



# True Cybersecurity protects new era of mobility

# The ultimate race against time



### Challenge

On race day, every second counts for DS Virgin Racing's trackside engineers. Any loss of access to IT can be fatal for the team's fortunes. A cybersecurity solution that protects the priceless data used for minute-by-minute decision making is essential.

### Solution

Kaspersky Lab's world class cybersecurity technology and systems are protecting DS Virgin Racing's devices in its rapidly expanding IT infrastructure, adding its extensive motorsport experience to the team's efforts to win the FIA Formula E Championship.

### Benefits

Keeping DS Virgin Racing's IT safe, secure and fully-functioning improves the team's prospects – and supports the rapid development and deployment of electric motor technology into the mass market, helping to reduce harmful global pollution levels in the process.



The internal combustion engine was one of the most iconic inventions of the modern age. Now the race is on to deliver its long-term replacement, clean and super-efficient electric motors that are sustainable, practical and affordable - and still satisfy our enduring desire for mobility, speed and personal independence.

The FIA Formula E Championship, the world's first fully electric single seater street racing series, is at the centre of an international effort to develop the mass-produced, electric-powered vehicles that will eventually supersede today's petrol and diesel versions.

Some of the world's best automotive designers and engineers can be found in Formula E, a unique testing laboratory to fine tune batteries, motors and charging systems for their racing cars – bringing forward the day when we will all drive electric.

# Global leaders join forces

Where there are technological challenges and a need for innovation on a global scale, this is the ideal environment for Virgin and DS Automobiles, partners in the DS Virgin Racing Formula E Team.

Virgin's passion for technology is legendary, encapsulated in its Virgin Galactic spaceships. After years of development and testing, passengers will soon be transported to the outer edges of the earth's atmosphere, at speeds exceeding 2,500mph.

DS Automobiles continues its tradition for innovation, style and performance.
DS engineers have developed the entire drivetrain of the team's racing car, including the electric motor and inverter, as well as its cooling system, rear suspension and transmission.

And as DS Virgin Racing geared up for the 2017/18 Formula E season, including major investments in IT and a new headquarters building at Silverstone, its determination to mount a serious challenge for the Championship received a further boost.

Kaspersky Lab, already a team sponsor, is to step up its involvement by deploying its market-leading cybersecurity technology to protect all aspects of DS Virgin Racing's devices, both trackside and the corporate activities back at Silverstone.

Eugene Kaspersky, Chairman and CEO of Kaspersky Lab, says: "We've been looking at Formula E for some time now and feel it's the logical next step for us in continuing to educate motorsport audiences about the importance of automotive cybersecurity. The DS Virgin Racing Formula E Team is the obvious choice for us. Both grounded in technological innovation, we also share similar vision and passion in bringing that innovation both to our customers and the world."

# Kaspersky Lab stands guard on race day

The theory of marginal gains, in which thousands of minute improvements combine to produce a winning formula, could have been written with elite motorsport in mind. Data capture and analysis on an industrial scale produce the insights that help engineers and drivers to make fine adjustments to the car's set up and racing tactics.

On race day, at Formula E's challenging street circuit environments, fully-functioning IT systems are critical for success – and are tested to breaking point. Every team member is pushed to the limit, with access to telemetry required for minute-by-minute decision-making.

Crucially, with testing, qualifying and the race itself all taking place on the same day, any downtime or service interruptions are usually fatal to a team's chances.

Says Chief Technology Officer, Sylvain Filippi: "Kaspersky Lab's multi-year partnership is extremely important to us, not just because of their technical excellence, but also because of their history and experience in motorsport - they understand what it takes to win races. Now, the application of their world class endpoint security technology to protect all our devices as part of our new IT infrastructure will further improve our chances of taking more chequered flags.

"Having our IT functioning at 100% is absolutely critical, without it we can't go racing, we might as well go back to our hotel. Given the amount of work put in by the team, our sponsors and commercial partners to prepare for each race, the impact of a loss of IT is dramatic and points lost during a race can affect our entire season."

"Availability is key for us, we can't afford to have any systems down on race day, not even for a few minutes," adds IT Manager, Liam Grant. "We need 100% protection, all of the time"



"We strongly believe that by bringing the best partners together and using the best talent available in motorsport, we can make a positive difference and accelerate the pace of development so that electric vehicle technology will contribute positively to all road vehicles."

Alex Tai, CEO and Team Principal



Cybersecurity threats could come from close by or from the other side of the world - one of the beauties of the Kaspersky Lab network is that it is constantly being updated, so we always know what our risks are.

"Kaspersky Lab's endpoint security is very comprehensive, it works away in the background, managing itself, updating itself and just lets me know when there is an issue to deal with. It complements our new IT infrastructure perfectly, so it's very exciting to have Kaspersky Lab technology and expertise on board.

"As our relationship grows I am certain that there will be many more benefits to come, way beyond our technical partnership."





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Alexander Moiseev, CSO of Kaspersky Lab

# Partnership speeds up innovation

Kaspersky Lab's cutting-edge technologies are keeping connected and autonomous vehicles secured against cyber threats, on and off the race track. But it is the application of cutting edge technology to solve global problems that is the ultimate motivation for DS Virgin Racing and Kaspersky Lab.

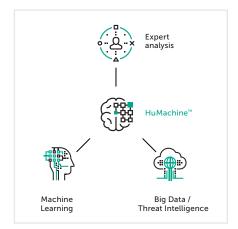
Alexander Moiseev, CSO of Kaspersky Lab, says: "The rapid progress we've made in automotive cybersecurity is in part due to our presence in motorsport, we use it as a testing ground for new concepts and ideas, which we then use in developing our solutions for the industry."

It is predicted that in the coming years Formula E will contribute to future worldwide sales of an extra 77 million electric vehicles, save four billion barrels of oil and reduce healthcare costs caused by pollution by €25 billion.

"Most of the innovation in today's street cars came from motorsport, but as cars have become more and more sophisticated in recent years, it has taken longer and longer for new developments to feed into mass production," explains Sylvain Filippi.

"But in Formula E we can innovate at very high pace and transfer these technologies straight into road cars – that's why there are so many manufacturers coming into Formula E – that's really exciting, purposeful and the reason we are here – we are validating new technologies.

"We could take the whole power train from our racing car and put it straight into a sports car sitting in a car dealership - that's the beauty of electric cars, it's a very simple architecture with far fewer moving parts. Within the next few years there will be many examples of developments in Formula E that have been transferred very quickly into everyday electric cars."



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## Kaspersky Lab UK Ltd

2 Kingdom Street, London, W2 6BD

# www. kaspersky. com

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