Dell Motorsport Solutions

Foreword by
Chris Aylett, CEO, MIA

Foreword

As a professional working in the UK motorsport industry, you will know of the hard work we have all put in to establish, and retain, our position at the forefront of world motorsport development and production.

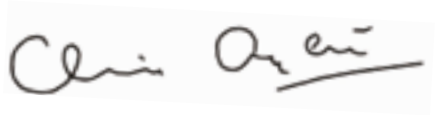
The important role played by computers in our £9 billion industry has changed beyond all recognition - from back-room obscurity to becoming central in everything we do - from enabling faster prototyping to analysing aerodynamics and power output.

Since well before the founding of the Motorsport Industry Association in 1994, our industry has always been unique, in working practices and demands for speed, both on and off the track. Today, many MIA members speak of their frustration when trying to find technology solution specialists with the skills needed for their businesses. Local IT firms are often very responsive, but can lack the specialised motorsport expertise required, or the ability to scale-up and provide support as companies and teams expand and demand more. At the other end of the spectrum, large multinational IT vendors can be expensive and slow to respond, seemingly unable to adapt their solutions to the demands of our dynamic and highly cost-sensitive business sector.

There is no question that Dell stands out from the crowd. They offer a UK motorsport solutions team with real motorsport expertise and the passion, willingness and ability to help motorsport customers of all sizes. Dell solutions are practical, standards-based, reliable and cost effective, and their support is outstanding. It's no coincidence that, increasingly, you see Dell notebooks lining the pits at Formula One™ races.

So I'm delighted to introduce you to this special guide to Dell Motorsport Solutions. As you will see, Dell solutions bring more efficiency, provide easier information and technology management, reduce costs and help to drive even more innovation into the business of the UK motorsport community. The MIA are proud to have Dell among our membership and of the winning benefits they bring to us all.

Kind regards,



Chris Aylett
CEO
Motorsport Industry Association

The Dell difference

Delivering an agile, efficient and scalable architecture that enables motorsport organisations to transform their competitiveness and drive down costs.

Connecting the whole team

Empowering more mobile and agile collaboration between team, partners and customers with anytime, anywhere, any-device access.

Motorsport cloud computing

Helping motorsport organisations leverage cloud technologies to increase business agility and competitiveness.

Intellectual property protection

Delivering a joined-up, flexible security framework that enables manufacturers and race teams to collaborate fully while staying secure.

Data analytics

Transforming test and race data into actionable insight which can improve race performance — fast.

On-event infrastructure and support

Optimising on-event efficiency and car performance by cost effectively leveraging your existing IT infrastructure.

"With over ten years' experience in motorsport, we understand the issues driving change within the sport."

Tim Griffin
CEO/VP & GM
Dell UK

The Dell difference

The need for a new approach

The IT infrastructure demands of today are a far cry from what they were in the past. The IT function in motorsport organisations is no longer in the business of managing hardware or software - it is now required to deliver the services that enable the organisation to achieve strategic objectives, to be more agile, to respond on demand and to control costs.

Today the expectation is that IT will not be a cost centre but will be the engine of transformation, driving transition to more innovative approaches to vehicle development and competitiveness.

With over ten years' experience working closely with our motorsport customers, we have a comprehensive understanding of the issues driving change within the industry.

That understanding enables us to advise customers on the most appropriate products for meeting the unique demands of the motorsport environment and utilising budgets, based on experience and feedback from customers across the industry including formula racing, touring car and rally. Our strategy is differentiated by a focus on practical innovation, efficient and affordable solutions and our superior customer relationship model.

To make it easier for our customers to take advantage of this end-to-end capability, we have simplified our solutions to align with four key customer imperatives:

Transform

Helping organisations to move from old, underperforming or outdated platforms to new ones. Dell transformation services, underpinned by strategic acquisitions like Make and Clerity, help make the transition process simpler, faster and less disruptive.

Connect

Enabling a more mobile and productive workforce, whether on-event or in the factory, with anytime, anywhere, any-device access and the IT infrastructure to manage the process efficiently. Dell delivers a broad range of the most manageable devices, centrally controlled by tools like KACE and WYSE.

Inform

Helping motorsport organisations turn their test and race data into insights, creating value from the information rather than just storing it. Dell breaks through the data integration barriers with tools like Boomi, which integrates on-premises and off-premises data, and by automatically and intelligently optimising data everywhere by virtualizing both servers and storage.

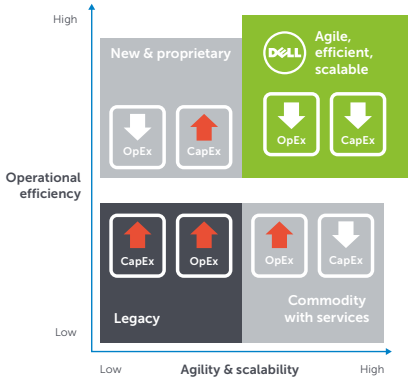
Protect

Enabling motorsport businesses to overcome evolving security threats and ensure compliance by leveraging our security portfolio, including:

- SecureWorks security and risk consulting, threat intelligence and security research
- SonicWALL unified threat management
- SecureWorks managed security service - automating malware detection and analysis with real-time protection

Removing avoidable costs

Against a landscape in which costly legacy systems remain and where expensive propriety solutions and overtly services-dependent systems are still being sold, the Dell approach delivers significant cost savings. CapEx is driven down through commoditisation and standardisation of the infrastructure. At the same time, OpEx is lowered by driving ever-greater levels of automation and manageability across not only Dell solutions, but those of other vendors too.



Dell is actively working with motorsport businesses across the UK to transform their organisations – driving up efficiency, increasing agility and helping to reduce costs. This guide provides examples of how you can leverage Dell end-to-end capabilities to address the key strategic challenges present in motorsport today.

"We rely on the skills of distributed individuals, specialist groups and partners, that's why easy and secure collaboration is so vital to our success."

Roy McCullough
Director
BGN Events

Connecting the whole team

The challenge

Few industries have such diverse ecosystems as motorsports – from specialist component designers to the complexity of achieving collaboration with, and between development teams, partners and customers, all irrespective of where they are located. Finding software solutions that facilitate collaboration and data connectivity to meet this need is relatively simple. The challenge is for organisations to achieve this in an integrated fashion ensuring that they retain control and governance over who is accessing their network, applications and data.

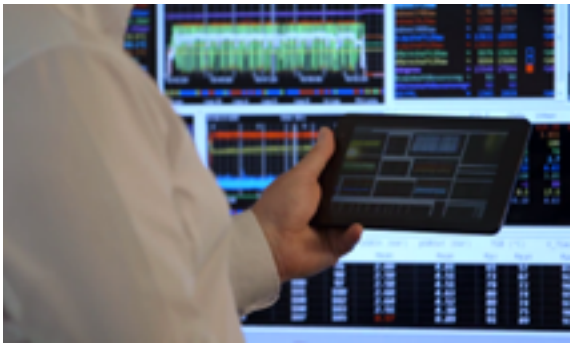
Importantly any solution needs to be agile enough to adapt to the dynamic conditions of motorsport be they driven by shifting locations, supply chain or personnel and not introduce any complexity that would attract the need for expensive IT staff.

The Dell solution

With over ten years experience of working in Formula 1™ and motorsport, Dell has developed a detailed insight into how best to support racing teams and the motorsport engineering organisations. The Dell connectivity and collaboration framework provides an open and modular approach, enabling motorsport businesses of all sizes to leverage their existing infrastructure and put in place a solution that is appropriate to their current needs.

Customers can take advantage of the Dell investment in acquiring market-leading technologies, defining technical architectures and repeatable consulting services which enable organisations to more quickly transform their infrastructure with the minimum of risk.

Leveraging key technologies including unified communications, collaboration, mobility, identity and access management, cloud and virtual desktop, the solution creates a connected workplace reflecting the needs of all stakeholders.



To help accelerate the speed at which you can create a highly mobile, agile workforce, empowered to connect and collaborate in real time, our approach focuses on engaging with cross-function departments like HR, Finance and Engineering early in the process.

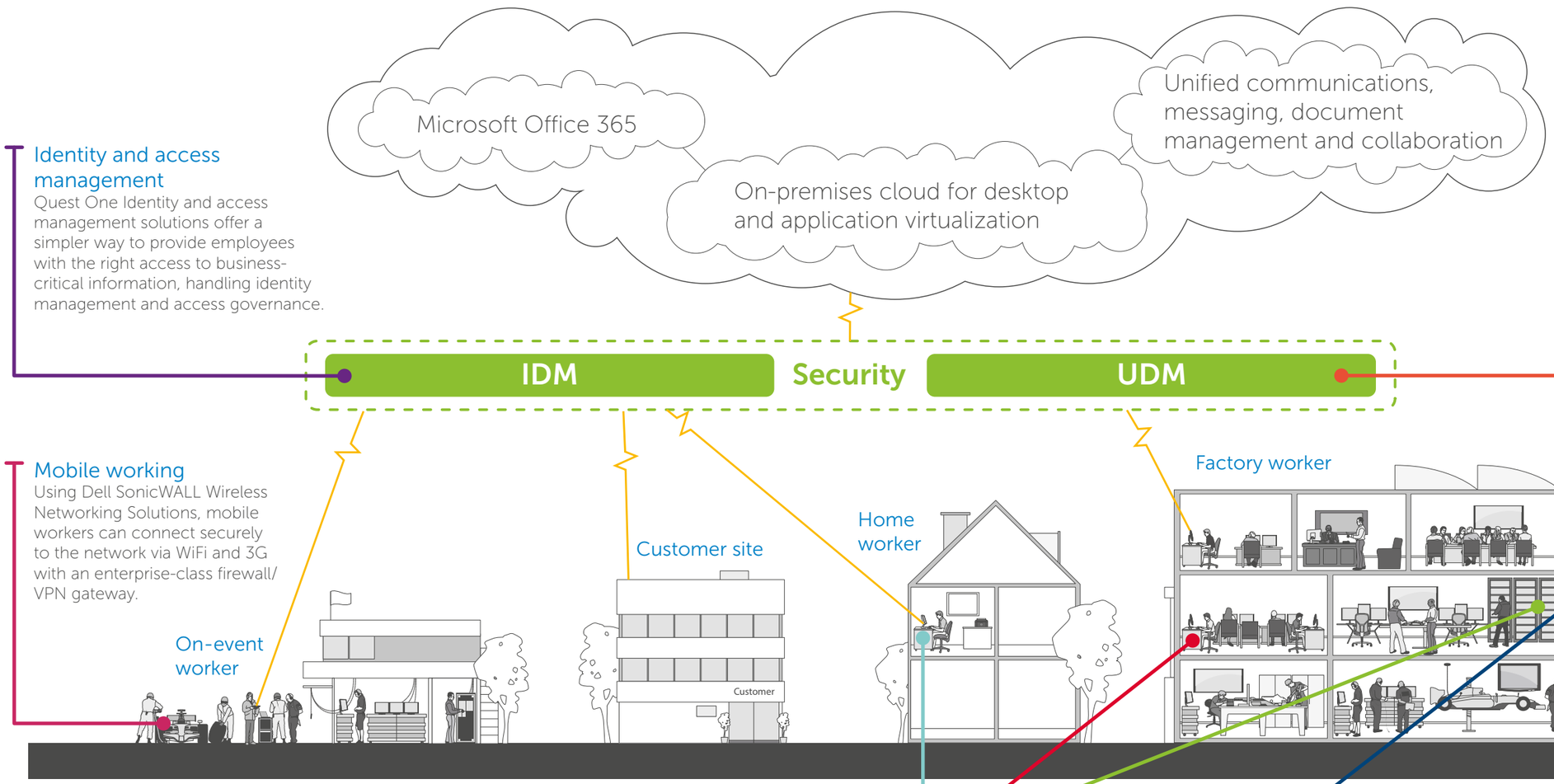
Key to delivering these solutions is that Dell open, standards-based architectures provide customers with the flexibility to leverage existing technologies where possible.

Proven deployment

Our consultants work with you to explore a holistic approach, help you better understand your current challenges and develop a realistic path to achieve your goals. In addition, by providing a single point of contact for the entire solution, covering consulting and systems integration around business process, application architecture, infrastructure architecture, operations and management we ensure that organisations realise tangible near-term benefits.

How Dell connects the whole team

The diagram below provides an overview of the components that combine to deliver an end-to-end solution.



Identity and access management

Quest One Identity and access management solutions offer a simpler way to provide employees with the right access to business-critical information, handling identity management and access governance.

User and device management

With Dell Cloud Client Manager, organisations have the flexibility to provide a fully managed service including:

- Manage and secure devices
- Configure and deploy apps
- Deliver proactive reporting and support

Or they can choose the option of adopting BYOD, ensuring:

- Compliance
- Deliver/revoke services
- Separated corporate and personal processes

Mobile working

Using Dell SonicWALL Wireless Networking Solutions, mobile workers can connect securely to the network via WiFi and 3G with an enterprise-class firewall/ VPN gateway.

Remote working

With Dell secure remote access solutions, employees and partners can get SSL VPN access with two-factor authentication to mission-critical resources from virtually any endpoint — including desktops, laptops, smartphones and tablets.

Optiplex

Dell Wyse

Dell Wyse thin clients offer a low cost, PSN-compliant alternative for desk-bound workers, enabling organisations to substantially reduce the costs associated with equipment deployment and maintenance.

Security

Dell solutions for endpoint security streamline management while blocking annoying spam and malware, finding potential endpoint vulnerabilities and encrypting the enterprise data residing on endpoints.

Workstation centralisation/virtualisation

Increasing workforce and IT efficiency centralised workstations make data available to multiple users at the same time. They also enable businesses to scale resources up or down depending on work volumes and deadlines and allow users to work on their own devices (BYOD), on-site or remotely in a data centre, without putting sensitive or business-critical information at risk.

Dell Precision R7610

Solution benefits by department

The Dell solution has been proven to deliver benefits that positively impact multiple stakeholders.

Team Manager

The solution improves speed of decision-making by:

- Enabling the presentation of relevant data in a single pane of glass based on each individual's role
- Increasing responsiveness through online presence and improved collaboration
- Improving the speed at which partners can be securely provisioned and de-provisioned

Head of Engineering

Developed to enable organisations to accelerate design, prototyping, testing and manufacturing, the benefits include:

- Leveraging the best engineering talent by collaborating securely, irrespective of their location
- Securing valuable engineering data with greater control and governance
- Capture and analysis of data in real time

Head of Finance

The holistic approach from Dell results in a number of on-going cost savings driven by:

- Using application sharing and Voice over IP to reduce communication and travel costs
- Reducing on-event costs by enabling specialist team members like the Engine Engineer to remotely access and support the team on location
- Potential reduction in software licence costs by sharing resources

Taking a closer look

In order for you to learn more about Dell collaborating and connectivity solutions for motorsport we have several ways for you to take a closer look.

Free discovery workshop

Spend a half-day with a Dell motorsport solutions architect and participate in an interactive session discussing your needs. Dell experts will share critical success factors, learning from other motorsport deployments and indicative timelines and expectations.

Please ask your Dell Account Manager for more details.

Meet us at the next MIA meeting

Our Dell motorsport specialists often attend MIA meetings, so if you would like to meet up and discuss connectivity solutions with one of the team, speak to your Dell Account Manager who can arrange this for you.

"Cloud clearly offers huge potential – the challenge is to secure meaningful and relevant benefits for the motorsport industry."

Chris Aylett
CEO
Motorsport Industry Association

Motorsport cloud computing

The challenge

The cloud has become the term used across the world to denote an agile, data-rich infrastructure, with many speaking of a low cost technology, available on demand. However, the technology doesn't come pre-configured to the unique characteristics and requirements of the motorsport industry and can prove unwieldy and disruptive if it's not designed correctly. This problem is compounded because many motorsport organisations lack the necessary in-house IT skills to leverage cloud computing effectively and integrate it within their existing infrastructure.

In the context of motorsport, it often seems hard to see the practical benefits of using the cloud. Furthermore, organisations also need to consider issues including:

- Protection of intellectual property
- Choice of public or private cloud - or a combination of both
- Data security and back-up
- Control of network security and data movement
- Ability to optimise industry applications like STAR-CCM+®, Ansys® Fluent and Microsoft Office 365

In trying to resolve these challenges, motorsport organisations are also faced with the dilemma of choosing between private, public or hybrid cloud. Each of these models is often represented by providers with vested interests and little or no motorsport expertise.

When considering the benefits of cloud in motorsport, we help customers to evaluate the following:

- Is there a cost saving or efficiency gain that your organisation can take advantage of?
- Is there a potential improvement in outcomes, for example in areas such as design, analysis and collaboration?
- Is there an opportunity for innovation?

Working with Dell

Dell has been part of the cloud computing evolution from the beginning. Today many of the public and private clouds run on Dell hardware. Our infrastructure delivers digital maps to mobile users, cloud email to lawyers, and more than six billion diagnostic images securely to hospitals and physicians. Backed by a decade of experience building cloud environments, Dell is ideally placed to help evaluate the applicability of cloud technology to your organisation.

Dell's Cloud brokering services help you identify the best model or blend of models to suit you, including public-to-public, private-to-private and private-to-public. In addition we help you manage:

- Unifying governance
- Provisioning
- Application integration
- Cloud security
- Cloud backup and data storage services
- Identity software for cloud authentication
- Multi-cloud management and performance monitoring

The collective experience and knowledge within Dell is yours to access. In most cases we begin by simply discussing the operational issues that you are facing and from this we recommend technology solutions that address these issues. Sometimes these solutions take the form of cloud services or include cloud technologies. While our approach is not predicated on a cloud outcome, if cloud technologies or services are identified to be suitable, then Dell can provide the support, reference architectures and deployment framework necessary to help make you successful.

How motorsport cloud computing works

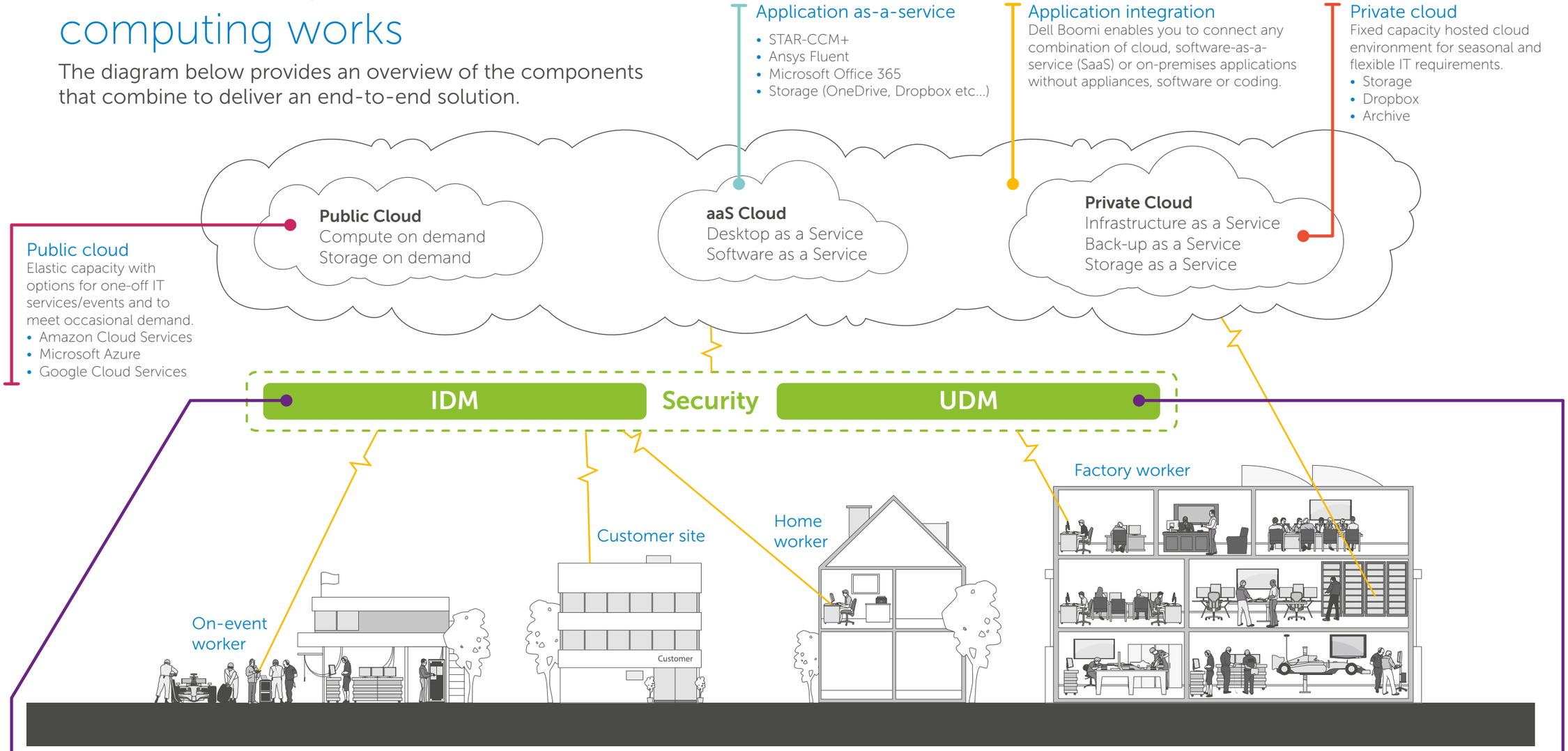
The diagram below provides an overview of the components that combine to deliver an end-to-end solution.

Application as-a-service
- STAR-CCM+
- Ansys Fluent
- Microsoft Office 365
- Storage (OneDrive, Dropbox etc...)

Application integration
Dell Boomi enables you to connect any combination of cloud, software-as-a-service (SaaS) or on-premises applications without appliances, software or coding.

Private cloud
Fixed capacity hosted cloud environment for seasonal and flexible IT requirements.
- Storage
- Dropbox
- Archive

Public cloud
Elastic capacity with options for one-off IT services/events and to meet occasional demand.
- Amazon Cloud Services
- Microsoft Azure
- Google Cloud Services



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- Configure and deploy apps
- Deliver proactive reporting and support

Or they can choose the option of adopting BYOD, ensuring:
- Compliance
- Deliver/revoke services
- Separated corporate and personal processes

Solution benefits by department

The Dell motorpsort cloud computing solutions have been proven to deliver benefits that impact track-side and production workers as well as their colleagues in team management, design and finance.

Team Manager

With a distributed and mobile workforce, motorsport organisations can use cloud-based applications such as Microsoft Office 365 to quickly and easily offer collaboration services between factory and event.

- 24/7 connectivity with added cloud storage
- Automatic updates and Maintenance
- Reduction in costs

Head of Finance

Dell makes it easy to build and manage the cloud so that it keeps pace as your racing strategies or processes change. You can quickly get access to the infrastructure that the business demands and implement it without worrying about exit strategies and vendor lock-in risks. Dell cloud computing solutions also enable you to:

- Lower upfront costs with a predictable monthly subscription and scale your infrastructure based on fluctuating business demands without the cost of IT management
- Improving security and compliance with cloud by ensuring that sensitive data can be regularly backed up, replicated and purged from local devices

Head of Design

Dell cloud solutions eliminate risks from proprietary architectures and enable you to innovate in-house based on your specific needs. Dell delivers the support, reference architectures and the deployment framework to help cloud to deliver:

- Access to specialist motorsport applications and information that are needed to be productive
- Rapid prototyping by leveraging 'burst' cloud capacity when required

Taking a closer look

In order for you to learn more about Dell cloud computing solutions for motorsport we have several ways for you to take a closer look.

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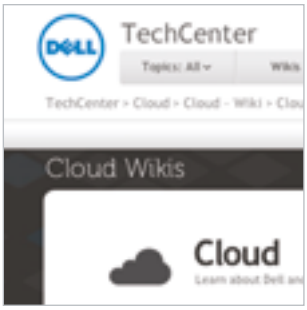


Cloud assets in TechCenter

Dell is an industry leader in cloud computing, delivering a variety of products and services for enterprise customers. The Cloud Wiki presents a variety of information on these products and services as well as event overviews and partners.

Learn more here.

Meet us at the next MIA meeting

Our Dell motorsport specialists often attend MIA meetings, so if you would like to meet up and discuss cloud solutions with one of the team, speak to your Dell Account Manager who can arrange this for you.

"We need an identity-driven security framework that can be fine-tuned to enable the collaboration between our suppliers and engineers."

Greg Murphy
CEO
Murphy Prototypes

Intellectual property protection

The challenge

The speed of collaboration and need to access relevant data fast, irrespective of location, has a direct bearing on competitiveness. With performance data and analytics being so critical, organisations need to balance the need for data access and collaboration while avoiding the risk of data leakage and security breaches.

Consequently, management teams must apply consistent, organisation-wide security policies and procedures and ensure that they know:

- Where data is being held
- Who is accessing the data
- What device is being used
- Where the data is being accessed from
- In what context the data is being accessed

With the biggest threat frequently coming from within the organisation, and with motorsport organisations focussed so heavily on vehicle performance improvements, they can neglect the necessary layers of security, perceiving them as expensive, complex and business-slowing.

The Dell solution

Dell Connected Security solutions eliminate siloed security information and connect security across data, infrastructure and applications with end-user, network, endpoint and security services solutions.

At Dell we embed security into every device, safeguarding data wherever it resides. With 102 million identities managed worldwide and over 30 billion security events analysed daily, our solutions detect threats and enable you to respond before they have a negative effect.

We believe endpoint security and compliance shouldn't be difficult or disruptive. That's why all our solutions are based on open standards and are capable of integrating with third party solutions. Importantly, we enable organisations to take a modular approach, building-out until they achieve end-to-end security that can be managed in a holistic and connected way.

Dell solutions

Identity & access management

Access governance - automate provisioning, enforce access controls and improve visibility of who has access to critical information.
Privileged account management - manage privileged accounts centrally and provide granular control of administrator access.
Identity administration - simplify the environment and user experience with a self service approach to information access.
User activity monitoring - audit what users do with the access granted and adapt accordingly.

Network security

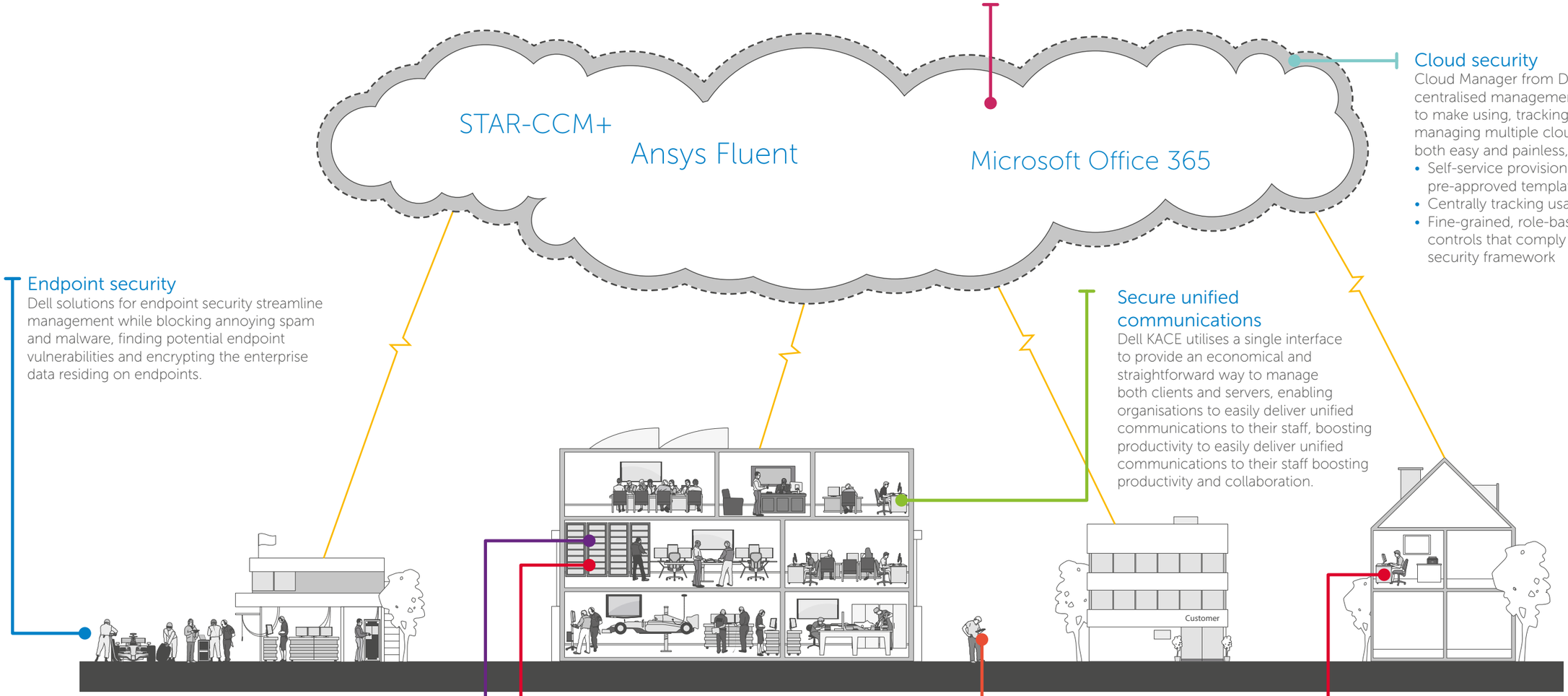
Secure remote access – provide your staff, partners and suppliers with ssl virtual private network (vpn) access to authorised resources from virtually any device, anywhere.
Next-generation firewalls – implement comprehensive layered defence that delivers intrusion prevention, ssl decryption and inspection and application intelligence with real-time traffic visualisation and inspection.

Endpoint security

Email security – protect your organisation from viruses, zombies, spam, phishing and other attacks with a choice of scalable and flexible cloud-based and on-site solutions.
Endpoint management and compliance – identify and remediate endpoint vulnerabilities from a single console, enforcing compliance with security policies across servers, pcs and devices.
Endpoint encryption and data protection – provide a single set of management tools to employ endpoint encryption wherever your data resides — without affecting end-user performance.

How Dell connected security solutions work

The diagram below provides an overview of the open, end-to-end capability that enables a joined-up security solution.



Secure SaaS

Dell Boomi enables you to connect any combination of cloud, software-as-a-service (SaaS) or on-premises applications without appliances, software or coding.

Cloud security

Cloud Manager from Dell offers a centralised management console to make using, tracking, and managing multiple cloud services both easy and painless, delivering:

- Self-service provisioning using pre-approved templates
- Centrally tracking usage
- Fine-grained, role-based access controls that comply with your security framework

Endpoint security

Dell solutions for endpoint security streamline management while blocking annoying spam and malware, finding potential endpoint vulnerabilities and encrypting the enterprise data residing on endpoints.

Secure unified communications

Dell KACE utilises a single interface to provide an economical and straightforward way to manage both clients and servers, enabling organisations to easily deliver unified communications to their staff, boosting productivity to easily deliver unified communications to their staff boosting productivity and collaboration.

Identity and access management

Dell One Identity and access management solutions offer a simpler way to provide staff and partners with the right access to business critical information, handling identity management and access governance.

Network security

Dell SonicWALL Next-Generation Firewalls and Unified Threat Management firewalls deliver intrusion prevention, malware protection, application intelligence and control, real-time traffic visualisation and inspection for Secure Sockets Layer (SSL)–encrypted sessions at the gateway.

Managing BYOD

Organisations wishing to provide the option of BYOD can use Dell ClearPass and KACE 3000 to:

- Manage and secure devices
- Configure and deploy apps
- Enable proactive reporting and support
- Ensure compliance
- Deliver or revoke services
- Separate organisation from personal

Remote access security

Using Dell SonicWALL Wireless Networking Solutions, staff and partners can connect securely to the network via WiFi and 3G with an enterprise-class firewall/VPN gateway. Dell Quest delivers two-factor authentication to mission-critical resources from virtually any endpoint — including desktops, laptops, smartphones and tablets.

Solution benefits by department

Dell Connected Security solutions have been proven to deliver benefits that impact right across the organisation from staff, partners and managers.

Team Manager

By ensuring that security is joined-up and managed efficiently, the solution:

- Enables innovation and the pursuit of far-reaching programmes that drive-up staff performance and competitive advantage
- Assures that the organisation is able to adhere to all data access regulations
- Drives uniformity and ease of use for staff and partners
- Helps keep security costs lower and predictable

Head of IT

Dell Connected Security solutions automate and simplify time-consuming security tasks, including the ability to revoke all access rights to services and applications and wipe organisational data from any of the users' devices which:

- Speeds up the secure provisioning of new users or applications
- Delivers a flexible security framework to accommodate different settings including remote working, on-event and on-premises
- Gives IT staff confidence that they are providing a security framework that is fit for the business

End users

The non-intrusive nature of our solutions mean that end users:

- Are unaware of the background security and controls
- Experience easy, fast and seamless access to their applications and data
- Are seamlessly protected from inadvertently compromising security

Taking a closer look

In order for you to learn more about how Dell can help you with intellectual property protection, your Dell Account Manager can arrange one of the following:

Free discovery workshop

Spend a half-day with a Dell motorsport solutions architect and participate in an interactive session discussing your needs. Dell experts will share critical success factors, learning from other motorsport deployments and indicative timelines and expectations.

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Meet us at the next MIA meeting

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"Our data management is now completely joined-up and analysis cycles have been speeded up, giving us more time to make informed decisions."

Paul Cusdin
Head of Computational Fluid Dynamics
Caterham F1™ Team

Data analytics and management

The challenge

While most teams have no problem collecting data on the vehicle or on the performance of a new design, the challenge is to bring together all the other relevant ancillary data. This can include augmenting historical race and test data like ECU, engine, tyres, GPS and G-loading with external feeds such as weather and temperature into one data warehouse.

A further challenge is to be able to analyse all of this data in an operationally relevant timescale and share the results instantly in an intuitive fashion with all key stakeholders across design and engineering, independent of the device they are using or their location.

The Dell solution

Dell helps motorsport organisations create robust, high-quality data management solutions designed to support the unique needs of the industry. These solutions deliver the ability to efficiently, effectively and accurately analyse both test and race data, as well as provide a platform to optimise information management for enterprise-wide operations including engineering, design and management.

Dell helps customers to easily connect any combination of cloud and on-premises applications without software, appliances or coding. This enables real-time data integration from off-premises and on-premises sources to ensure you're always working with the most accurate information.

Dell data management systems include all of the technology, integration processes, change management strategies, professional learning and tools needed for success. The core data management components include:

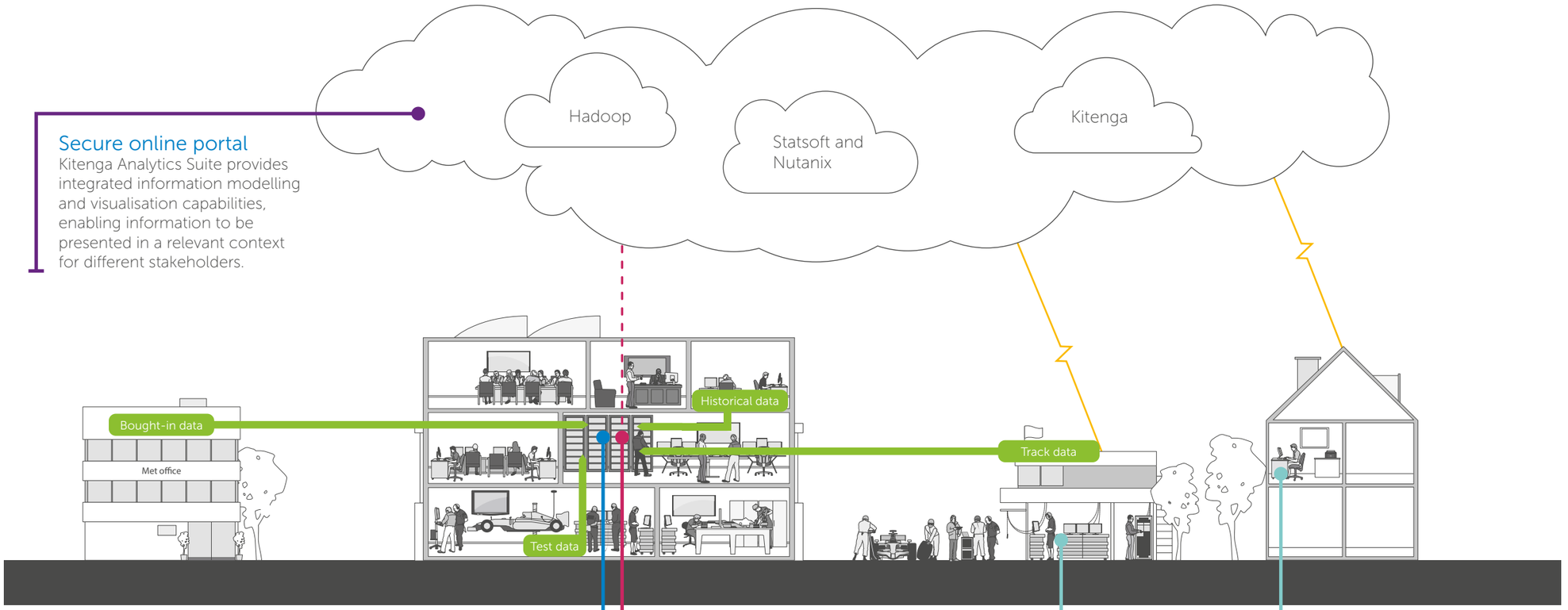
- Master data management
- Data warehousing
- Education
- Intelligence tools
- Secure online user portal

The Kitenga Analytics Suite from Dell provides you with integrated information modelling and visualisation capabilities in a big data search in addition to StatSoft as a business analytics platform.

By combining natural language processing, machine learning and sentiment analysis technologies with easy-to-use search and visualisation capabilities, our big data analytics solution lets you mine content, discover relationships and realise the full value of big data.

How the Dell data analytics and management solutions work

The diagram below provides an overview of the components that combine to deliver an end-to-end solution.



Secure online portal

Kitenga Analytics Suite provides integrated information modelling and visualisation capabilities, enabling information to be presented in a relevant context for different stakeholders.

Dell Boomi

Dell Boomi data connectivity enables the creation of a data warehouse irrespective of where the data resides.

Onsite analysis

Using predictive analytics systems teams are able to leverage all the captured data, including ECU, engine, tyres, GPS, G-loading, weather and temperature, to model and inform component selection, aerodynamics and tuning.

Data visualization

Staff, partners and on-event workers can access a visual representation of performance data analysis through the secure online portal.

Solution benefits by department

The Dell data analysis and management solution delivers proven benefits that can drive benefits across multiple stakeholders.

Team Manager

The insight gained from the Dell data analysis and management solution enables:

- Defined focus and maximised productivity of the engineering team
- Optimised performance of the cars
- Increased speed of development

Head of Engineering

With the challenges of making informed decisions in very tight time frames, the Dell solution helps engineering staff:

- Interpret the data fast in an intuitive form across all relevant engineering and partner personnel
- Make informed decisions relating to prototyping and design based on insight gleaned from aggregated data analysis
- Improved decision response times – particularly on race day when data can be rapidly interpreted and modelled to define necessary tuning

Taking a closer look

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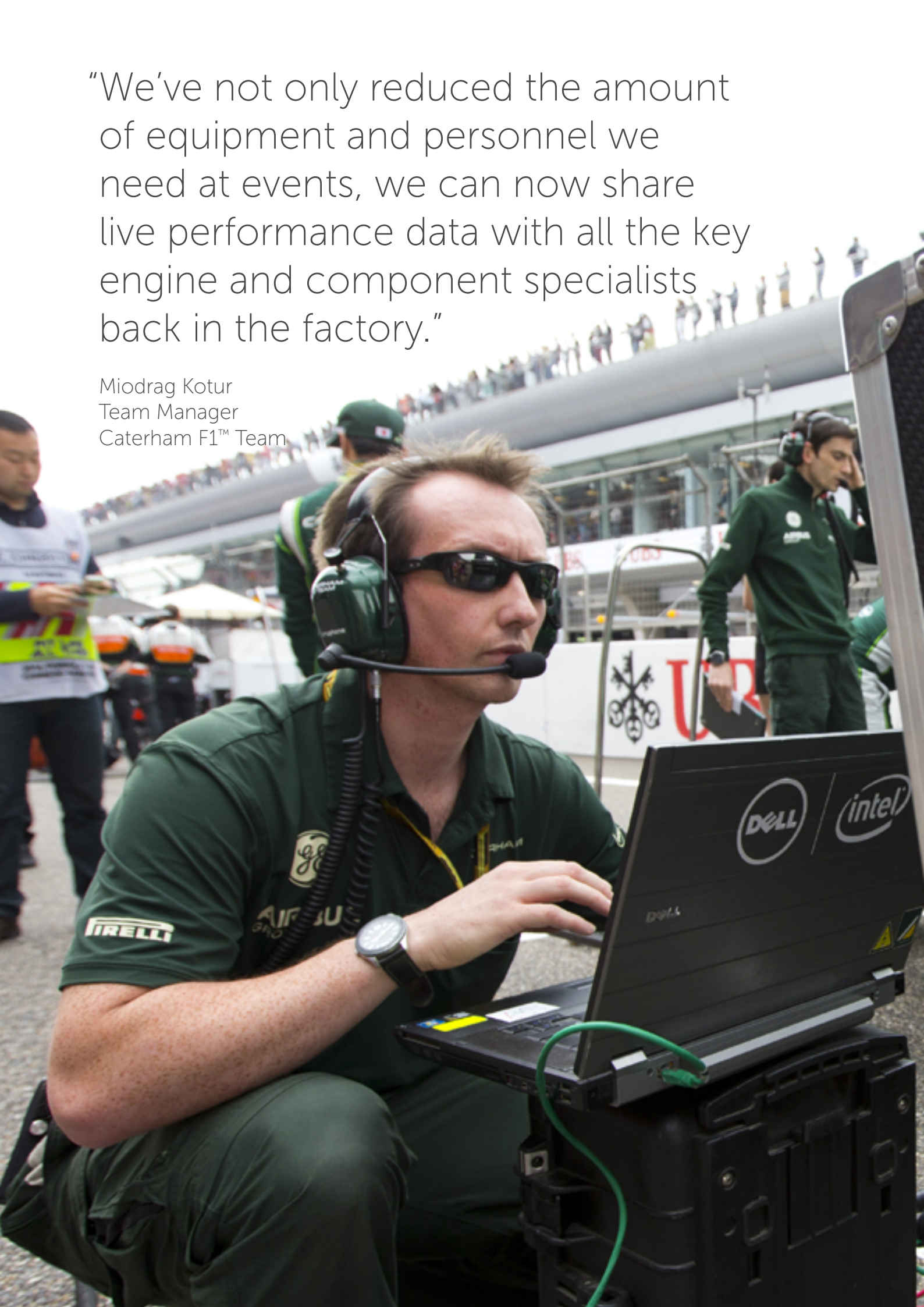
"We've not only reduced the amount of equipment and personnel we need at events, we can now share live performance data with all the key engine and component specialists back in the factory."

Miodrag Kotur
Team Manager
Caterham F1™ Team



On-event infrastructure and support

The challenge

In an ideal world, most teams would have their full factory resources on tap when on-event. In reality, they are forced to decide what to take and what to leave behind – a decision often driven by the cost of shipping IT equipment and providing the personnel to manage it, plus ensuring that the right specialist skillsets are available on-site to deliver fast analysis and decision-making.

A further challenge is the hostile environment. Unlike back at the factory where IT operates in a highly controlled environment, when on-event the equipment has to be able to contend with extremes of heat, cold, humidity, dust and vibration in addition to the physical stresses of transportation. These factors have a direct knock-on effect, requiring the team to ship sufficient IT spares and have the appropriate skills on-site to ensure that the infrastructure stays operational at all times.

The Dell solution

At Dell, with over ten years' experience supporting Formula 1™ racing, we have developed an on-event solution specifically to meet the needs of racing teams. The solution is designed to help organisations make the best use of their existing infrastructure on-event and minimise the amount of equipment that needs to be shipped and supported.

Central to the solution is the Dell mobile data centre, which is roughly the same size as a refrigerator and comes pre-packaged in a ruggedised flight case. It is provided pre-integrated with the relevant server's storage, networking and even radio capabilities, along with a built-in firewall and WAN accelerator. The mobile data centre makes it easy for teams on-event to connect to their existing cloud infrastructure and enables them to:

Increase performance

By sharing on-event data in real time with engineers back at the factory, teams are able to use the organisation's full IT resources to monitor and review performance and provide rapid advice on how to make improvements.

Automate data offload

Captured data is automatically offloaded and backed-up onto the corporate infrastructure without the need for on-event IT personnel to manage it.

Collaborate

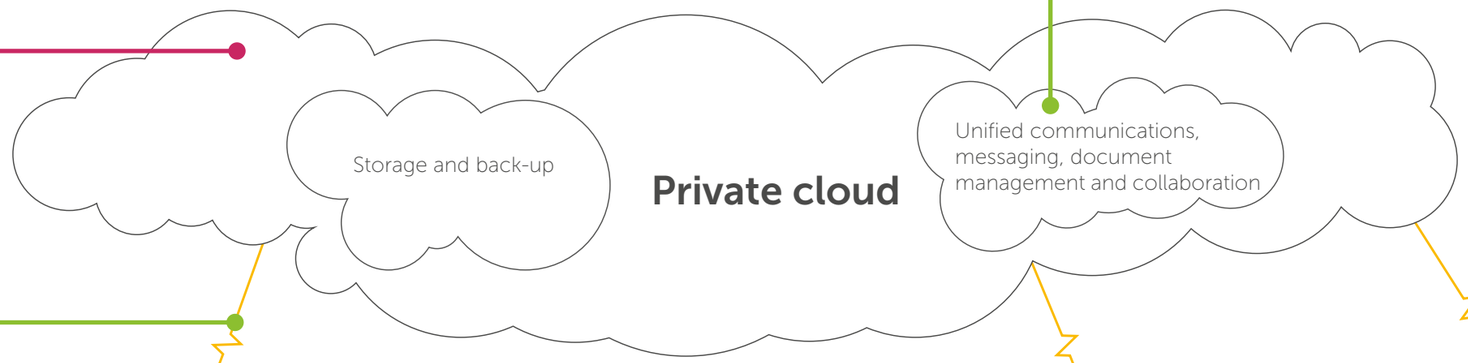
The Dell mobile data centre also provides secure IP telephony, enabling teams to communicate with colleagues, sponsors and fans in a more meaningful and dynamic way.

How the Dell on-event infrastructure and support solutions work

The diagram below provides an overview of the open, end-to-end capability that enables a joined-up security solution.

Unified communications
Including Microsoft Lync for IM, Voice and PABX integration and replacement.

Private cloud
Liberates the business, enabling it to be agile and accommodate on-event activities while retaining control by implementing access controls and the ability to provision and de-provision, right down to individual users.



Network security
Dell SonicWALL next-generation firewalls and unified threat management firewalls deliver intrusion prevention, malware protection, application intelligence and control, real-time traffic visualisation, and inspection for Secure Sockets Layer (SSL)–encrypted sessions at the gateway.

Remote access
Using Dell SonicWALL wireless networking solutions, engineers can connect securely to the network via WiFi and 3G with an enterprise-class firewall/VPN gateway. Dell Quest delivers two-factor authentication to mission-critical resources from virtually any endpoint — including desktops, laptops, smartphones and tablets.

Dell mobile data centre

On-event infrastructure
The ruggedised Dell mobile data centre comes pre-integrated with the necessary server's storage, networking and even radio along with a firewall and WAN accelerator built-in, it making it easy for teams on event to connect to their existing cloud infrastructure.

Rapid response support
Dell can monitor the IT infrastructure remotely, provide support for the fitting of spares and offer a two-hour response time for on-site support.

Leveraging infrastructure
High speed of exchange of data enables engineers back at the factory to leverage existing core infrastructure for data analysis.

Solution benefits by department

The Dell on-event solution delivers advantages that can drive benefits for multiple stakeholders.

Team Manager

By maximising usage of the organisation's existing IT infrastructure investment, the solution:

- Allows the organisation to use the same infrastructure to service multiple teams on-event – for example F1™, touring car and GP2
- Enables the team to achieve better performance and a richer sponsor experience, helping to drive investment

Marketing Manager

By leveraging the Dell on-event data centre communications capabilities, the solution can:

- Deliver a richer and deeper experience for sponsors – including streaming video footage and performance data
- Reach existing and new fans online with media-rich content

Event/Race Manager

The improved efficiency and collaboration capabilities of the Dell on-event data centre enables the solution to:

- Reduce on-event costs by minimising IT equipment and personnel travel costs
- Improve race performance by using factory-based engineers to analyse live race data

Taking a closer look

In order for you to learn more about how Dell can help you with on-event infrastructure and support, your Dell Account Manager can arrange one of the following:

Free discovery workshop

Spend a half-day with a Dell motorsport solutions architect and participate in an interactive session discussing your needs. Dell experts will share critical success factors, learning from other motorsport deployments and indicative timelines and expectations.

Please ask your Dell Account Manager for more details.

Meet us at the next MIA meeting

Our Dell motorsport specialists regularly attend MIA meetings, so if you would like to meet up and discuss our on-event infrastructure and support solutions with one of the team, speak to your Dell Account Manager.

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