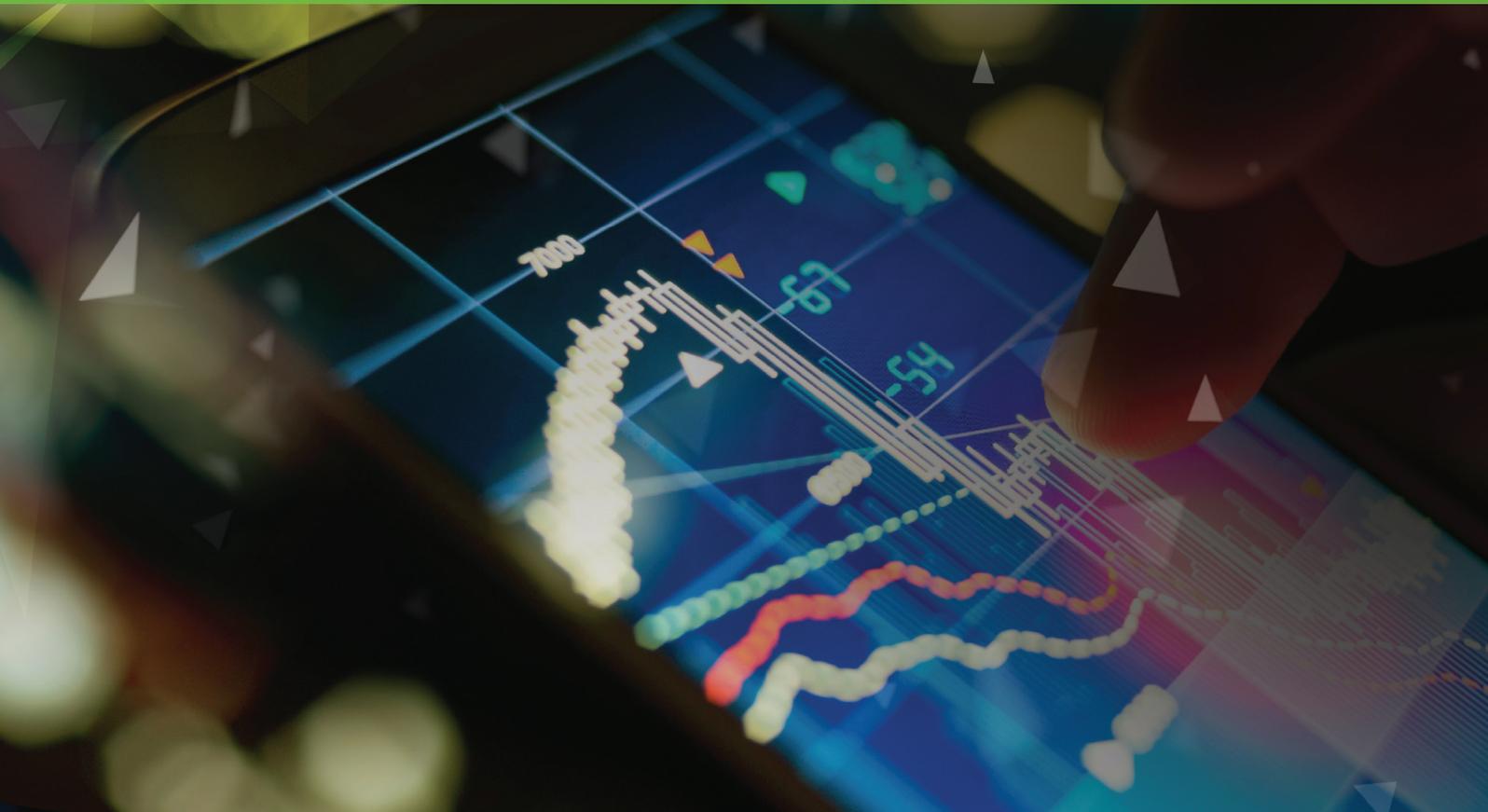


Top IT trends to watch in 2016: digital infrastructure



Data lies at the core of the digital business. But this isn't just about collecting, storing and processing data – it's also about what you do with it. Today, the data that you have access to has the potential to fundamentally change the way your organisation operates... and the outcomes your business stakeholders expect.

'In this piece, we explore some of the key trends that businesses will need to **adapt** to and **embrace** as they **accelerate their journeys** to become digital businesses in 2016.'

Trend 1: It's all about understanding your data... and how to exploit it

According to Kevin Leahy, Dimension Data's Group General Manager for Data Centres, the role of data has fundamentally changed. 'For many years, data centre professionals would concentrate much of their time and energy on things like storage drives and backups, and how best to perform tasks such as replication and de-duplication,' he explains. 'Then, the primary focus was reducing the cost of managing data. Now, that's all changed. Today it's all about honing your ability to exploit data and finding ways to turn it into business value.'

'Of course, this is easier said than done, and to some it may seem like an insurmountable task. The amount of information that the typical business has to deal with has grown exponentially over the last decade. I'm often asked: "Is it possible to have so much data? Is the cloud really capable of controlling and scaling to accommodate these volumes? How do we go about creating policies that will enable us to make intelligent use of the data? And how do we keep everything secure?"'

Whether you're exploring the Internet of things or using big data constructs to identify early patterns, you need to start by focusing on understanding your data. This means that if you plan to set about designing a data centre in 2016, you'll need to approach it very differently to how you would have a few years ago. Back then, you'd probably begin by deciding on the number of servers you needed, and on the basis of that, determine the type and amount of other infrastructure you required.

Now, information needs to be the point of departure. You need to determine how you plan to exploit your data, and what kind of value you're aiming to derive. What's the source of the data? And what network connections will you need to support the transmission of the data, and where will they be located?

So in 2016 we can expect to see IT leaders moving away from tactical data centre decision-making and a growing recognition of the importance of making strategic choices about data and developing roadmaps to achieve the desired outcomes.

Trend 2: Build infrastructures to support the new data model of the digital business

Once you've clarified your data-related aspirations, the next step is to build an infrastructure to support them and identify what changes this will require. Leahy believes that cloud – and how best to leverage it to your advantage – is an important aspect of this discussion. 'What percentage of your IT footprint should cloud represent? Where do different workloads and data sets belong, and for what period? Remember that your data is probably going to need to move from the cloud into the data centre and back again several times during the course of its lifecycle.'

How are you going to manage that process and what modifications do you need to make to your infrastructure to enable it? For example, can you bring your data centre closer to the cloud to achieve what's known as 'cloud density'?

'Once they start to understand these implications, many organisations begin to question whether they really want to own and run their own data centres at all. Some will conclude that, whether it's during the current refresh cycle or the next, a move to a third-party hosting facility is the logical next step.'

'If you decide to go down this path, there are several considerations to bear in mind: How close is your provider's data centre to the cloud? Does it have adequate network capabilities to perform recovery into another cloud – which could potentially be located in a different part of the world? Naturally, the security of your provider's cloud platform is also important,' says Leahy.

'As we move into the new year, I recommend that IT leaders start laying the foundations for fit-for-purpose infrastructures that support the new data paradigm... and apply their minds to how they bring cloud, networks, and security together to create a hybrid IT environment,' he adds.

Trend 3: All on board! Alignment with the business is critical

To effectively build a digital business you need to look further than just the infrastructure. Many IT leaders are taking an increasingly pragmatic approach and asking questions such as: 'How is my infrastructure going to evolve over time and how can I align the way I pay for it with the way my business needs it?'

Until quite recently, there was a general perception in the market that accessing technology through a consumption-based model was a 'silver bullet'. However, the market has matured and today, many organisations realise that they need to look more carefully at which workloads are really best suited to run in the cloud.

'Yes, organisations still like the idea of buying their IT as a service, but they're questioning whether they necessarily need to access it via the cloud,' explains Leahy. 'Are all those applications that are running in the cloud really taking full advantage of the ability to scale capacity up and down? Many applications run in a relatively steady state; they don't need to support varying levels of traffic over the course of the day, month, or year.'

'As a result, more and more organisations are seeing value in moving applications to a hosted model. This approach eliminates the development requirements of migrating to a true cloud model and therefore gives them a far greater rate of return, more quickly. Many of our clients approach us to assist them in developing a roadmap that defines which workloads:

- are most appropriate to keep on-premise, in a well-run virtualised environment
- belong in a cloud-based model (either on their own premises or in that of a third-party)
- might be better served in a hosted environment

'So in the year ahead I predict that IT leaders will start to look very closely at workload and usage plans, and how they can better align their IT costs with the overarching cost model of their business. Essentially it's about adopting a business-focused approach to building your infrastructure, as opposed to a technology-centric one.'

Trend 4: Keeping up with the rate of change requires calls for automation... and a cultural shift

Did you know that some organisations are still running 40-year-old COBOL applications and processing multiple releases a day – in some cases up to hundreds of thousands? ‘How is this possible?’ you may ask. What we’re seeing is interesting: the players that are really breaking new ground as digital businesses are doing so by creating dev-ops environments that foster innovation in incredibly short cycles.

In these organisations, the IT operations folks and development teams have sat down and said: ‘How do we bring development and operations together? How do we make process changes? How can we ensure that we can move quickly and seamlessly from development to multiple, smaller, frequent releases in order to deliver incremental, customer-facing value?’

Adopting this approach will require that you relook your processes. And because it’s impractical to make changes manually on a daily basis, you need to implement a high level of automation. It also calls for a cultural change. It requires a willingness on the part of the development and operations teams to work cooperatively to determine what the business really needs and how they can deliver it. In this model:

- developers will take responsibility for deployments
- operations teams will provide the platform, tools, and automation, and provide ongoing feedback to developers

Trend 5: Technology’s core value lies in its ability to enable the business

Technology remains a critical element of every organisation, but today, its true value lies in its ability to provide real business outcomes.

Leahy elaborates: ‘Clients will often ask me: “Where do I start in transforming my business into a digital business? What operational changes do I need to make? How do I go about integrating them into my development environment? And will I be able to demonstrate and measure the outcomes?”

‘I believe it’s important that you contemplate the business issues as a first step, and only then start considering which technologies will make it all possible. So my last piece of advice to those seeking to succeed in the digital world is to ensure that you look at the business outcomes you’re looking to achieve first, and treat the technology as the enabler. Now’s not the time to get caught up in the ‘speeds and feeds,’ he concludes.

If you’d like to explore the topic of digital business transformation in more depth, read a recent report, just released by the Business Performance Innovation Network entitled [Bringing Dexterity to IT Complexity](#). The report highlights the key roadblocks standing in the way of organisations as they seek to capitalise on digital business opportunities. The study is based on surveys of both business leaders and IT professionals around the world.

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