

Customer Story

Engineering Industry

Sahara Force India Formula One™ Team Uses Ericom Connect to Drive Race Car Improvements On-The-Go



Credit: Force India F1 Team

“Using Ericom Connect, the team can now render CAD models with near-zero latency from any race location in order to make changes to parts and have them shipped quickly back to the track; all this while eliminating the cost of shipping expensive and heavy CAD workstation hardware between testing and race locations.”

Bill Peters
Chief of Information Technology
Sahara Force India Formula One™ Team



BACKGROUND

Formed in 2007, Sahara Force India is a Formula One™ racing team based in Silverstone, United Kingdom. The team, owned by businessman Vijay Mallya, competes in races around the world. Since debuting with a tenth place finish in 2008, the team has experienced continuous growth and success.

SPEED IN ENGINEERING

In addition to employing skilled drivers and experienced pit crews, Formula One racing is won in the design office. Engineering is critical in optimising reliability, speed, and performance across all areas of the car, but particularly mechanics and aerodynamics. The process includes investing countless hours in design, computer simulation, prototyping, and manufacturing. The work is seen in the progress of changes evolving from the desktop to manufacturing and testing and on to the track.

CUSTOMER

Sahara Force India Formula One Team

INDUSTRY

Engineering, Sports, Motorsport

PRODUCTS

Ericom Connect™

CHALLENGES

- Streamline the process of interpreting and assembling redesigned parts at the track
- Enable Sahara Force India Formula One Team the flexibility to access and edit three-dimensional CAD models away from the factory without the use of bulky workstations
- Provide accelerated remote access to CAD software

SOLUTION

- Implement Ericom Connect to support remote 3D model rendering and modification easily and cost effectively

BENEFITS

- Expedites the time required to design, manufacture, and deliver parts to the track
- Simplifies and accelerates access to CAD models, eliminating the frustrating wait for large designs to load over remote connections
- Enables the viewing of fine detail in CAD models away from the factory, speeding up part fitment and modification at the track

EMPOWER ENTERPRISE-WIDE APPLICATION ACCESS

A BETTER WAY TO DESIGN

Sahara Force India team members require constant access to three-dimensional CAD models of the cars and components from the team's wind tunnel testing facility in Germany. Previously, team members worked solely using CAD workstations or pre-rendered data and were forced to take the workstations to the wind tunnel and other locations, testing away from the factory and thereby creating an inconvenience as well as delays for the team.

Additionally, the three-dimensional CAD models require a significant amount of computing power to load. Using their CAD workstations, the team often waited upwards of twenty minutes for individual images to render when working remotely, making it difficult for them to quickly view the detail of models and making components difficult to check and fit. This latency impacted productivity and would require additional time to test new designs.

TIME IS MONEY

With a tight and demanding racing and testing schedule, Sahara Force India needed a two-pronged solution, one that would allow their teams to access and edit important CAD models quickly without relying on bulky

workstations. A solution like this would accelerate the process of design modification, parts manufacturing, and delivery.

SIMPLE YET POWERFUL

Ericom Connect proved to be an ideal solution for the Formula One racing team. “Ericom Connect allows our team members to securely access CAD data from any of our locations, using any device, making the process of working on designs seamless and cost efficient. The easy-to-configure management interface and simple user and application assignment means that a usable system can be made operational very quickly.”

TRACKSIDE BENEFITS

While they initially required a solution to replace CAD workstations around the testing facility, the Sahara Force India team quickly found that they could extend the benefits of Ericom Connect to other remote locations, even trackside.

Sahara Force India spends a considerable amount of time outside of the wind tunnel at different track locations around the world. While in foreign locations, technical teams frequently need access to equipment and CAD models in order to make

technical adjustments to the cars as needed whilst in the field.

Using Ericom Connect's remote access capabilities, the team can now render CAD models with near-zero latency from any race location in order to review changes to parts and assemblies, ensuring the best possible fit and allowing for them to finish the car.

“In the racing industry, we require both speed and flexibility. Ericom Connect provides our team with a lightning-fast remote access experience, allowing us to work on large CAD files in the browser as if we were in the office using a desktop. As a result, our cars remain race-ready with the latest design changes, ensuring maximum performance.”

EXPANDING USE

Impressed with the ease and flexibility that Ericom Connect provided the team at the testing facility and during races, Sahara Force India is expanding the technology in other areas. For example, the team is now able to access eight other applications beyond their initial CAD application, including the team's purchasing system, ERP, and an in-house parts management system.

To learn more about Ericom's remote access solutions, please visit: <http://www.ericom.com/connect.asp>.