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Big Data, Big Centre? Looking at the IT Requirements for Big Data Success

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Biography

Darren began his career as a graduate Military Officer in the RAF before moving into the commercial sector. He brings over 20 years experience in telecommunications and managed services gained at BT, MFS Worldcom, Level3 Communications, Attenda and COLT. He joined the VIRTUS (https://virtusdatacentres.com) team from euNetworks where he was Head of Sales for the UK, leading market changing deals with a number of large financial institutions and media agencies, and growing the company's expertise in low latency trading.

Additionally, he sits on the board of one of the industry's most innovative Mobile Media Advertising companies, Odyssey Mobile Interaction, and is interested in all new developments in this sector. Darren has an honours degree in Electronic and Electrical Engineering from University of Wales, College Swansea.

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Abstract

The digital universe is growing 40% a year into the next decade, expanding to include not only the increasing number of people and enterprises doing everything online, but also all the "things" – smart devices – connected to the Internet. Not only does this unleash a new wave of opportunities for businesses and people around the world – the rise of Big data means the rise of big storage.

Introduction

According to the NewVantage Partners Big Data Executive Survey 2017[1], 95% of the Fortune 1,000 business leaders said that their firms had undertaken a big data project in the last five years – confirming that, for most organizations, big data is big business. When analyzed effectively, big data can help organizations identify new opportunities, make smarter business decisions, run more efficient operations, drive higher profits and build a bank of happier – and more loyal – customers.

However, while for many, big data strategies have become a normal part of doing business, that doesn't mean it's easy. The same NewVantage Partners survey said that less than half (48.4%) of business leaders felt that their big data initiatives had achieved measurable results. And Gartner believes that organizations are getting stuck at the pilot stage of their big data projects before they have had the chance to see any benefits at all.


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So, clearly, organizations are facing some major challenges when it comes to implementing their big data strategies.

But what are those challenges? And perhaps more importantly, what can organizations do to overcome them?

Storage, storage (and more storage)

Whilst big data is undoubtedly now a strategic boardroom discussion, the real issues – and the real solutions – still sit with the IT department within an organization, and more specifically, in the data centre.

In its Digital Universe report[2], IDC says that the amount of information stored in the world's IT systems is doubling about every two years. By 2020, the total amount will be enough to fill a stack of tablets that reaches from the earth to the moon 6.6 times – with enterprises having responsibility or liability for about 85%t of that information. So, the most obvious challenge associated with big data is simply storing and analyzing swathes of information.

The sheer volume of data means intense pressure on the security, servers, storage and network of any organization – and the impact of these demands is being felt across the entire technological supply chain. IT departments need to deploy more forward-looking capacity management to be able to proactively meet the demands that come with processing, storing and analyzing machine generated data.

So it's perhaps not surprising that on-premise IT is on the decline and colocation facilities are becoming increasingly dominant within the enterprise. High Performance Computing (HPC), once seen as the preserve of only the large corporation, is also now being looked at as a way to meet the challenge – and is requiring data centres to adopt high density innovation strategies in order to maximize productivity and efficiency, increase available power density and the 'per foot' computing power of the data centre.

Of course, cloud computing, offers almost unlimited storage and instantly available and scalable computing resource – offering enterprise users the very real opportunity of renting infrastructure that they could not afford or wish to purchase otherwise.

Of course, one size doesn't fit all. Organizations need to take a flexible approach to storage and processing. Companies must choose the most appropriate partner that meets their pricing and performance level needs – whether on-premise, in the cloud or both – and have the flexibility to scale their storage and processing capabilities as required. They must also make sure they aren't paying for more than they need and look for a disruptive commercial model, which gives absolute flexibility – from a rack to a suite, for a day to a decade.

The big security challenge

It is obvious that the more data that is stored, the more vital it is to ensure its security. The big data revolution has moved at considerable speed, and while security catches up organizations are potentially more vulnerable.

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This is another area where colocation wins out – as moving into a shared environment means that IT can more easily expand and grow, without compromising security or performance. Indeed, by choosing colocation, companies are effectively renting a small slice of the best uninterruptible power and grid supply, with backup generators, super-efficient cooling, 24/7 security and dual path multi-fibre connectivity that money can buy – all for a fraction of the cost of buying and implementing them themselves.

There are multiple websites and articles dedicated to asking the right questions of your colocation or cloud provider – and we agree that upfront peace of mind on security issues is vital. Businesses should be asking where the provider's data centre is located, how it is protected against natural disasters, security threats, power outages, is there a robust disaster recovery plan, are there comprehensive back-up solutions and so on – and how they deal with potential data loss.

Putting it all together

It should come as no surprise to hear that big data is here to stay. IDC forecasts the market will increase to approximately $32 billion this year from just over $3 billion five years ago.

The demands that come with big data mean that, ultimately, the data centre now sits firmly at the heart of the business. Apart from being able to store machine generated data, the ability to access and interpret it as meaningful actionable information, very quickly, is vitally important – and therefore a robust and sustainable IT strategy has the potential to give companies huge competitive advantage.

So, whilst organizations which are already collating and storing large sets of data, we know that intelligence is only power if it's used. The IT industry has a vital role to play in helping organization to realize these ambitions.

Reference

1 http://newvantage.com/wp-content/uploads/2017/01/Big-Data-Executive-Survey-2017-Executive-Summary.pdf

2 https://www.emc.com/leadership/digital-universe/2014iview/index.htm