, almost 200 UNIX workstations, clustered servers, and — most recently — a Linux cluster. This breadth of operating systems and servers is matched by an expansive application environment: it includes a variety of applications, databases, very technical specific applications for Formula 1, as well as regular office applications, such as email.

“We’ve witnessed a huge explosion in data growth over the last two years and we’re expecting that to continue over the next three years,” says Hackland. “Currently, we back up 24 terabytes of data a month. Five years ago the data that came off the car at a circuit would fit on a CD quite easily, now it won’t even fit on one DVD. So in five years alone we’ve seen a huge growth in on-car data. There’s also more detail in our CAD application now and that’s led to a growth in the amount of data that we have to store. So although it’s the same number of drawings to define the car now as it was five years ago, it’s a lot more storage, because there’s more detail to the design.”

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THE SOLUTION

Originally, the team's objective was simply to deliver data protection, but as time has passed, it has adopted a more innovative spirit towards technology. "VERITAS is a very innovative company. Their portfolio has grown, the support has increased — to the point now where VERITAS Software supports the Renault F1 Team in backup and restore, application performance, data integrity and storage management. The company is one of the team's most important strategic partners," Hackland explains.

The bed-rock of the relationship is VERITAS NetBackup™. Prior to its introduction, the team relied on DAT units with no tape management system or robotics, so they had to load the tapes manually. VERITAS NetBackup™ has enabled the Renault F1 Team to manage a many-fold increase in the amount of information stored and managed across the enterprise. "Now we can load the library with however many tapes we require, and VERITAS NetBackup™ automates the entire process from beginning to end," Hackland continues. "The other key benefit is a significant time saving. The backup and restore process has been streamlined through email notification. Each morning, we receive automatic notification that the backup has been successful, and warning of any incomplete backups."

VERITAS NetBackup's differential backup feature ensures that any data changes subsequent to the most recent full backup are backed up on a daily basis. Each day's changes being accumulated onto the previous days. The Renault F1 Team exploits this feature so that, in the unlikely event of data loss, the team only needs to restore the last full backup and the most recent incremental backup to recover the disk. The resultant time saving ensures business can be resumed as quickly as possible.

The consequences of the Renault F1 Team losing critical business data would be inconceivable. All the design, aerodynamic and stress analysis data is crucial to the survival and success of the team. Large amounts of critical statistical and engineering information on the car's performance gathered at the track side during the

test sessions and Formula 1 races are stored on a portable server in the pit area. This information is relayed via a virtual private network (VPN) to headquarters for backup. This information, including specification sheets, engineering notes and telemetry data from the cars themselves is copied onto a separate HP server for unparalleled availability.

To ensure complete data protection and availability throughout the organisation, the Renault F1 Team is using VERITAS Backup Exec™ to backup its Windows environment. Its powerful functionality, together with its easy-to-use interface, ensures reliable, automated backup and recovery across multiple devices.

While backup ensures that data is protected and stored appropriately, archiving simplifies the process of managing and finding specific data. For this reason, the Renault F1 Team recently deployed VERITAS Enterprise Vault™ to create a total archiving platform for its e-mail environment. "Almost every employee relies on email and VERITAS software improves the availability and performance of our e-mail system by archiving e-mail that is accessed less frequently. We can retain the archive on low cost storage devices, driving down the total cost of the e-mail system."

"VERITAS i³ is now very important to the Renault F1 Team—there's nothing like it out there in the market."

The team also recently replaced its existing HP Service Guard clustering solution with VERITAS Cluster Server. This delivers centralised management of the team's clustered UNIX, Windows and Linux server environments. The architecture-independent availability management solution proactively manages the team's applications, enabling them to ensure high availability in the heterogeneous environment. "Maximising availability and increasing performance are critical goals," he says. "Compared with HP Service Guard, VERITAS Cluster Server is less complex and significantly easier to manage. We can manage planned and unplanned downtime from a single, integrated console."

Another recent addition is VERITAS i³™. This simplifies the complex task of finding and fixing performance problems by tracking key performance indicators specific to the application environment. These metrics are then used to fine-tune the application resulting in faster transactions and response times. The impact is an application infrastructure that runs at peak efficiency and IT staff who focus on the implementation of custom

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application functionality rather than sustaining an inadequately configured infrastructure. Overall, VERITAS i³™ is helping the Renault F1 Team to make operational and capital cost savings, accelerate time to market for new applications and reduce risk.

“VERITAS i³™ is becoming more important to the Renault F1 Team—there’s nothing like it out there in the market. We’ve been looking for a product like this quite some time. Within the database itself, there are ways of checking the performance, but it’s very much just about the database. VERITAS i³™ goes beyond the database, giving us a view of the performance of the system from the machine all the way back to the server, and everything in between. I’ve not seen any other product that will give us that complete view.”

VERITAS Consulting was instrumental in the roll-out of VERITAS i³™ and many other components of the solution. They have provided almost 20 days of services in the past 12 months to design and deploy the software components. “I doubt we could have deployed VERITAS i³™ without services engagement,” says Hackland.

THE SUCCESS

This reliable, high performance environment is underpinned by world-class support from VERITAS Business Critical Services. The Renault F1 Team has been using the service almost since the start of the relationship. “VERITAS Business Critical Services have always been very important to us. We’re a global business; we travel around the world for eight months of the year to different circuits. Even out of season though — a period which is supposedly quiet — we’re ramping up our manufacturing and our design to get the new car out. We therefore need to be sure that we’re able to retrieve data and the applications are performing. That’s where we rely on the 24x7 support from VERITAS Software,” says Hackland.

The Renault F1 Team operates from two locations — one in the UK and one in France — and the team uses VERITAS Software’s ‘Fly to Site’ service to assist in ensuring uninterrupted availability. Hackland continues,

“VERITAS NetBackup is closely linked to the success of the Renault F1 Team.”

“The Renault F1 Team replicates all of its race and test data on both sites and we look to VERITAS ‘Fly to Site’ Engineers to help us with our disaster recovery strategy and our disaster recovery testing as well.”

It’s a similar scenario at the Renault F1 Team’s Viry-Châtillon base in France. Here, the team is using VERITAS NetBackup™ to ensure the optimal protection of their design studio’s technical data, which is used to design, manufacture and test the cars’ engines. The environment is hybrid, with a CAD system running UNIX (Catia) and processing clusters running Linux that are attached to SAN arrays. “The data we get directly from the race tracks is an important source of information for our teams,” explains Christophe Verdier, I.S. Director, Renault F1 Team France. “The information is also saved using VERITAS NetBackup™.”

The Renault F1 Team is migrating its central information system. VERITAS NetBackup™ will replace a CA ArcServe solution, which no longer fulfills the team’s requirements. As a result of the successful implementation of VERITAS NetBackup™ at the design studio, the IT team decided to standardise its environment on VERITAS Software. Verdier explains: “VERITAS NetBackup™ will enable us to enhance reliability and reduce costs in our backup process. We are also looking to protect our laptops with VERITAS Software’s Desktop & Laptop Option (DLO).”

VERITAS Software has enabled the Renault F1 Team in France to implement a unique solution at different geographical sites and to protect its numerous internal environments. The solution is reliable, it can be used by one, unified team and it securely protects the five terabytes of construction data. Importantly the open architecture means it can manage the Renault F1 Team’s multiple different platforms.

As in the UK, the French team has also called upon VERITAS Software’s consulting services to implement the products at Viry-Chatillon and to train the users. “Their professionalism, experience and expertise distinguish them from other vendors. That applies to consulting and training all the way through to the 24x7 technical support,” he explains. “VERITAS Software is a reliable partner with whom we hope to work for years to come,” concludes Verdier.