Empowering your operations with data
NEIL EKE

Getting the balance right
MARK SLAVEN

No information without data
BILL McGLOIN

The business value of data analytics
ALEEM CUMMINS

Noise or Insight
COLIN WILLIAMS
To our Insight Guide on information, big data and analytics in the workplace

WELCOME

Increasing demand for enhanced experiences, data-driven processes and new, improved ways of working brings about the need to modernise and transform core IT systems and infrastructure. Data – and the information derived from it – sits at the heart of this. Enabling users through the efficient and secure provision of data on demand means connecting them to meaningful and live information held in core systems.

We have brought together four Computacenter experts in data and data analytics, along with an independent legal professional, to talk about the impact of this on the CIO, the business strategy, and the end users. In a discussion about the challenges and the opportunities, they offer highly relevant and, at times, provocative insight into the way ahead for information, big data and analytics.
Enterprise organisations must fundamentally rethink how they capture, harvest, store and manage data. It’s not easy. As the following pages demonstrate, there is much to consider, from how to make data available to a range of users in appropriate, immediate and secure ways, to the pace at which new enabling technologies are adopted. As organisations strive to drive more business innovation through the exploitation of this vast volume of data, how do they do so in compliance with evolving data protection legislation?

This data journey is underway, but many organisations are constrained by legacy infrastructures not yet able to provide access to the volume of data exploding across systems and networks. They are held back by concerns about new and emerging data analytics capabilities and wondering whether they should seize first mover advantage, or wait for the next ‘big thing’.

And they are hampered by a lack of clearly defined business cases designed to sell the investment in enabling technologies to the board.

Once you’ve implemented an analytics solution to extract valuable customer information and identify trends, behaviours and selling opportunities, what next? Can you use IT operational analytics to empower your IT operations teams with visibility and insight into application systems and their performance? This all demands a shift in thinking beyond purely the technology. It requires the CIO to articulate the business value that will be created through more informed insight into what is having an impact on operations and systems.

The prize is big. Data traffic globally is experiencing a spectacular rise, with one estimate suggesting mobile data traffic alone will triple to exceed 173 million TB by 2018 (Gartner). Putting in place the right infrastructure to ensure you seize this prize by transforming data into insight is thus a business imperative. Whilst the impact and effect of information, data and analytics are experienced at the IT edge, through devices, applications and interfaces, this can only work when it is connected to capability at the IT core.

I hope you find the following both informative and useful.

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Data is everywhere and everything. It’s what we do with the data, how we turn it into information guiding effective decision making, that determines success.

Neil Eke
Solutions Sales Director, Computacenter
Mark Slaven, Chief Information Officer of Group at Computacenter explains: “An organisation’s data analysts and architects want unrestricted access to all the real-time data generated across the enterprise. They’ll use it to identify trends and make predictions, which offers a sound business case for giving them this access. On the other hand, the teams running the production systems processing day-to-day operations are adamant that no such access should be given – at least not to the extent demanded. They know the systems and infrastructure weren’t designed with significant real-time data volumes in mind. This makes an equally sound case for restricting access to all data.”

This is the quandary many of our customers are facing as they evolve their big data, information and analytics strategies. They’ve been using data for their reporting and analytics for several years. Some are still operating traditional historic reporting processes, which are robust and well established.

Others are using operational data to ascertain how their operations are performing in real-time. For example, how is the service desk performing in terms of SLAs, agents, call waiting times, etc? This typically demands access to real-time production systems.

Elsewhere, we’re seeing organisations demanding more from their data, with analytics solutions designed to make sense of the mass of data captured across the enterprise. Structuring this information into something of business value can take huge amounts of compute power and intellectual capabilities.

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Finally, there are those organisations taking their data analytics to the next level with a real-time capability enabling them to identify areas of business where something is having an impact as it happens. But how can the CIO give real-time access to data embedded in systems without risk to those systems? Some CIOs are looking for smart solutions. For example, they’re asking whether they can strip out the transactional data in as close to real-time as possible and drop it into a parallel system for the data analysts to access.

Looking ahead, Mark says this real-time access will be built into the design of systems but for the moment CIOs typically have to operate with core systems that they’ve had in place for some time, so they have to work around the problem. Modern systems and database technologies are increasingly better equipped to manage real-time data analysis requirements and CIOs need to assess whether an upgrade or replacement might satisfy both the analysts and the production system teams.

He continues: “The CIO also needs to recognise that it may not be possible to satisfy everyone’s demands on day one. Instead, consider a piecemeal approach, asking what will give the biggest return or what might be the easiest change to bring about first. This is something that can’t be ignored because without access to the data held in multiple systems innovation is limited and competitive advantage withers.”

Mark Slaven says that in many cases the decision is being driven by the promise of what the new technology can deliver, but this poses a challenge in itself. “The development of new analytics capabilities has pushed ahead really quickly and is now outpacing the infrastructure changes needed to run them,” he explains.

“When there is immense capability in these analytics tools, there is a risk that all the buzz about ‘big data’ means they’re adopted before the organisation can really derive business value from them. This value will remain constrained without access to the underlying data sources.”

Mark believes that providing this access is, in part, about having the right mind set. “It is important to understand up front what you are trying to do with your reporting, data and analytics,” he says. “Then, once you have identified the gaps in your ability to do this, you can look at what tools will best help you achieve it and what processes you need to put in place to manage appropriate access to your data.”

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**DON’T RUN BEFORE YOU CAN WALK**

**When is the right time to roll out new analytics tools?**

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“Big data is dead! Long live information,” says Bill McGloin, Chief Technologist of Information at Computacenter. “Of course, we all know that big data is far from dead and is proliferating day in, day out. So what do I mean by my opening gambit?”

Bill continues: “We’ve been hearing about big data for a number of years, but it’s now time to move beyond the hype and take the conversation in a new direction. Instead of talking about big data, I believe we should be talking about the outcome of gathering all this data. What is it all for? The answer is simple. We need the data to provide us with information that can add value to our operations, whether to tell us more about our customers, inform our strategic direction, or provide market insight for competitive advantage. Without the data, we have no information.”

Bill says that while this may be self-evident, the reality is that much of the market hasn’t got to this stage yet. He continues: “People are starting to understand the value that information can bring, but very few organisations are doing it particularly successfully or on a large scale.”

So how do you transform the data gathered from multiple channels and across the enterprise into valuable information? Bill says that there are four steps on the journey. “You must first understand your data sources. Then you have to ingest the data in a usable fashion, after which you need to identify the optimum platform from where to manage the data. Finally, visualising the data turns it into valuable business information.” (See page 7 for insight into each of these steps.)

There are a number of vendors now offering technology solutions for taking the digital enterprise on this journey. “They’re not just classic vendors,” says Bill. “There are a lot of start-ups using Open Source technologies and this is driving a new market dynamic. In my position I get to act as a gatekeeper for these new technologies, reviewing them and assessing their viability. Some newer solutions can bring almost immediate benefit to customers, whilst others can accelerate the journey.

“Of course, many of them aren’t right for our customers, but it’s still fascinating to see some of the compelling offerings out there. I look at their roadmaps, asking how they tie in with what our customers want to achieve. There’s no point in investing in a cool piece of tech if nobody wants to use it.” Bill points out that there is often a reluctance to use technology from these small start-ups, but feels this is missing a trick. “They release quickly and because development is community based any problems are rapidly fixed,” he explains. “At Computacenter we assess any risk to evaluate whether a product is worth it. We ask what competitive advantage the technology might give and whether there is any threat to the data itself.”

A lot of this new technology analysis takes place at Computacenter’s Solutions Centers. As an example, we know ingesting multiple data sources can be a problem for some of our customers, so this is something we’re focussing on as we help to remove the risk on their journeys from data gathering to information-driven operations.
STaP 1 – uNDErSTAnD yOur DATA SourCES
Not all data is good data. All enterprises have what we now call ROT data: Redundant, Obsolete or Trivial, and consequently it is of no value. The key is to identify the sources that are valuable to your enterprise – and those that have no value. It can be user generated data, such as social media, or newer data sources, such as that captured by the expanding use of sensors. Or it might be existing, classic sources that you want to mine, such as CRM systems. Bill says: “A lot of companies struggle with this stage of their information journey, which is where Computacenter’s experience is key: we bring the ability to identify important data sources versus ROT, which is crucial on the journey to Information value.”

STaP 2 – iNGEST tHE DATA iN A uSABlE fASHION
In what format is your data? For example, is it derived from tweets, blogs, or social networking sites? A number of Computacenter’s customers are already analysing data from different sources, but they’re only viewing them as standalone entities. While this is of some value, it is limited unless each format is translated into a single stream of information. Only then does it become possible to identify the underlying trends and use this information to make informed business decisions. The ability to take multiple data sources and correlate these sources to achieve a single, common format is the next stage of the journey.

STaP 3 – iDEnTIfy tHE plATform oN WhiCH yOur DATA CAn BE opTiMiSeD
Identifying the right platform for your data to sit on is something that Bill says he’s often asked to advise on as organisations struggle to define their underlying infrastructure. He continues: “The optimum platform for your needs will depend on the use cases for your data. Perhaps a data lake or Object Store will suit some purposes, or a standard data warehouse may meet other needs. Depending on the use case, there are some analytical appliances on the market for quick ingestion and porting of data, fusing a traditional data warehouse and in-database analytics into a high performance purpose built analytics platform. No single platform is right for every enterprise’s needs, but again the experience of Computacenter’s consultants helps to guide customers to the correct environment for their desired outcomes.

STaP 4 – STaRt tHE journEY fROM DATA tO VALuED informATiOn
At this stage we can start to drive real value from the raw data stored, transforming it into valuable business information. IT Operations Analytics (ITOA) drives insight from the analysis of Machine Generated log files, whilst a Data Visualisation layer provides previously unseen correlations between multiple data sources in an easy to understand visual format.

The Log Analysis allows us to be Descriptive, Predictive and Prescriptive, meaning we can understand what has happened and why, predict when it may happen again, and what actions to take if and when it does. Used internally at Computacenter, this minimises, and can almost eradicate, downtime. It provides rapid resolution to the discovery and rectification of issues and events, making for a more efficient estate.

Bill adds: “Mark has previously pointed out the challenges around the access to data and, whilst understanding the challenges brought in administration, I believe that the more ‘open’ data can be the more value can be discerned from it. This is why many customers now create separate environments for data analysis. Open data allows differing approaches to delivering information value, and can ultimately lead to quicker value. Being able to see data previously thought to be unrelated come together to provide patterns has almost limitless possibilities for all kinds of operations.”

Many organisations are struggling to move from capturing data to transforming it into business-enabling insight. Bill McGlone says there are four steps that need to be taken to achieve this.
EVANGELISING

THE BUSINESS VALUE OF DATA ANALYTICS

"Market-leading data analytics solutions are all about the here and now – providing real-time actionable insight, into the masses of operational data," says Aleem Cummins, Chief Technology Officer of Group Data Analytics at Computacenter.

"Traditionally, Business Intelligence (BI) tools gave us structured historical insight. This was and still is very valuable, especially with reporting. However we now want or even rely on having the raw data as it is generated regardless of format and structure." Aleem explains that there is a sound reason for this: “In our digital world, the end user experience is everything, whether we’re talking about customers or internal users. So, the more we know about the technology infrastructure, security systems and business applications underpinning and protecting that experience, the better able we are to predict and prevent anything that might have a detrimental impact on it. Sometimes, it can be a huge differentiator to make real-time decisions based on real-time insight.

“In the same way, the more we use data to understand customer interactions, the more effective we will be in terms of our engagement around customers’ actual needs and wants, not what we ‘think’ we should push to them.”

With all of this in mind, why aren’t we seeing more uptake of data analytics solutions? They’re clearly the way forward and the results, according to Aleem, can be mind-blowing. He says: “I believe the key lies in how you ‘sell’ a coherent, joined up and yet simple data analytics story to your leadership team. It’s about organisational and cultural adoption. At times, it may even need some transformation. If your leadership isn’t on board, then the rest of the organisation will happily carry on operating data cartels and failing to share vital and valuable insight across the enterprise.”

He adds that funding can be a reason for the reluctance of boards to adopt data analytics. “I often hear questions such as whose budget will it come from? How do we cross charge for its use? But it shouldn’t be viewed like this. Data analytics is about democratising and sharing data, exposing actionable intelligence and empowering users for the common good, not just for individual business streams.”

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Aleem Cummins
Chief Technology Officer,
Group Data Analytics,
Computacenter
The way forward is to demonstrate what that common good is: what business value will a data analytics solution bring to the wider organisation?

Aleem Cummins
Chief Technology Officer,
Group Data Analytics,
Computacenter

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Aleem continues, "So, the way forward is to demonstrate what that common good is: what business value will a data analytics solution bring to the wider organisation? I have seen at first-hand what a huge difference it can make once the true value of data analytics is fully understood and unlocked. It can turn reluctance into evangelisation and frustration into roadmap. It disrupts traditional perspectives on data and its use cases. It also helps to ensure that the data exposed and correlated is put in the hands of the people who can exploit it best to the benefit of the organisation and indeed its customers and end users". This drives data up the stack to information, knowledge and ultimately wisdom.

Aleem explains, "In my experience, I find it useful to position Big Data as focusing on the platforms, storage, and infrastructure necessary to ensure that data is available where it needs to be and how quickly. Following on from this, I then position Data Analytics as the wealth of business value that can be extracted and devised from that data. It is genuinely easy to muddle these together, but a clear understanding helps to drive well-formed outcomes. Using strict terms is optional, understanding what is needed to underpin, sustain and grow business value is mandatory.

That value might be the ability to use your data-driven information to provide a world-class customer experience or achieve heightened levels of productivity. In the private sector this equates to increased competitiveness and revenue, and in the public sector it helps to drive the efficiency agenda to do more with less.

It needs to be said that real-time data analytics can be a very empowering supplement to BI. There is absolutely a place for both to coexist. I favour the term “right-time” over “real-time”. The “time” should be driven by prevailing business needs, opportunities and practical realities.

WHAT’S YOUR USE CASE?

Investing in a data analytics solution begins with the use cases. What problems do you want to solve? What do you want to achieve? What business value do you want to derive from your data? Aleem provides us with the following use cases as examples:

- Service desk: here the value might be in measuring call detail records to understand call volumes or waiting times and to foresee likely trouble spots, such as peaks in demand or a major incident that diverts call handlers away from day-to-day service delivery. Being able to correlate this call data with feeds from shift data, training data and supporting applications boosts decisive insightful decision making. For example, the ability to spot the ‘signature’ of a potential threat to service in real-time, then using this insight to create the action of allocating the right level of resource to mitigate demand spikes. Put simply, ensuring that the right people with the right skills are in the right place and at the right time.

- Platform availability: real-time data analytics can offer a crucial differentiator for your online presence. Consider how a surge in online activity – think the Black Friday retail bonanza – has the potential to overload your network with thousands of shoppers desperate to snap up a bargain and all at the same time. Real-time data analytics can identify problems arising before they have an impact on your business. It can guide decisions about what you tell customers – and when – perhaps with a holding page if required. It can give you the intelligence to manage peak trading for great customer engagement with your brand. Ultimately, customers expect and assume a pleasant shopping experience at all times. My belief is that customer experience is not something you do, rather it is the result of a number of deliberate activities that are part of a business as usual regime. Data analytics informs and guides this set of deliberate activities.
NOISE OR INSIGHT?

The data-driven world now our norm will become increasingly reliant on insight at every data evolution.

Collin Williams  
Chief Technologist, Networking, Security, and Digital Collaboration  
 Computacenter

As data proliferates it may now be impossible to ‘guarantee’ that an environment is secure. This stark reality comes from Colin Williams, Chief Technologist – Networking, Security and Digital Collaboration at Computacenter.

He continues: “Potentially, enterprises are securing data, information and users to known states (a point in time), which greatly reinforces the value of real-time analytics. But when is the security event information that radiates from the various tools and systems purely noise and not insight? It’s a fine balance between a mass of interesting alerts/state changes and relevant, useful actionable intelligence.”

Colin argues that the traditional security information and event management (SIEM) platforms of old suffered less from being poor technology and more from a lack of understanding on the part of vendors, solution designers and customers of the importance of action-oriented event management.

He says that the challenge faced by legacy security analytics platforms (many categorised as SIEM platforms) was highlighted by questions such as: How relevant is this event to my current state? Why must this event be prioritised over others? What commonality exists between this event and others of a similar nature? And what is the business impact in real terms of acting on this event, or not?

Colin continues: “Whilst perhaps simplistic, questions of this nature illustrate that while the legacy platforms might have excelled in data collection and correlation, they struggled to package outcomes as meaningful insight. Thankfully, modern data analytics platforms benefit greatly both from major advancements in data science and intelligence and from massively increased processing power available in hardware platforms. This enables the delivery of real-time, relevant and ‘actionable’ insight to both security operations and business users.

For the modern, digital enterprise, this insight has a vital role to play in data loss prevention (DLP) activities, as Colin explains. “Prevention is getting harder with new threats daily, mutants of old threats and human error in this lightning speed digital world. This is turning the spotlight on the importance of accelerated remediation. The CISO may be a point of accountability, but cannot fight the battle alone. User education as an ongoing, prioritised activity is now a mandatory element of effective security defence. Informed and educated users are human endpoints: their awareness and action when confronted by security anomalies is key to helping an enterprise remain secure.

“There are few security attacks that are not based on a human element for their success. This is where DLP can deliver tremendous value when it is aligned with a rigorous programme of user education. By analysing the movement of company digital data assets across a network, external transfer or via physical means and triggered by effective classification, DLP will help both users and the organisation to minimise data leakage.

“It’s getting harder to find the haystack, much less the needle. As we strive to secure information in this highly digital world, educated users, actionable insight with people and systems working and fighting together is the only chance we have to win the battle.”

Colin Williams  
Chief Technologist, Networking, Security and Digital Collaboration, Computacenter
We’re all capturing, storing and analysing more and more data. This demands vigilance in terms of how we safeguard personally identifiable data or information (PID or PII) – the data by which an individual can be identified. In line with the digital transformation agenda within the European Union (EU), the EU legislation around protecting this data is changing.

Anthony Lee, a Partner at legal firm DMH Stallard, explains: “Towards the end of last year, the text of a new European General Data Protection Regulation was agreed. This will replace the long-standing EU directive that has governed data protection relating to personal data since 1995 and will come into effect across Europe two years after it is passed into law. It will establish rules adapted to the digital era and aims both to enhance the level of personal data protection for individuals and to increase business opportunities in the Digital Single Market.”

What does this mean for the modern enterprise? Anthony continues: “There are a number of new obligations to be aware of. For example, the appropriate organisational and technical measures currently applying to the data controller (a person or organisation that “controls” the data) will also extend to the data processor, such as a cloud service provider. The controller will be expected to reserve a contractual right to inspect the processor’s facilities. Crucially, the new regime will extend the scope of the EU data protection law to all foreign companies processing the data of EU residents.”

Many organisations have already taken steps to ensure they comply with the new regulation when it comes into effect, while others have yet to prepare. Anthony has drawn up a check list of ten steps to help establish best practice and guide compliance. Anthony covers this subject in more detail in a white paper published in partnership with Skyhigh Networks.
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Anthony Lee
Partner,
DMH Stallard

TEN STEPS TO COMPLIANCE

• Step 1: Create a team of individuals responsible for compliance. This team should include people from IT, legal, compliance, HR and workers council/employee representatives. It should define the organisation’s policies and ensure that regular reviews are conducted.

• Step 2: Notify people whose data is collected about the purpose of the data collection and ensure that it is possible to share the personal data with third parties.

• Step 3: Ensure that privacy policies, procedures, and documentation are kept up to date – don’t forget that data authorities can request an audit at any time.

• Step 4: Create a breach and incident management process that alerts and notifies the appropriate authorities.

• Step 5: Grant people access to information about them so that they can correct any inaccuracies.

• Step 6: Review current IT usage, including cloud usage by employees, to ensure you are aware of every place your data is stored.

• Step 7: Keep an eye on the extent to which your suppliers use sub-contractors because the same considerations apply to them and you will be held responsible if something goes wrong.

• Step 8: Regularly carry out risk assessments, particularly relating to activities likely to present specific risks to personal data (such as data sharing).

• Step 9: Train staff on their responsibilities and the trusted places for data storage.

• Step 10: Stay vigilant and ensure you have the capability to track data traffic and remove any PID/PII that strays outside the organisation.
A well-known London retailer is putting in hotspots throughout its world-famous store... This enables the store to track which department a customer is in and target them with relevant social media messaging.

WHAT DOES GOOD LOOK LIKE?

Who is getting their information, big data and analytics strategies right – if anyone?

• Bill says: “I suggested earlier that few organisations are achieving great things in this area, but there are some notable exceptions. In the public sector, for example, the UK Government’s Future Cities programme has set up a network of technology and innovation centers in which data is helping to transform city life. For example, with data captured about citizens’ travel habits, transport routes through cities are being optimised. There are also examples of cities changing their lighting schemes around night club times, using data to plan different street lighting models in tune with Saturday night life.”

• Aleem says it is his belief that in the UK, John Lewis is the leader in data analytics. “In retail it’s all about maximising margins and John Lewis achieves this with a great customer experience. Its online presence generates masses of data and the retailer knew that if this could be turned into information as it developed a new website, the platform could be built around real customer need. From modelling the checkout flow to predicting channel access (mobile, PC, etc) John Lewis used a leading operational intelligence tool to optimise its new website and set an industry benchmark for an insight-driven digital experience.”

• Bill also cites a catalogue company that Computacenter is working with. “They’ve been tracking customer activity on the web, noting how long a typical customer spends on line before buying. With the data gathered, they’re working on ways to get customers to dwell longer and move into the timescale when purchasing becomes more likely.”

• A well-known London retailer is putting in hotspots throughout its world-famous store. Already adopted by retailers across America, this enables the store to track which department a customer is in and target them with relevant social media messaging.

• Aleem provided us with the following use case as an example: “In the US a freight train operator running mile-long trains cut its spending on diesel by half a billion dollars a year through the use of data analytics,” says Aleem. “The train company analysed performance data gathered by on-board sensors and used this to define optimum braking and acceleration times for improved, more fuel-efficient train operation.”
WHY COMPUTACENTER FOR INFORMATION, BIG DATA & ANALYTICS?

We help our customers unlock the full business value of information by providing analytics-ready infrastructure for accessing, managing, protecting, hosting and analysing data across multiple sources and platforms. Crucially, it’s an end-to-end solution from the core to the edge, which sets us apart in this industry. Working with many of the leading data and analytic vendors, we are widely regarded as the ‘go to’ partner in this area. We understand the need to underpin availability and service levels across the business through data integration, predictive analytics, prescriptive analytics, integration and the optimisation of SaaS and applications.

BIO
Mark joined Computacenter in 2001 as UK Information Services Director. Following the acquisition of the German business in 2003 his role expanded to cover all Group companies as Group CIO. He is responsible for all of Computacenter's systems and infrastructure and has played a key role in the design and development of most of the systems in use across the Group.

Our vendor agnosticism is a key strength. It enables us to incorporate best of breed technology in our solutions to closely match each customer’s unique requirements. Our Solutions Centers give us a fantastic opportunity both to test the latest technologies and to build our own experience in each new product. We navigate the minefield of new products, validating them on behalf of our customers. This removes the risk for our customers as we test a product to ensure it not only does what it claims, but that it will have no detrimental impact on the customer’s infrastructure when it is rolled out.

BIO
Bill works in the Computacenter Datacenter Line of Business, and provides the go-to-market strategy for the company in all things under the Information umbrella, including Storage Infrastructure, Data Management, Protection & Governance, and Analytics. With 27 years’ experience in the Data Industry, Bill is a regular speaker at conferences and events, and has provided many articles for national press and trade publications. Bill is a member of several vendor Partner Advisory Councils and is a well-known figure in the UK Storage & Information marketplace.
“Time to value” is critical when you’ve invested or wish to invest in new systems around big data and data analytics, and that’s what we bring to the table. Many of our customers don’t have the internal skillsets to manage data in real-time or to derive maximum benefit from their investments. Our partnerships with leading vendors mean that we have competitive intelligence around the latest proven offerings. We can drive the transformation with market leading engagement, governance, and delivery capability needed to ensure success.

**BIO**

Aleem works across the group driving solid understanding, adoption and alignment. Aleem is a respected expert and well-known thought leader in the data analytics world. He has spoken at numerous conferences and gatherings around creating business value from data and the opportunities of cultural and technical adoption of disruptive technology. With a wealth of awards and achievements to his name, he brings industry credibility, gravitas and positive energy, with a deep commitment to shared knowledge and continual improvement. This is in line with Computacenter’s values. Aleem, a proven community champion and evangelist, is also a master practitioner NLP and also draws on 17 years’ of experience in IT.

As our clients make the shift to digital in a world where data is proliferating exponentially, we are ideally positioned to support their transformation in our role as the Digital Services Enabler. We have invested in what matters to the CIO and embraced the digital workplace. Our solutions and services enable our clients to turn their information and data into valuable insight, in terms of both IT operations and the end user experience that’s how we at Computacenter enable users and their business.

**BIO**

With 20 plus years in IT solutions and leadership roles in organisations such as Compaq, Action, BT, Morse and Hewlett Packard, Colin has established a reputation as an innovative technology strategist. He utilises a unique perspective on the market, vendors and strategy to deliver thought provoking blogs, strategic consulting and market insight.

At Computacenter he focuses on strategy, demand creation, solution governance and customer enablement. He is tasked with creating differentiated propositions to accelerate Computacenter’s professional services and solutions growth. He analyses the market, the aims and desires of customers (both now and in the future) and formulates strategies to ensure our solutions leverage the most optimum vendor technologies, delivered via Computacenter services teams, to allow customers to realise their business outcomes.
GET IN TOUCH

To discover more about how Computacenter can support your end-to-end cloud computing transformation from the core to the edge, please contact your Computacenter Account Manager.

computacenter.com/DigitalGateway

Enabling users and their business

Computacenter is Europe’s leading independent provider of IT infrastructure services, enabling users and their business. We advise organisations on IT strategy, implement the most appropriate technology, optimise its performance, and manage our customers’ infrastructures. In doing this we help CIOs and IT departments in enterprise and corporate organisations maximise productivity and the business value of IT for internal and external users.