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EXECUTIVE EDITOR
Axel Bührmann – axel@futurewave.co.za

DESIGN AND PRODUCTION
Vanessa Bentley – vanessa@futurewave.co.za

PHOTOGRAPHERS
Jolandie Wessels, Axel Bührmann

MAIN CONTRIBUTORS
Kathy Gibson, Axel Bührmann

CONTRIBUTORS
Dave Smith, Edward Carbutt, Gareth Cremen, Gary Newe, Kevin McKerr, Kevin Norris, Peter Reid, Philip Gregory, Quintis Venter, Rhys Evans, Robin Wagner, Steven Cohen

SALES AND ADVERTISING
Bjon Venter – bjon@futurewave.co.za
Simon Gotley – simon@futurewave.co.za

SUBSCRIPTIONS AND BACK ISSUES
Allan Davison – allan@futurewave.co.za

PUBLISHER
Kathy Gibson
Future Wave Media
P O Box 3242, Pinegowrie, 2123,
South Africa
6 Edward Rd, Kensington B, Randburg,
South Africa
Tel: (011) 781 0370/1/2
kathy@futurewave.co.za

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(011) 402-0571

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It's been a year since *BusinessIT* was rebranded and renamed. And with this issue of *Futurewave BusinessIT*, we're proud to say that the magazine is now not only going monthly, but has become part of a more comprehensive publishing package.

As Futurewave Media publisher Kathy Gibson says, *Futurewave BusinessIT* has long been a traditional print magazine, going out to readers in the same format that it has for the past 20 years. The magazine has also been delivered to readers as an e-book for the last two years, and last year also started posting content to a Web site and social media channels.

But co-inciding with the move to a monthly publication, all these media have been integrated into a single product.

She believes that with the latest technology, combined with the consumption of information in multiple formats, the touch points for reaching readers have increased and changed. To this end, we're working on ensuring you receive the latest, most pertinent and valuable information in whatever form you want.

We also acknowledge that different media require different forms of information in ways that make sense to that medium.

"For instance, an in-depth feature offers the reader value when he reads it in the magazine or e-book, with pictures and illustrations helping to impart information; in an online or newsletter format, information should be more pithy and easier to consume, with fewer pictures; on social media, the message must be even more concise and tailored to the device it is consumed on," she explains.

"At the same time, it's important to give readers access to all of these media, so they can consume the most relevant information at a particular time or place, but always have access to the full content suite."

So from now on, *Futurewave BusinessIT* becomes far more than just a magazine:

- It's a monthly magazine that is still printed and distributed as normal for those readers who prefer to read in this format;
- It's an e-book, distributed to 12 000 readers and available through the online portal, that retains the familiar look and feel of a magazine and can be read almost exactly like a magazine but on a PC, laptop or tablet device;
- It's an online portal that offers the magazine content in a web-friendly format and also updates readers more regularly on what's happening in the ICT world;
- It's a weekly newsletter to 12 000 readers, in an easy-to-read format that lets them quickly and effortlessly stay up-to-date;
- It's a full social media eco-system, with Facebook and Twitter at the heart of thoughtful and informative social media messaging.

Importantly, all of these separate elements are not individual products – they are all part of a single, cohesive and multi-channel publication. *Futurewave BusinessIT* is not diversifying – we're expanding our reach to be more relevant to our readers; and to give our advertisers the opportunity to reach our blue-chip reader base through a comprehensive multi-channel format.

Axel Bührmann

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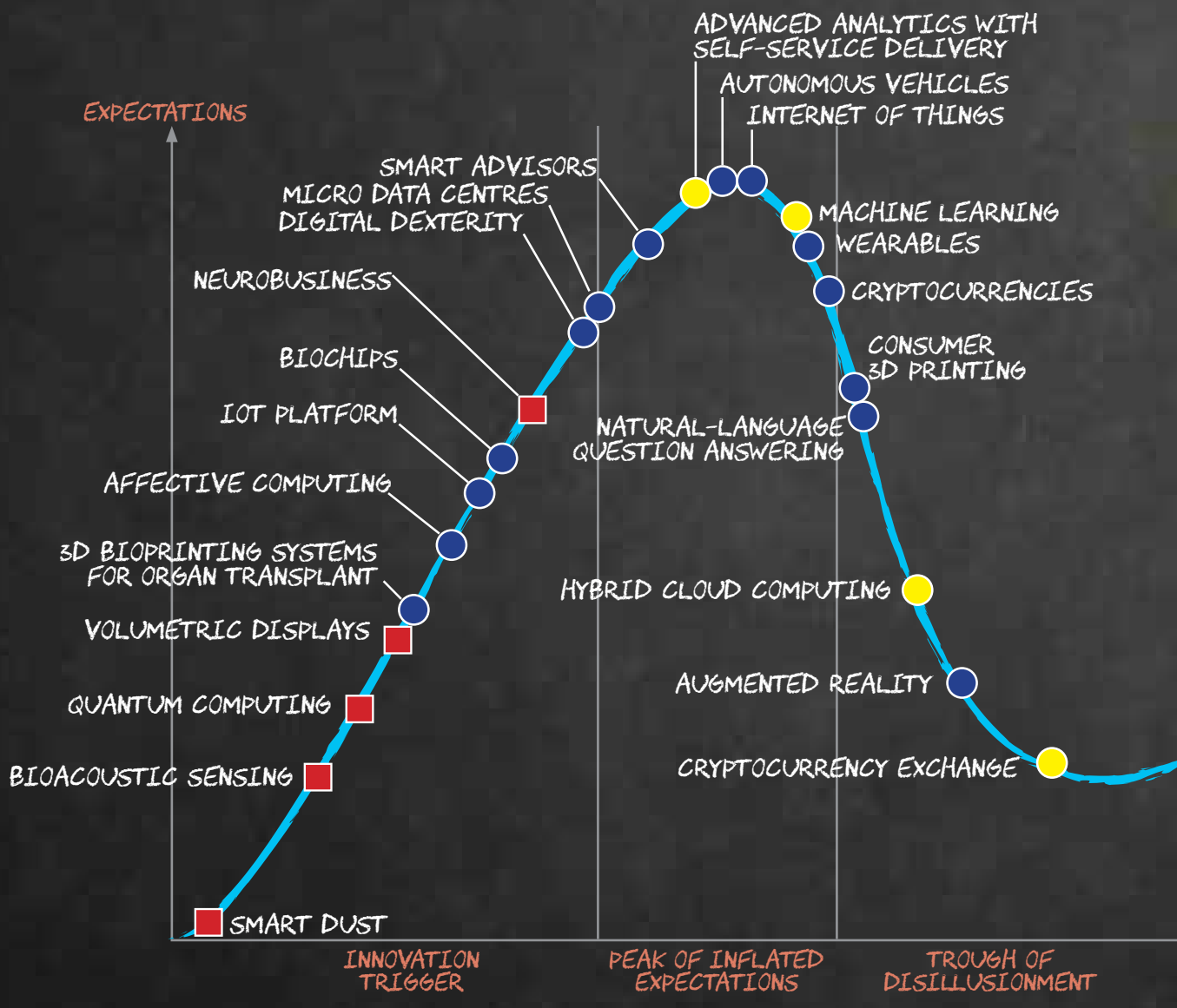
It's a kind of emerging magic

Now in their 21st year of publication, Gartner's Hype Cycle reports provide deep insight into understanding of all things ICT. Axel Bührmann has long been fascinated by the Emerging Technology Hype Cycle, and again finds elements covered in the 2015 report bordering on things magical

The best known of Arthur C Clarke's laws of prediction states that any sufficiently advanced technology is indistinguishable from magic. But a number of emerging technologies discussed in Gartner's always perspicacious Emerging Technology Hype Cycle reflects another of his three laws: "The only way of discovering the limits of the possible is to venture a little way past them into the impossible." And limits are certainly being pushed in research laboratories around the world.

Smart dust

Sitting at the very tip of Gartner's "innovation trigger" is smart dust, described as tiny wireless micro-electromechanical systems (MEMS), robots or other devices that can detect everything from light, temperature and pressure to vibration, magnetism and chemical composition. Gartner reports most current research focuses on making smart dust motes as small as possible, which entails overcoming the limits of miniaturisation,



integration and energy management – and all of that at a very low cost.

"As a complete sensor/communication system integrated into a cubic-millimetre package is still a long way off, we have yet to see major commercial applications for smart dust," says Gartner analyst Ganesh Ramamoorthy.

"However, some reasonably small motes are commercially available for building controls, industrial monitoring and security applications. Given its wide range of potential applications and benefits, this technology will, we believe, have a transformative effect on all areas of business and on people's lives in general. However, due to the lack of any major activity in terms of commercial implementations, smart dust remains in the same position on the Hype Cycle this year as it was last year."

Gartner believes smart dust has compelling and transformational implications for the business arena.

"Smart dust will transform the way humans interact with their surroundings and create new ways for businesses to deliver services, while reducing costs in the process," Ramamoorthy maintains. "This will have wide-ranging implications for businesses' technological, social, economic and legal practices across the globe."

Neurobusiness

Hitting the "Peak of Inflated Expectations", neurobusiness is an emerging technology that applies insights from neuroscience, behavioural science and psychology to improve business outcomes.

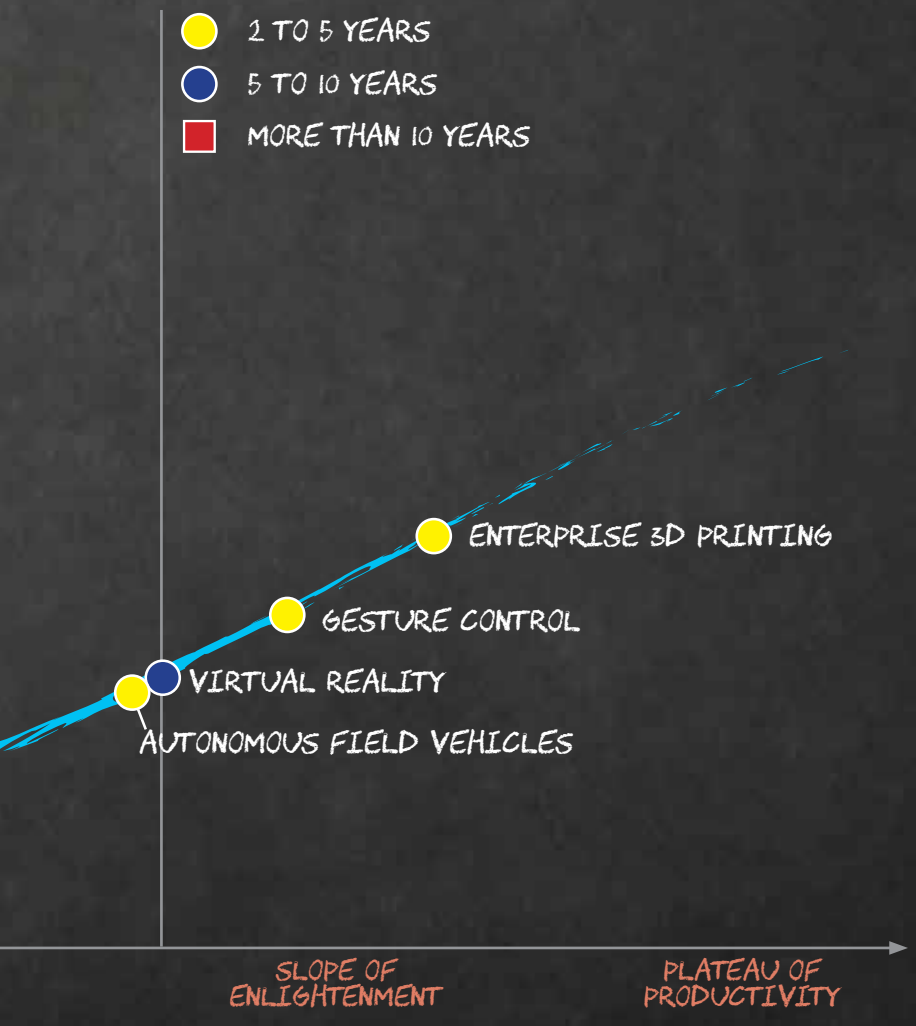
"Neurobusiness is a relatively new term referring to the use of psychology and other social sciences to deliver actionable business insight, Gartner analyst Jackie Fenn points out.

"Popularised over the past few years by a flood of behavioural science books, the sometimes counterintuitive findings from decades of psychological research are being applied to a range of business challenges and opportunities. Neuroscience, in particular, offers a growing ability to monitor, understand and affect the physical mechanisms of the brain which, in turn, promises precision in influencing attitudes, actions and behaviour."

Gartner believes at least another decade of active experimentation will need to occur before neurobusiness achieves its full potential.

"Organisations with high-demand, high-stress or high-achievement workforces should hire experts in behavioural science or anthropology to apply insights from human cognitive processing in designing improved processes, collaboration or work environments," Fenn adds.

"Leaders, managers and HR professionals should study and incorporate 'brain-aware' principles from neurobusiness into meetings, management training and leadership communications to improve employee engagement, innovation and behaviour change." ■



Hype Cycle rationale

"Gartner recommends that enterprises do at least an annual scan of the technologies on this Hype Cycle to question if each technology could lead to significant value to their customers or their enterprise. As always, the scanning exercise should be extended to understand how others in your industry may leverage these technologies. This year, we encourage CIOs and other IT leaders to focus on innovation, rather than just incremental business advancement, while also gaining inspiration by scanning beyond the bounds of their industry. One of the more prominent parts of a digital business strategy is the competitive opportunity/threat section that identifies how industry dynamics and competition may change because of digital technologies."

Digital business key for African growth

Gartner's Hype Cycle for ICT in Africa 2015 report identifies more than 30 key technologies and describes how they will impact business performance during the next 10 years.

"The Hype Cycle aims to help global strategic officers and domestic CIOs from the private and public sectors take account of the current state of important technologies across Africa, including their maturity, adoption and traction," says Mbula Schoen, senior research analyst at Gartner. "It will help them make informed decisions about where to invest and how to advance their operations locally."

Innovations in ICT are dramatically changing the way African governments and businesses operate. For example, sophisticated data mining is being used in smart agriculture in several countries to improve how crops are grown by predicting weather, demand and outbreaks of disease.

The biggest challenge remains the fact that one solution does not suit all countries in Africa. Companies trying to grow their business operations throughout the continent must understand the local market conditions within each country. Small deals stress the business models of many global vendors, to the advantage of local companies.

Africa is emerging in terms of the deployment and use of communications infrastructure. According to Gartner, spending on end-user communications services in sub-Saharan Africa will grow steadily in the next five years, and reach $71-million in 2019.

The largest group of enterprise solutions likely to experience "growing pains" as the ecosystems mature and expectations exceed performance centres on payment. It includes digital wallets, retail mobile payments and direct communications service provider billing.

This is apparent, for example, from the aftermath of the hype surrounding the launch of the Apple Pay service last year. Global adoption of contactless transactions and NFC-enabled mobile payments has been slow, whereas SMS-based solutions have had better adoption in India and parts of Africa. Consumers' lack of enthusiasm for retail mobile payments (mainly due to security concerns) and the unwillingness of large, multichannel retailers to invest in mobile payment processing infrastructures have put this technology almost in the Trough of Disillusionment. Mass global adoption is five to 10 years away.

Of the 35 technologies on the Hype Cycle, 13 will mature within the next five years and have a transformational or high impact on businesses. Of those, some will enable new ways of doing business across industries, such as bimodal IT operations.

An organisation with bimodal IT capability can aim to "do it right" for some projects, as was historically the IT department's mission, but simultaneously strive to "do it fast" for others, where governance is less of a concern and speed or agility is paramount. More than half of organisations in Africa already take a two-speed approach to IT projects, compared with the global average of 45%.

"The mobile telephony revolution that has transformed connectivity in Africa will continue to evolve, with further penetration in the next two years coming from ultra-low-cost mobile devices. The revolution is also drawing investors to mobile learning (m-learning), as this helps promote the evolution of mobile usage in Africa," says Schoen.

Through 2015, emerging smartphone apps (such as augmented-reality viewers, smartphone e-book readers and scriptable mapping tools) will offer new delivery platforms for educational content. However, platform differences will impact m-learning delivery technologies on smartphones for the remainder of the year. For example, technology-neutral content delivery tools, such as HTML5, may not have matured enough. Certain types of innovative apps may evolve more quickly on more open platforms, such as Android, which impose fewer technical and commercial restrictions on developers.

In addition, the continued proliferation of connectivity in semi-urban and rural parts of Africa could represent a powerful force to narrow the "digital divide," one of the biggest social issues in Africa. This goal will be addressed, in part, by Advanced Underserved Area Communications consisting of non-traditional communication systems like high-altitude balloons, airborne drones and very large constellations of small communications satellites, for regions underserved by terrestrial or conventional communications satellites.

Source: IT-Online

Gartner publishes some 120 Hype Cycle reports that paint both industrywide and very specific images of the technology world and its relationship with business. The first-ever annual Hype Cycle was the Hype Cycle for Emerging Technologies, which remains a particular favourite of both technologists and business executives alike.

Since the Hype Cycle for Emerging Technologies focuses on the more-emerging technologies, it mostly supports the last three stages of Gartner's "Journey to Digital Business": digital marketing, digital business and autonomous systems. In several cases, emerging technologies will support more than one stage, such as IoT. However, the way in which IoT is integrated with business and people as an equal peer dramatically changes the way the Internet of things (IoT) systems are technically supported, as well as the business models.

Source: Gartner

Bioacoustic sensing

Earmarked to reach its plateau in more than 10 years, bioacoustic sensing captures natural acoustic conduction properties in the human body. One example is Skinput (above), which – as the name suggests – uses the skin as an input surface.

"Skinput was developed by researchers from Microsoft and the Human-Computer Interaction Institute of Carnegie Mellon University," says analyst Roberta Cozza. "In a prototype system, researchers focused on touch inputs on the arm and hand, and created an armband device for sensing. They evaluated different input locations, such as the fingertips and along the forearm. The technology can also be integrated to augment the experience with a pico projector that projects dynamic graphical interfaces on to skin."

Bioacoustic technologies are already being commercialised with products like the Myo armband from Thalmic Labs (left), which works by sensing electrical signals coming from forearm muscles, which allows users to control different computing devices.

"The Myo, for now, works with a limited number of simple gestures to perform simple commands on devices," Cozza explains. "Using the human body as an input surface is an interesting concept for user interfaces. It could enable consumers to use larger and easily accessible additional input surface areas for interaction, compared with the small surface areas offered by the touchscreens on handsets. Users could benefit by having large surfaces for input without needing to carry extra items. In addition, this type of input would allow accurate 'eyes-free' touch interactions, because of our natural sense of body configuration or proprioception."

Quantum computing

Gartner maintains that quantum computing could have a huge impact on areas such as optimisation, code-breaking, DNA and other forms of molecular modelling, large database access, encryption, stress analysis for mechanical systems, pattern matching, image analysis and – possibly – weather forecasting.

It's still very early days for this emerging technology, which calls for unconventional, complex and leading-edge hardware. However, researchers believe that's not the key challenge it faces before moving to the mainstream – that's if it ever does.

Software is the limiting factor. Gartner analyst Jim Tully explains that effective quantum computing requires quantum algorithms that will solve real-world problems while operating in the quantum state. But while a few have been developed, the lack of these algorithms remains the main challenge.

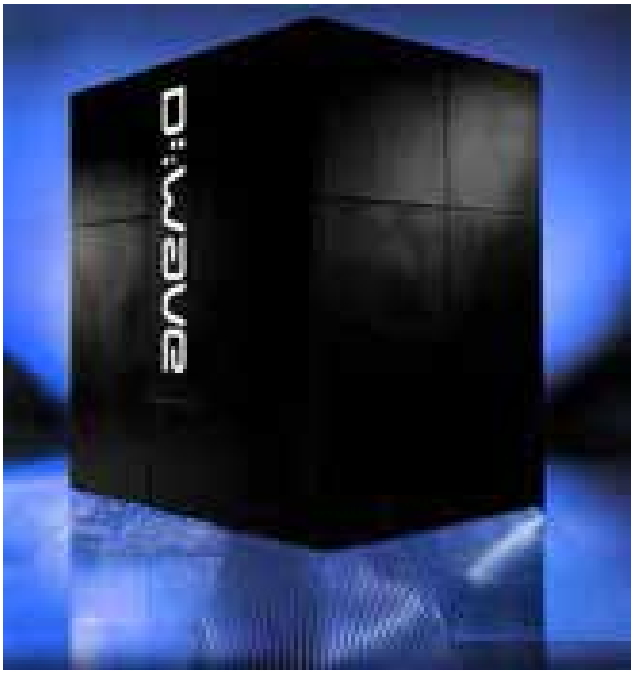
"In quantum computers data is held in qubits, which have the ability to hold all possible states simultaneously," he says. "Known as 'superposition', this gives quantum computers the ability to operate exponentially faster than conventional computers as word length is increased. Data held in qubits is influenced by data held in other qubits, even when physically separated. This effect is known as 'entanglement'. Achieving both states simultaneously is extremely challenging."

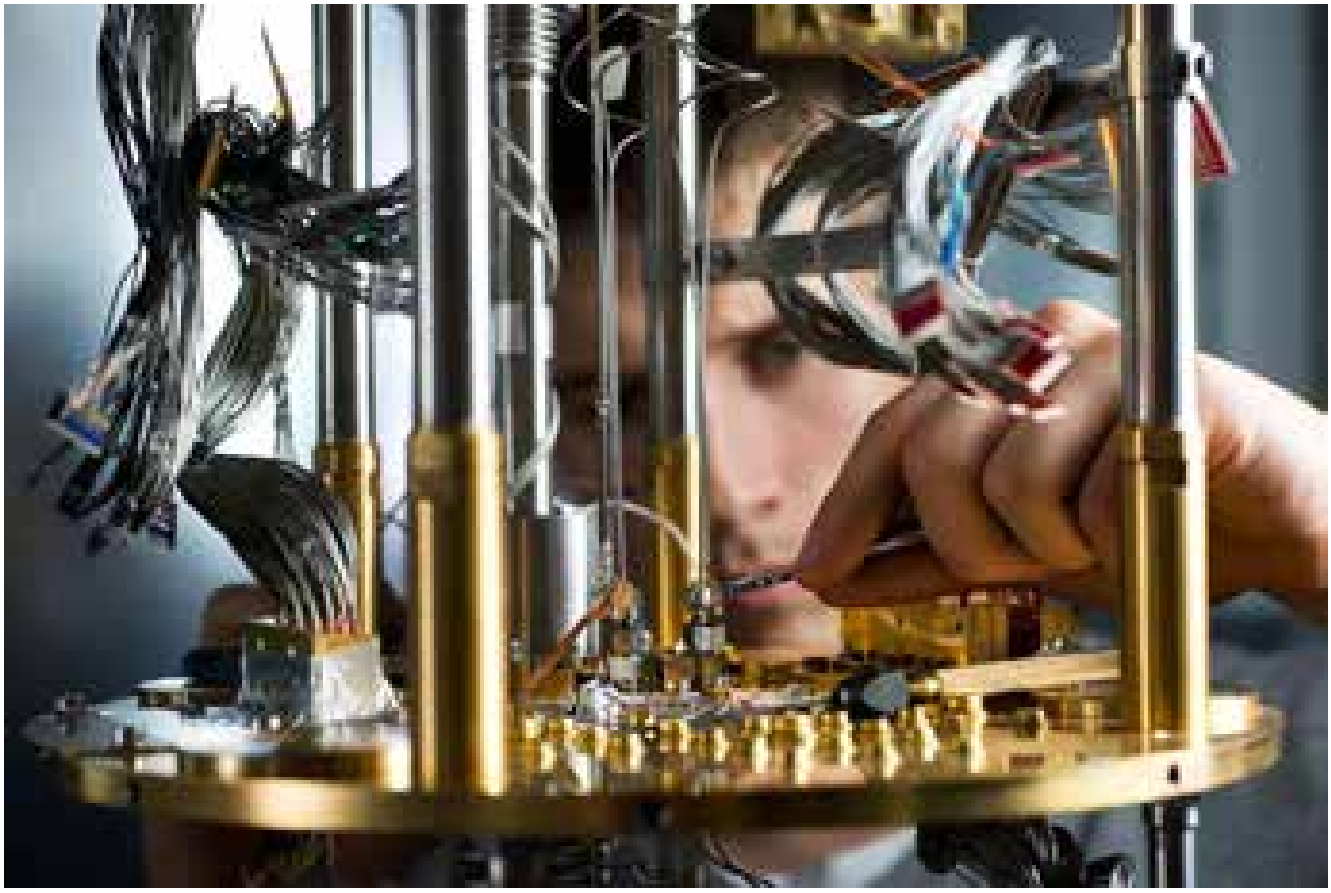
Gartner believes general-purpose quantum computers will "never" emerge, and they will instead be dedicated to a narrow class of use.

"If a quantum computer offering appears, check its usefulness across the range of applications that you require," Tully adds. "It will probably be dedicated to a specific application and this may be too narrow to justify a purchase. Check if access is offered as a service.

D-Wave Systems (pictured) has now moved in this direction, and it may be sufficient at least for occasional computing requirements."

Besides D-Wave Systems, work on quantum computing continues at Delft University of Technology, Stanford University, University of Bristol, University of Michigan, University of Southern California and at Yale University.





Smart robots

"Smart robots will make their initial business impact across a wide spectrum of product- and service-centric industries," says analyst Kenneth Brant. "Their ability to do physical work, with greater reliability, lower costs, increased safety and higher productivity, is common across these industries. The ability for organisations to assist, replace or redeploy their human workers in more value-adding activities creates potentially high – and occasionally transformational – business benefits."

He defines this group of robots as smart machines with an electromechanical form factor that can work autonomously in the physical world while learning from their experiences.

"Smart robots sense conditions in their local environments, recognise and solve basic problems, and learn how to improve," he explains. "Because of their sensory capabilities, smart robots may work alongside humans."

Gartner states that recent key smart robot moves include:

- Amazon's acquisition of Kiva Systems, and its plans to deploy 10 000 Kiva robots to fill customer orders.
- Google's acquisition of Boston Dynamics and seven other robotics technology companies.
- Rethink Robotics' launch of Baxter and Sawyer, which can work alongside human employees.
- The transfer of military and industrial technology to companies like iRobot for development of smart robots.

Biochips

Biochip technologies combine semiconductor and biological sciences and are rapidly moving to Gartner's "Peak of Inflated Expectations".

According to Gartner analyst Jim Tully, the most common form is based on an array of molecular sensors on the chip surface – typically referred to as "lab-on-chip" – using microfluidic micro-electromechanical systems (MEMS) technology.

Biochips can analyse biological elements such as DNA, ribonucleic acid and proteins, as well as certain chemicals.

"Interest in the use of biochips for chemical compound detection is growing because of the need for explosive sensing in relation to terrorism," he explains.

But at this stage, biochips are still limited in that they don't demonstrate consistent accuracy outside research and development laboratories.

"In biological applications, the biochip technology has not been taken to a level where biochips can be administered by non-specialists," Tully adds.

For significant market growth to occur, the use of biochip technology will need to move from specialist laboratories into doctors' surgeries and, later, into the consumer market. It will take at least five years for biochips to enter doctors' surgeries, while consumer biochips for self-diagnosis are probably five to 10 years away. The potential demand could be huge – provided the costs are sufficiently low."

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All change as **insurance** looks to **transform**

As businesses in all sectors grapple with how to digitalise to meet increasing competition, the insurance industry remains one of the least transformed – but the signs are already there that it needs to adapt or die. Kathy Gibson asks why … and how

The insurance industry operates with a business model that hasn't changed much – if at all – for the last 400 years. But in the current economic climate the industry is facing increasing economic pressures.

Juergen Weiss, managing vice-president of Gartner focusing on insurance industry research, explains that the traditional value proposition is that the insurance company is the expert in assessing risk, and the customer buys into what is essentially a membership at the cost of a regular premium.

"There has never really been any competition within the industry," he points out. "In the short-term insurance industry we've had price wars, but that's a zero-amount game, and overall it's been a fairly stable environment. This is also down to the fact that there is a high level of concentration in the insurance industry, and most markets are in the hands of a top five or 10 players.

"So you have a kind or oligopoly – a couple of market leaders and little appetite for change."

However, the world has changed, Weiss says. "In the past was difficult to enter the market. For a start, you needed a distribution network. Insurance is still sold primarily through intermediaries and you would need to build this channel. You also needed re-insurance capacity, underwriters, and claims adjusters who can assess risks and claims. So the cost of entry into the market was really high.

"Regulations were another stumbling block preventing just anyone from opening up in insurance."

Another factor holding the insurance industry back from transforming is – ironically – technology.

Weiss points out that most of the insurance giants are still running their core insurance processes like policy administration and billing on old mainframe or minicomputer systems developed in the 1960s or 1970s.

"And these systems were designed to have a product-centric view – they are not customer-centric."

So even if insurance companies offer multiple types of insurance and products, the different business units are still treated as silos.

The distribution networks add a layer of complexity, with insurance companies typically dealing with a mixture of independent and tied agents. "So the insurance company doesn't own the customer, and only has a small view of the customer reality.

"This adds to making customer-centricity a challenge."

When it comes to developing new ideas and introducing new technology into the

industry, the fact that insurance is not an attractive employer plays a role. "So the industry doesn't attract the best talent. And the average age of insurance industry employees is above 50. This doesn't necessarily mean that they are not innovative, but there are a lot of new technologies emerging and few skills out there."

Having described how the insurance industry has traditionally operated, and why this has limited its ability to transform, Weiss notes that there are changes taking place across the board that will influence insurance.

Industry fluidity means that the barriers between industries are becoming more blurred. Cross-industry alliances are happening, and industries are expanding their value chains into the domain of other industries.

"For instance, we are increasingly seeing retailers offering financial services; technology providers are moving into the financial world or becoming retailers.

"We are seeing industries spilling over into other industries."

With industry fluidity taking place all around us, the customer is becoming much more important, Weiss says. "As the industry becomes much more competitive, all the major insurers are looking to customer-centricity in their offerings."

The problem for companies is that it's so much easier now for customers to change their suppliers – and there is more competition.

"The barriers are going down everywhere," he says. "E-commerce Internet trends have lowered market entry barriers, and new entrants don't have to build the distribution networks or comply with regulations because they are partnering with banks and online distributors."

There is also a growing tendency for products and services to become more pervasive, Weiss says. "If you bought insurance a couple of years ago, you would have bought into an incident-driven and product-driven service model – and if you bought the wrong cover you wouldn't be paid out.

"Today, the consumer is more important. He is more willing to change his service provider and he has a different expectation. He expects a more holistic value proposition because he is used to getting a pervasive service model in other areas of his life.

"So the insurance companies are trying to create a value proposition that is based on the customer, not on the product.

"And this becomes a very competitive environment for insurance companies."

He points to life insurance as an example, where the consumer has different needs at different stages of his life, and the insurance should be able to adapt.

The industry is also seeing a shift from consumers buying a traditional product to them using insurance as a service. "We are seeing a greater number of usage-based insurance products, where the policy adapts to your behaviour," Weiss says. "Examples include paying per kilometre that you drive; or paying less if your behaviour is less risky. Paying for what you consume is a model that is popping up in many industries, and in insurance it's changing the value proposition and led to the entry of new competitors."

Some new business models that Weiss has seen around the world include funeral insurance as an add-on to the telecommunications company's mobile bill; freemium offers where consumers get some services for free while paying for others; group buying where more people in the group means better rates.

All of which presents existing insurance companies with some daunting challenges.

Weiss recommends that companies offering traditional insurance products today take some time for self-reflection, to figure out where they are what their level of digital maturity is compared to peers.

"Once you've done that you need to figure out what your competitive differentiators are. If you are creating a digital vision for the organisation, there are so many different flavours and varieties of solutions, and you need to know where your strengths are.

"These strengths could be that you service your customers the best; you could be product experts; or the most cost-effective operation. You might want to build the best value network or a holistic value proposition. There are a number of potential target models.

"Or there could be areas where you particularly want to compete, areas that you are strong in. So identify what your areas of innovation and differentiation are.

"Play to your strengths and aim to either eliminate or mitigate your weaknesses."

Technology is going to play a critical role in any new developments, and legacy systems could be barriers to innovation. "So start developing bimodal IT capabilities, running IT at two different speeds," says Weiss. "On the one hand you have traditional IT and traditional development, which is important because it's what the business is running on.

"The other is a much more agile approach to innovation and may include innovation labs, think tanks, crowdsourcing or open APIs to invite contributions from the development community. This second mode is much faster and more agile."

While working on the IT systems, it's a good idea to consolidate and simplify, Weiss adds. "One of the challenges in the industry is not only that the systems are old, but that there are so many of them. One insurer in Johannesburg has 25 policy administration systems, and they want to reduce this to four."

Consolidation and simplification from a product and process point of view is also mandatory for companies that want to change, Weiss says.

"One Dutch client went to a software as a service (SaaS) model and reduced the number of products from 100 to four. Another client has the vision of creating a bill of materials, with common components that can be re-used and localised for different markets."

Insurance companies traditionally do everything themselves, and this should also change, he adds. "In typical insurance companies the degree of vertical integration is still very high. They own the product and the distribution, as well as the service, so there is an opportunity to lower the degree of vertical integration. You could become an expert in some things, and buy services from someone else. That's one of the reasons that start-ups are so much more agile; because they don't have the network and they may even not have technology. Instead they focus on their strengths and capabilities and as a result their go-to-market is much faster."

Analytics has a big role to play in helping the insurance industry to transform, Weiss says. "Typically insurance companies have a lot of data, but not much information. They don't even need to collect more data, but could be a lot more efficient if they leverage what they already have. Better data analysis and analytical capabilities will help them to tailor a better value proposition."

Going one step further, using analytics could help insurance companies to start correcting or changing behaviours based on real information. ■

Accurate and **dense data** imperative for insurers

By Robin Wagner

The insurance industry is faced with the challenge of managing risk while providing efficient and cost-effective services. Controlling loss ratios, pricing products correctly to ensure the right balance of profitability and service, and differentiating in order to create competitiveness and to access new markets are all essential.

Data underpins achieving these aims, and it benefits all insurers to become an active part of contributing towards a shared database of customer information.

The more information available on the customer and the more sophisticated the analytical model that can be applied, the more complete and accurate assessments can be. A 360-degree view of the consumer serves the insurance industry well in enabling them to better price services, differentiate their services according to customer requirements, and offer solutions to a wider segment of the local market.

Within the South African market, a large percentage of consumers do not have insurance. For example, while there are 10,5-million vehicles on the road, only around 3,5-million of these vehicles are insured. One of the reasons for this is that insurance products have typically been too expensive for the majority of consumers to afford. This is a result of insurers having to increase their prices to cover loss ratios – in other words, to ensure that the premiums they receive exceed the claims that are paid out.

Insurers need to provide the right products at a suitable price for the market. Access to and insight derived from the vast repositories of available data play a significant role in achieving this. Data such as claims history, credit history and other information can inform and help predict customer behaviour, which enables more accurate risk assessment. Granular 360-degree information at an individual customer level allows insurers to tailor products to suit each customer, rather than just offering a generic service basket.

This allows insurers to accurately price products for each customer to tightly control loss ratios and manage risk. It also allows for differentiated products to be delivered in order to service a wider market and create access to insurance products for more South Africans. Finally, it allows for greater transparency in terms of pricing for the consumer.

For insurers, this 360-degree customer view not only enables more effective and dynamic risk management and better pricing, it also helps to improve operational efficiency. For example, with access to accurate customer databases, application forms can - to a large degree - be pre-populated, which saves time and effort. In addition, access to information can help to mitigate the on-going risk of insurance fraud. It is estimated that claims fraud in South Africa costs the insurance industry between R4-billion and R6-billion a year.

A complete picture of claims behaviour allows for more accurate and effective tracking of fraudulent claims activity across individuals and households. It also enables sophisticated fraud analytics products to be built on the data for more effective fraud prevention.

However, all of these benefits hinge on the ability to create a complete, comprehensive and accurate view of customers across the insurance industry. The Insurance Data System (IDS), which has been developed under the auspices of the South African Insurance Association (SAIA), is a database of all personal lines claims and policy information collated by participating members of the short-term insurance industry.

IDS lets participating insurance organisations access an integrated view of claims prior to taking on further risk. The system holds over 9-million claims records. With a significant focus not just on data density but also data quality, and the integration of data from other sources to cross-validate information and provide greater insight, IDS enables insurers to leverage a comprehensive view of the consumers they quote. The enhanced system now incorporates enough high quality validated information to create a country-wide view of claims behaviour according to a variety of criteria, such as the individual, vehicle type, claim type, frequency of claims, claim by geography and more. It effectively offers the first industry-wide consolidated view of claims behaviour in the local industry.

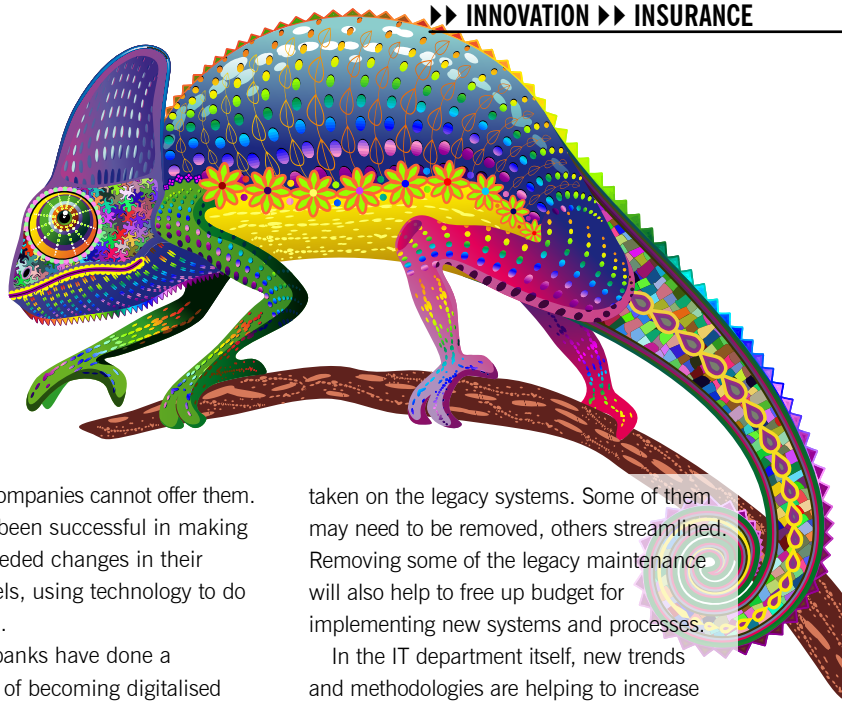
This information is immensely powerful, as it offers insurers a full picture beyond just their own information and experience – for example many territory risk rates are based on that insurers experience of risk only. This complete view, along with access to value-added solutions that help to expedite the claims process, reduce risk, predict loss ratios and more, offer the insurance industry more insight for improved decision-making ability and reduced risk.

Ultimately, however, the value of this data is determined by its density and quality, and the evolution of the insurance industry relies on the ability of its players to contribute to this shared repository of information. The perception that sharing data will damage competitive position has fast become out-dated, and today the benefits of contributing and accessing shared information far outweigh the benefits of holding onto data for exclusive use.

A comprehensive, 360-degree customer view can be leveraged at all stages of the insurance process, from product and service development to applications and underwriting right through to the claims process. This is critical for competitive positioning, access to new markets, enhanced customer service, mitigated risk, reduced loss ratios, and at the end of the day, better profitability. ■

Robin Wagner is the vice-president: consumer and insurance at TransUnion

Insurance industry: adapt or die



By Kathy Gibson

The insurance industry needs to radically change its business models, or risk becoming irrelevant. That's the harsh warning from **Simon Winter, executive director: banking, financial services, capital markets and insurance at Dell EMEA**, who points out that insurance is one of the last unreconstructed industries left.

"The core competence of the insurer is to understand risk, pricing that risk and offering an aggregation to its customers," he explains. "This relies on understanding data. But now, for the first time, there is a real threat to this industry. Technology and the use of technology is set to fundamentally disrupt the industry."

Smart houses and self-driving cars are just the tip of the iceberg when it comes to insurance industry threats. Winter points out that users are able to use the technology readily available to them to mitigate their own risks and thus reduce the cost of any claim.

For instance, one of the most common household insurance claims relates to water leakage – but often the reason there is major damage is because the leak is undetected for some time. With smart sensors, leaks could be detected as soon as they occur, limiting the resulting damage and making the householder question the need for expensive insurance.

On the operations side of the business, there is a lot that can be done to improve insurance companies, particularly on the long-term side of the business, Winter adds.

"A lot of the systems in long-term insurance organisations are 20, 30 even 35 years old now. These companies are running multiple back-end systems for different product types.

"Insurance companies really need to modernise these legacy systems so that they can reduce the cost of operations and enable their businesses to become digitised."

The old back-end systems mean companies are slow to change and, while customers are looking for digitalised solutions, the insurance companies cannot offer them.

Banks have been successful in making some much-needed changes in their operating models, using technology to do so, Winter says.

"I think the banks have done a pretty good job of becoming digitalised businesses. They started off with multi-channel offerings and are now in the omni-channel space, mostly delivering the services that the customer wants."

However, what they haven't done yet is change their product offerings, says Winter – and this needs to be their next goal.

"We are seeing smaller fintech firms going after segments of the banking market, and there is competition as well from the telcos and retailers.

"The banking sector needs to become more efficient. And it needs to start innovating on its product lines, creating customer-specific product bundles that treat the customer as an individual."

The main problem that banks have to address is their legacy core systems, where the risk involved in changing poses very challenges for the institution.

Winter says one possible solution is to externalise the banking products outside of the core systems.

But some change is vital, he says, and all financial institutions would do well to shift their thinking away from products and towards the customer.

"I think you have to put the customer at the heart of what you do – they are not an adjunct to the product."

Before beginning any system re-organisation, Winter recommends that financial companies undertake a study of their customers and determine what it is the customer wants. From there, the processes can be determined and then systems can be deployed to streamline the processes. This should aim to drive as much efficiency as possible.

Once that's determined, decisions can be taken on the legacy systems. Some of them may need to be removed, others streamlined. Removing some of the legacy maintenance will also help to free up budget for implementing new systems and processes.

In the IT department itself, new trends and methodologies are helping to increase efficiency and drive down costs, Winter adds.

The application lifecycle is becoming much more agile, leveraging methodologies like DevOps that allow management through a single pane of glass.

"Organisations are realising that they need IT's help to become more agile. So IT needs to address its legacy challenges, and make sure its culture and people are up to the challenge. For DevOps, your team needs to have a different mindset, to become techno-functional."

Overall, Winter points out that banks are more resistant to change than other financial services organisations because of their critical role in the overall economy.

"But insurance companies have to change," he says. "The really have no choice. They have got to innovate and technology is going to be a critical driver of that change.

"They can't just change their systems, either – they have to change their businesses, with new and innovative products that cater to next-generation customer needs."

Winter explains that Dell has transitioned itself from a pure hardware and software supplier to offering industry-specific consulting and managed services in the financial services industry.

For instance, he says, the company runs the IT operation for 35 insurance companies in the US on a managed services basis, while it has transitioned another 60 companies on to modern technology using its tooling systems.

"Our strategy is to turn our attention to new markets like South Africa now," Winter adds. ■

Technology trends shaking up the financial services industry

Quintis Venter, a senior software engineer at ThoughtWorks, outlines five of the technology trends South African institutions have to come to terms with

The financial services industry has to consider the adoption of new technology trends to augment its capabilities and to test market appetite for new products and services.

Cloud computing and big data

These two trends cannot be seen in isolation, and financial institutions are perfectly placed to leverage the benefits of these comparatively new developments in technology delivery.

They can do so by establishing their own, secure cloud computing infrastructure that eliminates the need for discrete computing power and storage capabilities. The benefits of interrogating big data allows them to respond more rapidly – hopefully proactively, but this is more difficult to pull off.

And not because of any technology limitations, but because of the way that these institutions are structured and how they operate. The reality is that we have a situation in which we are waiting for human attitudes to catch up with the available technology.

In order to achieve this transparency, while still operating within their security and governance rules, requires a significant revision of their data policies that allow the flow of information from one division to any other without fear or favour.

Achieving this ideal is by no means an easy task, and – perish the thought – experimentation. This concept may be anathema to the industry, but now is the not the time to be sticking to old methods when the industry, and especially consumer expectations, are in flux.

Security

A security infraction is a constant axe hanging over the head of financial services executives - and understandably so given the multiple examples of breaches of financial systems.

This speaks to the need for greater collaboration and transparency between the different departments and roles within the financial institutions. It is not uncommon to have the development, security, IT and information security operations working in isolation from each other, and this is truly a recipe for disaster.

It is understandable that certain compliance requirements have led to this situation, but the range of threats to security today are of such a nature that this is likely to facilitate rather than prevent a severe breach.

The multitude of attempts that banks face every day requires that security is an active and evolving practice.

Social media

This focus on the user and user experience has taken on new dimensions with the rise of social media.

Many financial institutions have latched on to this development with vigour in order to open communication lines and improve relations.

The big advantage is the ability to gain immediate feedback when testing out new products or approaches. A lot of effort has therefore been pumped into developing apps that allow customers to respond, but the true value in social media lies well beyond that.

And this concept has not yet been fully grasped. The value for the industry lies in melding the immediacy of social media with the benefits of cloud computing capabilities and big data intelligence.

The forward-thinking institutions will be using these three tools to constantly iterate their offering in response to customer feedback, supported by what the data tells them and their cloud infrastructure allows them.

Mobility

There is little doubt that the transaction platform of the future is the mobile device.

Recognising this is not as easy as ensuring that the service, and especially the security of the service, is maintained at the levels customers expect, or delivers the experience they demand. The added security challenge for the industry is that they can only assure what happens at their end, with the security of the devices themselves left in the hands of their customers.

It is also because of these risk and compliance concerns that the financial institutions have erected silos to protect other areas of the business from intrusion through the mobile and Internet platforms. This is a mode of operation that used to make sense, but no longer - despite the inferred threat of the millions of devices that potentially open a doorway into their back-end systems. ■

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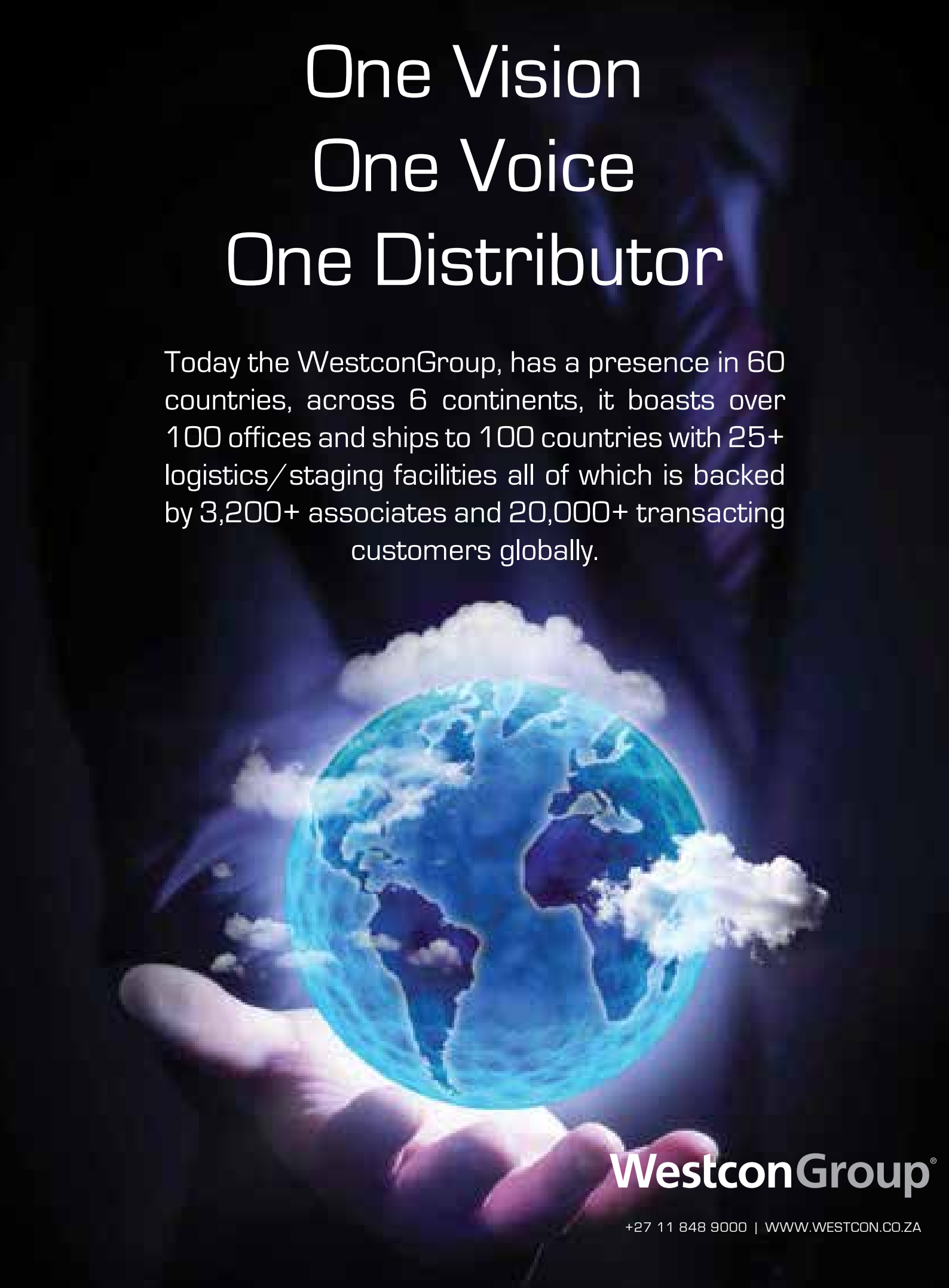

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Come together with **DevOps**

DevOps is a new term that's taking the IT world by storm. But what exactly is it, and how can South African companies take advantage of it to develop better applications quicker? Kathy Gibson found some answers

The term DevOps has been kicking around for some time, and we know that it's the secret behind much of the success of new-age digital organisations. But, before South African companies can reap the full benefit that can be derived from DevOps, it's important to understand what it is and how it can be employed for maximum advantage.

Wikipedia defines DevOps as: "A software development method that emphasises communication, collaboration (information sharing and Web service usage), integration, automation and measurement of co-operation between software developers and other IT professionals.

"The method acknowledges the interdependence of software development, quality assurance (QA) and IT operations, and aims to help an organisation rapidly produce software products and services and to improve operations performance."

This many sound like existing development methodologies like Agile, but there's a fundamental different in that DevOps promotes a set of processes and methods for thinking about cross-departmental communication and collaboration between development, QA and IT operations.

One of the main goals of DevOps is to deploy applications quickly and often, leading to faster time to market, a lower failure rate for new releases, shorter lead times between fixes and faster mean time to recovery in the event of a crash. The DevOps approach aims to maximise the predictability, efficiency, security and maintainability of operational processes, often using automation.

Justin Arbuckle, vice-president: EMEA and chief enterprise architect at Chef, explains that DevOps is tied up with the whole transformation of business.

"What we need to do has evolved out of our thinking on how businesses should be run," he says. "It turns out that the core principles of DevOps are informing the changes and strategies in our organisations."


Justin Arbuckle

It's helpful for IT people to understand that there is a revolution going on in how

we think about business. "It's not actually about DevOps, or about West Coast ideas or Web-based companies," Arbuckle says. "All business is beginning to change.

"But often when you move from the big Web to large enterprises there is a core thing that makes people not want to get started on change. Or they do an eight-week project and never get beyond that.

"But you can do it, and you must do it. Unless you approach the operating model using DevOps you are making your company unstable. If you think of your company now as compliant and safe, that's an illusion."

In the transformed enterprise, Arbuckle says, new products iterate quickly over a range of requirements. "They don't try to anticipate an unknown future. The ability to iterate quickly lets it remediate risks. You should have the capacity to take a best guess, produce a minimally-viable product and quickly iterate on that."

Velocity is a new imperative that has come out of the big Web, Arbuckle adds. "If you want to operate at higher velocity, you will make mistakes. But moving faster lets you remediate faster, and you need this ability more than you need processes that sit across the organisation.

"Let velocity be your guide."

This all adds to the reliability of organisations which start to become anti-fragile, Arbuckle explains.

And speed is imperative: "If you can't respond fast, you are just talking to yourselves."

In South Africa a group of IT developers and academics has set up a DevOps Working Group, with the intention of exploring the discipline and promoting its use in the local environment.

Adam Jacob, chief technology officer of Chef, spoke at the group's inaugural meeting about how DevOps came about, and offering some pointers to making it work.

"DevOps was created by the people doing the work, and is unique to each person," he says. "It came from a 15-year journey of running the deep Web which become a style of working."

He explains that the people tasked with running big Web sites came to realise that the IT disciplines they'd learnt simply didn't work in the new environment.

"We learned over time that we had to build higher-trust relationships, automate more and be more self-reliant. When you run into problems, vendors are very happy to sell you a solution - they always have an answer to your problem. But they don't truly understand your problem, so you are really on your own."

With the challenges facing IT organisations difficult to define, coming up with a definition or methodology for DevOps is almost impossible, Jacob adds.

"There are some common themes and behaviours, but there are a million different definitions," he says. "DevOps doesn't exist as a theoretical concept but as a lived experience."

In general, though, there are some macro trends that are common to all the people who are successful to DevOps.

Chef came up with the idea of DevOps being a bit like the martial art Kung Fu, or wushu. "There are hundreds of different wushu schools but they are all recognisably wushu," he explains. "Clearly they are not all the same, but they all share three basic ideas."


Adam Jacob

These three shared elements are the basics, the forms and the applications.

"These three things are shared. The way you teach the basics is the same, the forms are the same, and the ways they apply them in the world are similar but unique to individuals. And that's how you know that they are going to do wushu.

"You can think of DevOps in the same way."

Jacob explains that DevOps is less to do with software development as with re-inventing how we run our businesses.

"Whether you like it or not it's what we are doing now – and it turns out that we are all practicing DevOps. What's needed is to take all the specialists and connect them so that people can all come together as a team and accomplish what they can't do on their own."

At its foundation, DevOps is a cultural and professional movement focused on how we build and operate high-velocity organisations; born from the experiences of its practitioners, Jacob says. He warns that the same principles applied to low-velocity organisations will result in instability.

"It's worth remembering that the movement came from people who were web innovators. As you apply it to your own context, you need to take from it what works for you."

DevOps practitioners all believe in – and live – a set of principles, Jacob adds, and people who don't buy into these principles aren't embracing DevOps.

The principles are as follows, he says:

- Design for safety, contentment, knowledge and freedom.
- People doing DevOps favour people and products over companies. "It is always about the fact that the people doing the work like it, because there is a better chance they will build better products. Happy people build happy products equals happy companies …"
- DevOps people are lean. "They eliminate non-value-added action; favour pull over push; aim for continuous improvement, disruptive change, small batches and experimenting."
- DevOps people have a relationship with failure. "It is normal and the status quo, not a thing to be avoided; panicking means you are not fixing the problem."
- Ubiquitous workflow automation. "Once we know how we want to work, we build workflow and have automation by default."
- Diversity. "DevOps is diverse and a high-functioning team must be diverse – the more of that you can get the better; you want a cross-section of skills."

The form of DevOps – what people actually do – requires the team to focus on a purpose that's bigger than the task in hand, Jacob says. "So a job might not be about fixing the site, but about changing the country."

The forms are DevOps are as follows, he explains:

- Believe. "What do you believe will create good outcomes in your space. Use active voice, aim for good outcomes, make them public, include the DevOps principles and mix in the things that are

unique to your industry or problem."

- Build a highly-empowered team. "They must have permission to act, paired with the context to make good decisions; with leaders who care about the purpose of the organisation and who share your beliefs."
- Form diverse bonds. "Meet with people outside your speciality; ask them what they do, and understand their problems and perspective. They could be people from legal, financial or sales."
- Use this to build consensus on important decisions. "Circulate plans, then incorporate criticism and feedback. This will help to solve problems."
- Have strong value propositions. "People buy painkillers not vitamins. Focus on that to make things people love by focusing on needs not wants. Differentiate between one customer wanting a feature versus many customer needing a feature."
- Build a roadmap. "Include visions and feedback. Balance innovation with needs, group them into themes, distil those into features and validate them with customers. The themes should hold, the outcomes might hold, but the features will change."
- Always have delighters. "Included features that make customers happy when they touch it."
- Build features iteratively. "Don't try to paint the Mona Lisa incrementally because you would need to know what it looks like before you start. Rather start with a sketch, add a bit of colour, then finish it."
- Manage risk. "Work in small batches with near-term hypotheses. Remember, validation must come from customers and nowhere else. Introduce near-term volatility to gain decreased long-term risk – it makes the near-term roadmap less clear, but reduces the risk of something in the long-term."
- Don't worry about scale. "Only worry about it when you should – and this is usually way later than you think."
- Execution. "People will come up with new theories and you need to challenge them with execution. Execution always trumps theory."
- Demonstrate what you do every week. "And invite everyone to give you feedback."
- Choose languages and tools that fit the job. "We are all polyglots; and new languages and tools are one of the great benefits in this industry. Developing iteratively and in small batches will protect you from risk."
- Have a bug database. "Triage and prioritise bugs."
- Do continuous integration. "Always integrate branches to the master in short-lived iterative branches. Testing is good but continuous integration is better so you can fix the build when it goes red."
- Obey the four-eyed rule. "Change nothing unless at least two people have seen it. Other human beings must review your work all the time."
- Write tests. "But write them one test at a time, as you need them."
- Continuous delivery. "You should be able to ship your ideas whenever you like – you don't have to but you could."
- One path for change. "The way change moves through the organisation is fixed. If you have one pattern for consistency it is easier to reinforce principles and aid flow. It helps people to help each other, and it is flexible at the level of execution."
- Code goes through the same workflow regardless of whether it is for applications or infrastructure.
- Focus on availability. "This includes uptime, reduced mean time to diagnose and mean time to repair. Failure is inevitable, how you react to it is what makes the difference."
- Collect metrics. "This can be from the operating system, the network, application or process."
- Plan for capacity. "You should be doing that already but probably aren't. Identify key metrics, put them on a graph, set a limit, plot a trend line; and expand the time horizon - which is when you need to scale."
- Only alert on what is actionable. "And then get the attention of the right people – but as few of them as possible; the people who can take action."
- Practice incident response. "This is possibly the step that matters the most. The first responder is the incident commander and they decide what to do, co-ordinate resources and communicate status. It's not about rank, but there can only be one incident commander."
- Incidents lead to post mortems. "Learn not to blame, but describe the incident, establish the timeline, identify contributing factors, describe customer impact, describe remediation tasks, and describe how tasks can be improved for the response process."
- Use scalable systems design. "Autonomous actors are responsible for themselves, making progress to the goal with clear promises to other actors who are able to evaluate the quality of them."
- Design for simplicity, extensibility and re-use.

Once it's spelled out, DevOps sounds complex and sometimes contradictory, but Jacob says there is safety is sticking to the technique. "Remember the principle, practice the forms and use your discernment," he advises.

"In the real world, DevOps is about taking a business problem, grabbing stakeholders across the organisation and for eight weeks just trying it. You can afford to invest eight weeks."

To test the principles, Jacob advises companies to pick a vertical problem that is small enough to have a meaningful iteration in those eight weeks.

"In stage two, set out your purpose, beliefs and teams. Write down the purpose and beliefs, empower the team and be available for context."

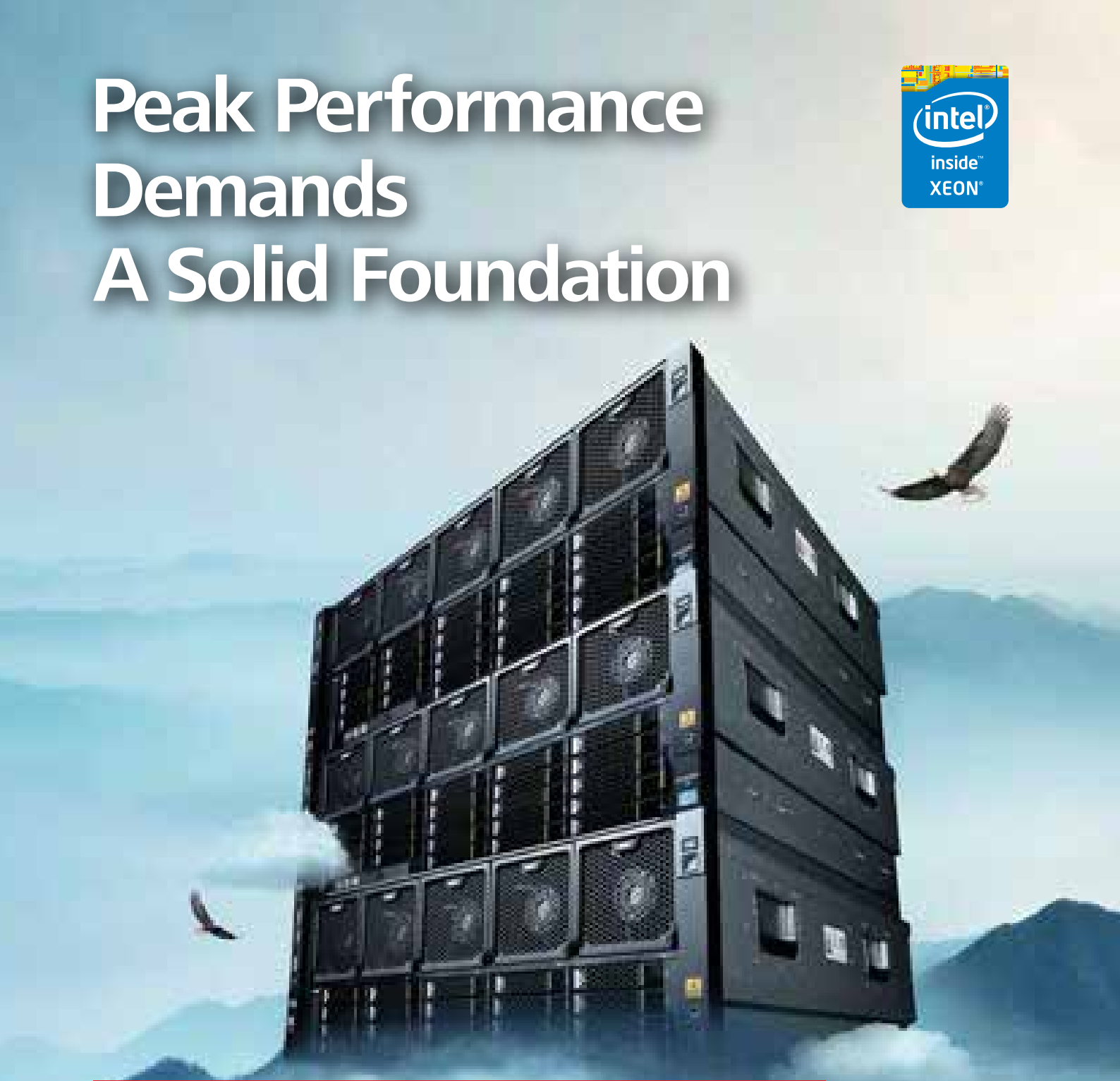
The next step is to do the product development. "Write down the value proposition; build a roadmap with themes, outcomes and features; include some delighters and make sure it features simplicity, extensibility and re-use."

Next up is to iterate features. "Manage risk through small batches, choose languages and tools that do the job, and ignore scale," says Jacob. "When theory comes up, refocus on execution. Demonstrate every week to the whole company. Use source control. Have a bug database. Use one workflow for change. Let someone else see everything. Remember to do continuous integration and one test at a time. Use scalable systems design. When you operate, focus on availability, collect metrics, plan for capacity, alert on what is actionable, run incident response and hold post mortems."

Delivery involves doing a final demonstration and holding a retrospective.

"What's important about DevOps is that you need to find your own way," Jacob says. ■

Peak Performance Demands A Solid Foundation



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Innovative ICT Building a Better Connected World

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Make space for **innovation** But protect users

By Kevin McKerr

As more and more South Africans rely on their mobile devices for everyday activities, the variety and impact of cybersecurity threats will continue to grow

A recent National Science and Technology Forum Discussion reported that South Africa has the third-highest prevalence of cybercrime in the world after Russia and China.

Consumer mobile transactions are not the only high-value target for cybercriminals and hackers; employees' personal mobile devices, increasingly used to access sensitive documents or internal networks are also a prime target for cyber-espionage and data theft.

For most South African businesses and government entities, the most vulnerable point of "going mobile" is the individual – whether employee, customer, or board member. Enterprises already have robust back-end systems and networks that can withstand even sophisticated cyber-security threats.

But if you trust your employees when they're at their desktop, why can't you trust them when using a mobile device, connecting to the same systems as before?

The challenge for the CIO is to manage the new risks posed by mobile devices – and the individuals using them – creating new connections to secure systems and data.

Safe haven

By framing their mobile security efforts around protecting these individuals, enterprise leaders can create a safe space for mobile innovation.

There is a strong correlation between fears about mobile security and the wholehearted adoption of mobile's potential. According to IDC, 54% of CIOs in Africa and the Middle East see devices and network security as a major challenge, and only 28% have allowed mobile enablement of their enterprise apps.

At the same time, IBM is working with a number of large banks in South Africa and

Telco

The region's telcos are perhaps the greatest beneficiaries of the mobile boom – but they need to invest in better customer service and enterprise app capabilities to retain their edge.

Major regional telcos like Airtel and Surfline are partnering with IBM to boost their responsiveness, including through cloud infrastructure, and social customer-care apps.

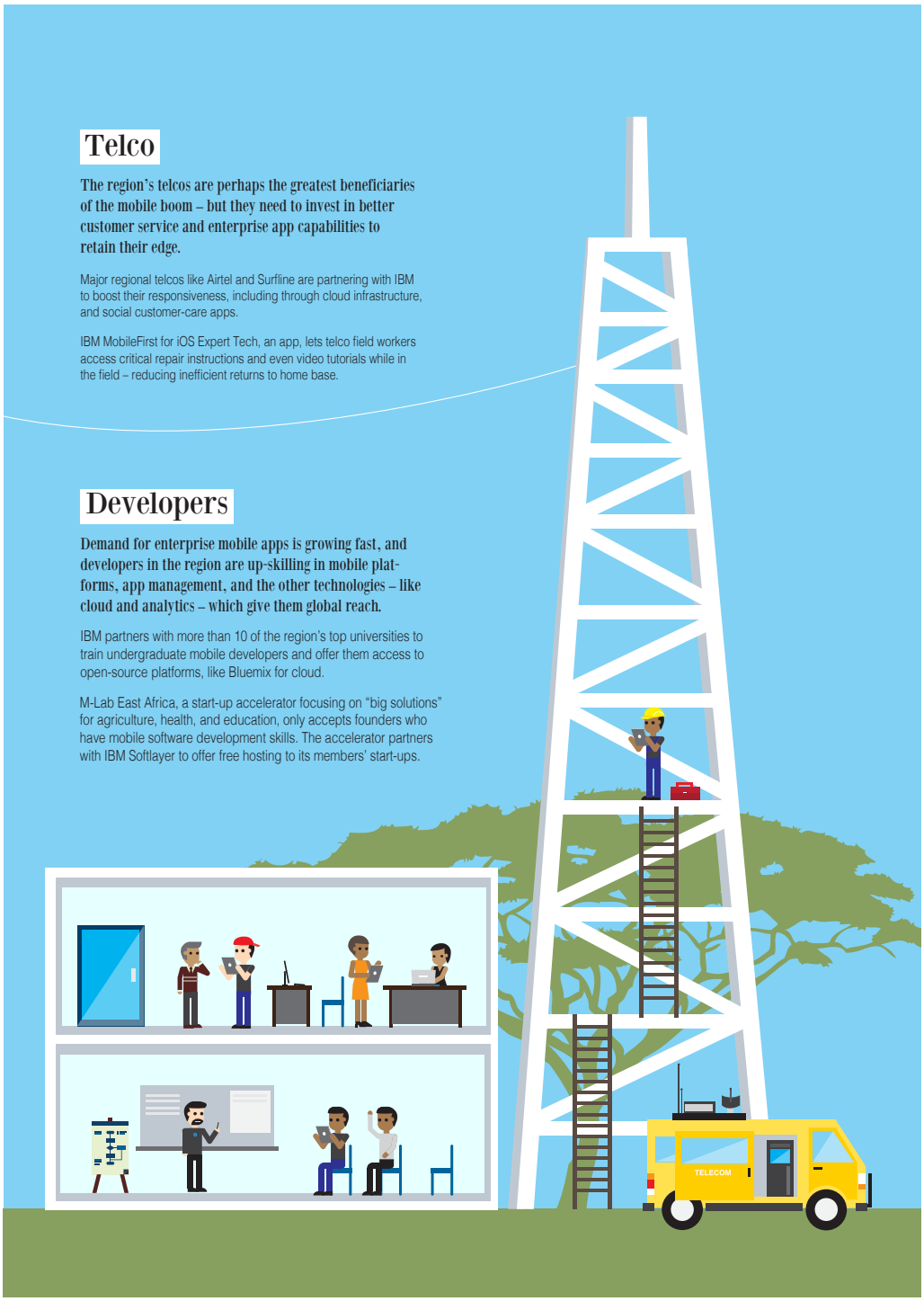
IBM MobileFirst for iOS Expert Tech, an app, lets telco field workers access critical repair instructions and even video tutorials while in the field – reducing inefficient returns to home base.

Developers

Demand for enterprise mobile apps is growing fast, and developers in the region are up-skilling in mobile platforms, app management, and the other technologies – like cloud and analytics – which give them global reach.

IBM partners with more than 10 of the region's top universities to train undergraduate mobile developers and offer them access to open-source platforms, like Bluemix for cloud.

M-Lab East Africa, a start-up accelerator focusing on "big solutions" for agriculture, health, and education, only accepts founders who have mobile software development skills. The accelerator partners with IBM Softlayer to offer free hosting to its members' start-ups.



Africa which now use the enhanced security of their mobile banking platforms as a key differentiator for customers.

And being in the field creates opportunities for exponential process and efficiency benefits.

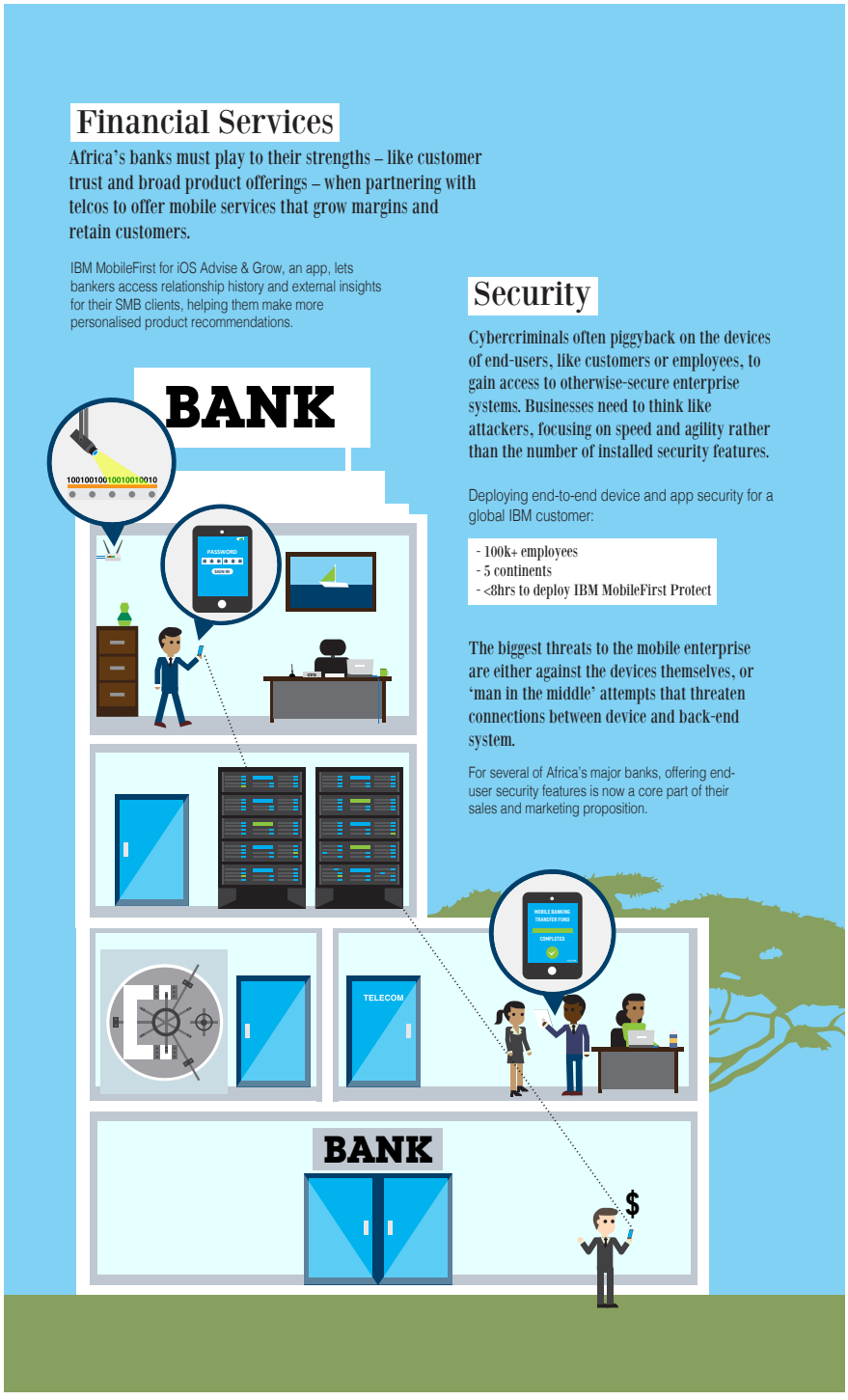
During Hurricane Katrina, where insurance agents were able to use mobile apps to take pictures for, record, and submit claims from the disaster zone – allowing them to process more than a hundred times the typical number of claims per day, when customers needed them the most.

Only when enterprises secure their people's devices, and how they communicate with apps and back-end systems, will they be able to turn mobile into a force majeure for customer engagement and competitive differentiation.

How can they do so?

Visibility, resistance, and happy end-users

Organisations can learn from the struggles of their overseas counterparts in the following three areas:



- Visibility, or understanding the devices and entry points now accessing corporate data and networks, is a critical first stage to addressing potential threats – the lack of which has led to "shadow IT" becoming endemic amongst organisations across mature markets. Africa's IT leaders can avoid the threat of the unknown by investing in systems monitoring and intelligence dashboards. But they also need to determine how much risk – and therefore how much visibility – they need, depending on the mobile approach they wish to take. A BYOD policy for employees, for example, requires a different strategy to one involving corporate-approved devices.
- Resistance involves ensuring that data and connections (such as between apps and databases) are hardened against breaches. Visibility across data and connectivity can help cybersecurity teams "predict" where certain information will go, and implement the necessary measures (such as encryption or restricted access privileges). The focus for IT leaders should be mobile connections, as these are the points where secure data can leak or systems be exposed.
- User experience goes beyond the app interface and must be seamless at every stage of the individual's journey. Mobile security processes which create friction for users will be circumvented or ignored, potentially leading to even riskier behaviours and device usage in the organisation.

Approaching mobile security should not just be in terms of volume ("we have x number of defences"), but from the perspective of threat authors themselves. A fragmented "piece by piece" adoption of mobile security platforms can generate incompatibilities and conflicts which themselves open up new vulnerabilities to malicious actors.

Instead, business leaders can tackle mobile security with an ERP-like approach, deploying integrated or modular solutions which overlap multiple layers of security and threat-awareness for mobile users.

IBM itself only lets employees access data via mobile devices through a unique user profile (generated by its own MaaS360

solution); provides secure apps for mail, collaboration, and other typical functions; and restricts users to opening files within secure browser windows. This approach applies to every employee, in every country where IBM operates – a good example of thinking "risk" instead of just "features" for mobile security.

Major dividends

Perhaps the most important goal of mobile security for enterprises is that it lets business leaders answer the question: "what does the mobile device really let us do?" Once risk is successfully managed, business managers can turn their attention to mobile collaboration, CRM, learning and other functions that skew more comfortably to how employees want to access corporate resources.

Enterprise mobile apps will boost efficiency in our core industries, like manufacturing and mining, by allowing employees to complete office tasks without leaving the field – like IBM and Apple's Expert Tech app, which lets telco technicians schedule, diagnose and fix repair tickets using information from their iOS devices.

These innovations will determine Africa's leaders in markets where consumers are accustomed to not just mobile apps, but faster, higher-quality, and more efficient service overall. To deliver that sort of experience and empower their employees, the continent's business leaders will have to put security at the foundation of their efforts to innovatively and sustainably "go mobile".

As more and more South Africans rely on their mobile devices for everyday activities, the variety and impact of cybersecurity threats will continue to grow. ■

Kevin McKerr is security sales leader for IBM South Africa

Health

Mobile apps can help speed up healthcare processes, all the way from diagnosis to containment of wide-scale pandemics.

The founders of MedAfrica, a Kenyan self-diagnosis app, have plans for it to one day draw on Ministry of Health data about outbreaks and drug counterfeiting in its advice to patients.

Government

Citizens and Public Sector employees find it easier to engage with government services and get important public information via their mobile devices.

Nairobi commuters get SMS and in-app updates on road conditions and alternate route suggestions, thanks to IBM's 'Twende Twende'* system which uses network analysis to predict traffic where data feeds aren't available. IBM's researchers hope to one day incorporate data about public safety, weather, and road works into the app.

*meaning 'let's go' in Swahili.

ZEBRA

BUILT FOR PURPOSE BUSINESS PRINTING FROM ZEBRA

*By **Kevin Norton**, Director Mobility Solutions at WestconGroup Southern Africa*

Not all printers are created equal however, their use in business is as essential as coffee is to the pause area. Built-for-purpose printing solutions are a critical part of any organisation – but they need to be robust, durable and most importantly reliable.

It is against this backdrop that WestconGroup Southern Africa continues to partner with Zebra solutions to bring resellers the most comprehensive range of business printers, including: barcode printers, desktop printers, industrial printers, card printers, RFID printers, kiosk printers and industrial PAX print engines.

But as much as each and every one of these printers has its own role to play in business, they are more than just a printing solution. As they are built from within the Zebra stable many come coupled with technologies that make them very much a part of the wired digital and connected world in which we live today.

So if you are a retailer needing to print barcodes on the fly, an event management organisation that needs to print labels, a manufacturing hub that needs to print an RFID tag, want to print till slips, large volumes of asset tracking tags, or want to improve warehouse management, then Zebra has a printer that will undoubtedly meet these needs.

But why Zebra? Today Zebra is the natural home for all of your business mobility and data management needs. The company supports and brings to market an extensive suite of solutions that cover hardware, software, supplies, services as well as the aforementioned printing solutions. These integrated solutions work together to allow you to improve the customer experience as well as make data management a lot more manageable for your organisation.

“But why Zebra? Today Zebra is the natural home for all of your business mobility and data management needs.”

At WestconGroup Southern Africa we focus on delivering Zebra solutions that are tailored to your distinctive business needs. We won’t just sell you a printer, but will sell you the experience of a team that boasts a collective 50 years of working with Zebra and the technical and support skills to back this up. As one of the first companies to support Zebra in the local market we don’t only understand the technology and how it works, but also how the mobility and wireless solutions from the company can help you drive innovation and derive the desired ROI from the Zebra technologies you elect to deploy in your customer’s organisation.

With a full services team at our disposal we can help our resellers rapidly deploy and skill customers in the use of their Zebra solutions. To this end our staging facilities are the perfect place to set up and test your Zebra environment to ensure rapid roll out of your printers in your stores, your warehouse, your depots or your business. In addition, our global footprint through our parent company the WestconGroup allows us to tap into an extensive network of logistics, geographical support services and value-added benefits, all that underpins why you should partner with WestconGroup.

If your customer needs printing solutions that are mobile, industrial, built-for-purpose as well as cost effective, and can support data management across the full business value chain? Then call WestconGroup today to discuss the full scope of Zebra printers available.

For more information on our Zebra printing suites or to become a Zebra reseller contact Kevin Norton on +27 31 512 4016 or send an email to kevin.norton@westcon.com.

The **vicious cycle** of **cheap drugs**

By Rhys Evans

Drug abuse in South Africa, as in many countries all over the world, has been an issue for years. However, the number of different types of drugs available has grown dramatically, at a variety of price points, and cheap recreational drugs are now easier to come by than ever before.

Drugs have essentially become more affordable than alcohol, giving rise to increasing levels of abuse and addiction. For employers and businesses, this can have serious negative consequences, as drug abuse not only affects home lives but work performance as well, not to mention the negative impact on health and safety.

Education is a vital component of helping to curb drug abuse – however, it is often not sufficient in isolation.

Implementing stringent and fair drug testing policies and leveraging the latest equipment for testing, which is capable of detecting these new, cheaper drugs, is essential.

This can help organisations to identify employees with problems and take the necessary action to assist them and ensure compliance with necessary health and safety regulations.

The local drug industry is not new yet it initially revolved mainly around cannabis, as this is easy to grow and accessible.

It is only in the 1980s and 1990s that other drugs such as cocaine, methamphetamines and heroin began to emerge.

Cocaine usage, however, has always been limited to higher income groups, as it cannot be manufactured locally and must be smuggled through customs, which significantly raises the price.

Amphetamines such as speed and ecstasy became popular in the 1990s among party-goers.

Heroin also became more available in the 1990s; however, it was almost always used intravenously and therefore never gained widespread use due to a prevalent fear of needles among many people.

While all of these drugs are addictive and cause social problems, addiction and work-related issues such as illness, absenteeism, mood swings and more, it is only recently with the emergence of cheap street drugs that drug abuse has become a real challenge for the majority of South Africans.

Mandrax, tik and whoonga

Drugs such as mandrax and tik are commonly used in the Western Cape, and crystal meth is growing in popularity among the party set in Gauteng, who snort it as a cheaper alternative to cocaine.

In addition, a new drug nicknamed nyaope or whoonga, a mixture of low-grade heroin, rat poison, detergents – and sometimes anti-retrovirals (ARVs) – is a growing problem in the townships of South Africa.

This drug is cheap and easy to make as it is derived from readily available substances, is highly addictive, and the side effects are truly horrendous. This growing problem is affecting more and more South Africans at home and in their places of work.

Drugs are often used as a coping mechanism for those who are stressed, unhappy or not dealing with the pressure of their everyday lives.

In addition, in industries such as farming and construction, drug usage can result from boredom and workers being away from their families for extended periods of time.

Whatever the reason, the availability and low price of recreational drugs presents a challenge for many organisations. As people become increasingly addicted to a substance, they often spend a large portion of their income on it, and cannot support themselves or their families.

They also often stop eating and do not sleep, so they lose weight and their health and concentration levels decline. Their work performance usually suffers, absenteeism increases, and ultimately they are unable to perform their jobs effectively.

Towards a drug-free workplace

Ensuring a drug-free workplace helps organisations to improve safety, decrease risk, comply with health and safe regulations, improve productivity and employee performance, and curb a growing problem in South Africa.

Education is a large component of dealing with drug abuse. Many users of drugs are unaware of the implications and effects of drugs, as well as how to go about getting help once they realise they have a problem.

However, organisations need to also implement drug policies as well as testing procedures to monitor employees for drug usage. This requires the use of the latest equipment to ensure fast, accurate and minimally-invasive testing.

With regard to testing equipment, a number of different solutions are available Urine testing is a cost effective option that comes in a number of different forms, including single and multi-panel dip tests, cassette tests where a pipette is used to drop samples for testing on to the tests and integrated cup tests, which incorporate the test panel into the sample cup.

Urine testing, however, requires special consideration, such as the need for private bathrooms, and the requirement for testers to be the same gender as those being tested.

Saliva drug testing

In environments where this is not possible, saliva drug testing may be preferable. Saliva testing uses a swab to produce results in a matter of minutes, and can be used to screen for a panel of five common illegal substances including heroin, cocaine, marijuana and methamphetamines.

In addition to urine and saliva testing, test kits are also available that enable the testing of solid substances for the presence of drugs. Using one of these testing options can benefit organisations by assisting them to enforce drug-free workplaces.

Drug abuse is a growing problem in South Africa, and it affects both work and home life for those caught in its vicious cycle.

Employers should implement educational practices as well as testing policies and procedures to help curb drug abuse in the workplace. Not only is this a health and safety requirement, it can also benefit them by improving productivity and employee health. ■

Rhys Evans is a director at ALCO-Safe

Make a successful workplace transformation

By Philip Gregory

Workplace change can be hard for the most loyal of employees. However, it's clear that both our workplaces – and our mindsets around how we work – need to continually evolve to align with dynamic business needs and technology developments. This can make for uncomfortable situations for employees such as a change of office location, a move to desk-sharing and/or the introduction of new technologies or work practices.

The key challenge for those managing workplace change is how to engage, motivate and inspire a workforce who may be apprehensive, cynical or resistant. Here are seven steps to overcome resistance to workplace change.

Recognise that resistance is good: it shows people are taking notice and listening

While people might not like what they hear and react in a negative manner, it's positive that they are not ignoring change or in denial. This is an important first step on the change journey.

A considered response to resistance can convert negative emotion into positive energy and new thinking. Resistance also provides important feedback to help validate that you're changing the right things.

Be aware that resistance is not always obvious: it can be passive as well as active. Passive resistance is harder to identify as people sometimes hide their true feelings – for example, when they're uncomfortable challenging you face-to-face, or in a group situation. Whichever situation you may find yourself in, don't be surprised or de-railed: anticipate and plan for resistance.

Secure credible senior sponsors: link workplace changes to wider business goals

The ability to articulate how the workplace influences organisational goals helps secure the broader senior-level attention and the support a change program needs to succeed.

Identify where the strongest influence lies: workforce analysis pays off

Analysis helps you recognise the positive influencers you can nurture into a network of helpers and change champions; identify the negative people you can't afford to ignore and put their concerns in perspective.

Generally speaking, you can positively influence 75% of the population by focusing on just 25%.

If you have a small enough workforce - say, 20 people – you can put names in the boxes and make strategic choices around who to talk to about what. Remember, champions and role models are not necessarily always senior figures in the organisation: sometimes your most powerful champions are ex-resistors.

Communication breeds engagement: help employees understand the rationale for change

Successful change is not necessarily about employees getting what they want, rather persuading them to want what they get. Helping employees understand the rationale – how changes impact and benefit them – is key to securing their acceptance, and ultimately ownership, of change. There will be a spectrum of perspectives, concerns and interests among the workforce, as well as preferences around how information is provided.

You need to carefully time and plan communications, using a range of creative methods and media to engage people at the right time. It's worth remembering how we handle and manage change outside work and applying similar common sense principles to the workplace scenario.

One of the best ways to tackle resistance to change is to simply talk to people about it – face-to-face communication should always be a key component of any programme. In addition, introducing change in measured doses – even creating a sense of fun and excitement – can go a long way to grabbing attention in a busy world.

Do your homework: make your change programme appropriate and relevant

You wouldn't expect a doctor to prescribe a cure without initial investigation – the same principles apply to change management.

Make sure you understand the full context of change and the mood of the workforce before implementing your change programme. There may, for example, be important history such as previously failed change projects or recent redundancy announcements you need to take into account before deciding on an approach.

Your homework, or pre-work, can also help establish valuable benchmarks - like levels of awareness and appetite for change – to measure progress and success. Use it as an opportunity to check if the desired change and timeframe is realistic. Better to adjust programmes at the outset than about-turn midway.

Create a structured and flexible change and communications program: pace the delivery of information

Ensure your communication, preparation and support activities recognise employees'

change journey. Create content that engages and involves them in ways that allow them to help shape the future of their workplace – this will increase their investment in its transformation.

Be prepared to listen and adapt the change program as you go. This may mean doing more, less or even different actions – the last thing you want is for people to feel patronised, isolated or ignored. For example, you might find an initial approach needs to focus more on the way people work and use their new working environment than the physical design of space.

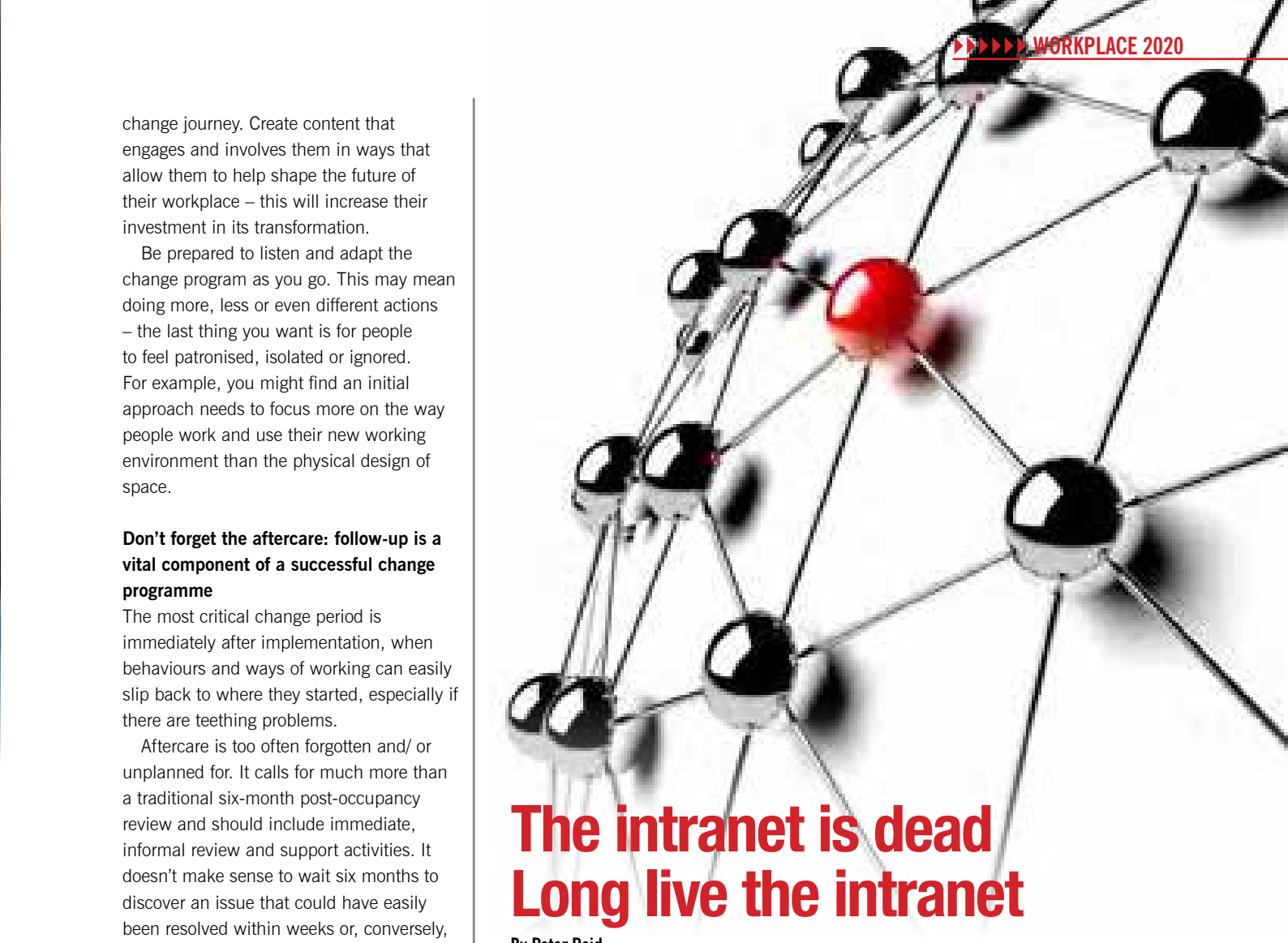
Don't forget the aftercare: follow-up is a vital component of a successful change programme

The most critical change period is immediately after implementation, when behaviours and ways of working can easily slip back to where they started, especially if there are teething problems.

Aftercare is too often forgotten and/ or unplanned for. It calls for much more than a traditional six-month post-occupancy review and should include immediate, informal review and support activities. It doesn't make sense to wait six months to discover an issue that could have easily been resolved within weeks or, conversely, an opportunity or good practice that could have been shared and nurtured early on.

The key takeaway is to view change as a journey, not a destination. In the world of work, the adage that "change is constant" has never been truer. It is this mindset that will see resistance to change a thing of the past.

Philip Gregory is senior regional executive at Johnson Controls GWS, Middle East & Africa



The intranet is dead Long live the intranet

By Peter Reid

The word "intranet" tends to bring to mind boring internal communications sites, used mainly by HR and marketing to disseminate documents and newsletters.

This traditionally push strategy has relegated intranets to the backburner for many organisations. However, as the world and the workplace have become increasingly social, the intranet is undergoing an evolution into a collaboration space for the sharing of content, ideas and skills.

The intranet of the future will change the way people use the tool, focusing on design and the user experience (UX), and creating an almost "app-like" interface that engages employees through interaction and interactivity.

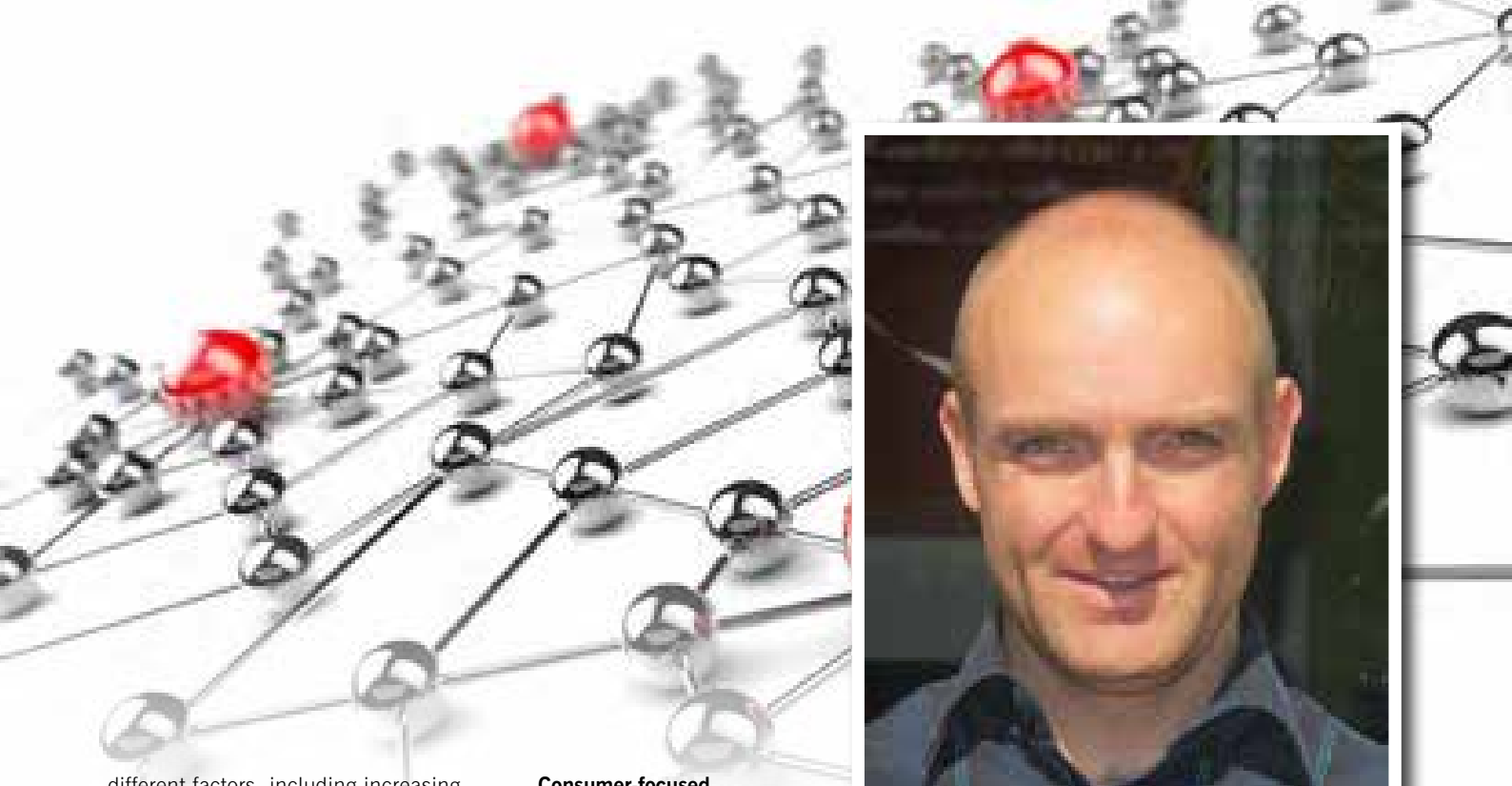
In order to cater to the needs of a changing workforce, the way intranets are used needs to change as well. Employees today demand a rich user experience that enables them to communicate, collaborate, share ideas, gain access to expert skills and more. This is a complete shift from the push strategy of the traditional intranet to a pull strategy, creating an intranet that makes people want to use it.

The focus of the intranet of the future needs to be the user, not the CEO, and thus the design and the user experience are of the utmost importance. Departmental intranets have also become out-dated – the intranet should be a centralised portal for all internal organisational communications.

Ultimately, the intranet should be a self-service portal that provides convenience for users, allowing them to log time, apply for leave, find relevant corporate information, collaborate on tasks and more.

Gen Y and Millennials

In future, the intranet will need to cater to the requirements of Gen Y and Millennial users – those who have grown up using sophisticated mobile and social communications tools. This shift is driven by a number of



Peter Reid

different factors, including increasing consumerisation and the demand for a consistent experience on personal and work-related devices.

Ultimately, users want access to a friendly experience, not simply a functional one, which not only requires a focus on UX, but also a deep understanding of the users and their needs, wants and requirements.

One of the biggest evolutions of the intranet is the increase in social features, such as mobile chat and instant messaging services. Social tools such as tagging, sharing and liking content are part of creating the user experience, and are fast becoming standard features in many business applications.

The intranet should be no different. In addition, mobility needs to be supported through responsive design and a "mobile first" development ethos, while ensuring secure access from various end-point devices.

As previously mentioned, the intranet of the future needs to have an emphasis on design and UX. The key toward ensuring user adoption of intranets is to make the interface and the experience familiar – incorporating social elements, elements of the Web, and the ease of use and intuitive functionality of apps are all essential.

This should include more sophisticated search and filtering. Consumers are used to the Google interface, and intranet search should provide similar functionality to enable users to find the content they require quickly and easily.

Consumer-focused

Intranets need to be consumer-focused, and the province of the users themselves. Employees, and not heads of department, should dictate the nature of the content and the future strategy of the intranet. The more social and interactive the intranet, the more likely it is to capture end users and their thoughts and result in engaged employees.

This concept of ideation enables crowdsourcing of ideas from employees, which is the springboard for driving innovation. Intranets should also include functionality for managing the innovation pipeline, allowing people to rank and endorse ideas, and trace their progress through the system.

Ensuring user adoption is as simple and as complicated as creating the right experience for users. If an intranet is designed correctly from a UX perspective, employees will enjoy using it. Buy-in and adoption rates will be higher, which increases opportunities for engaging and interacting with employees. A well-executed intranet gains loyalty from employees, helps to raise levels of employee satisfaction and trust, and helps to create a culture of innovation if driven by a strong leader.

An end user focus is critical in achieving this, and throughout the process of building an intranet it is necessary to involve as diverse a user group as possible.

This will ensure their ideas and wants are taken into account, and creates a sense of ownership and involvement once the product is rolled out.

An enjoyable experience

An agile approach is also essential. The intranet needs to be a work in progress, an evolving product, which, like apps, is constantly maintained and updated. This all ties back to the UX, which is impossible to get right without an intimate understanding of the user.

The success of an intranet can be judged by how happy people are to use it, whether it empowers them to do their jobs better or faster, whether they are saving time, or can connect with people to enable processes to be completed faster.

Functionality should be balanced with design, but ultimately if one aspect needs to be scaled back it should always be functionality. Without good design, users will not use the tool; however, additional functionality can always be developed and added at a later date.

The intranet should, at the end of the day, fit the way employees work, deliver what employees want and like, and be tailored to meet their needs and the maturity of the organisation. The intranet should give employees a tool that makes their lives and their jobs easier. A successful intranet is not an implemented one, but an adopted one that employees enjoy using. ■

Peter Reid is SharePoint solutions head at Intervate, a T-Systems company

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SAMSUNG
BUSINESS

Service management drives value from IT investment

By Edward Carbutt, executive director at Marval Africa

In today's world, IT no longer supports the business. IT is the business, and the business is IT. If you turn off IT, nobody will be able to do their job and the business will cease to function.

Despite this, however, IT is typically viewed as a black hole where money disappears and value is seldom realised.

Ultimately, investment in IT should drive the three pillars of competitive advantage, by enabling organisations to do things better, faster and cheaper.

The challenge is to manage IT effectively to ensure that value can be delivered from this often significant investment.

Having a stable and well-managed IT infrastructure is critical to the success of any business. Just a few seconds of downtime can end up costing organisations significant amounts of money. Further to this, downtime can result in unsatisfied customers, reputational damage and dips in revenue.

In addition, if the service delivered by IT is slow, inconsistent, unstable or otherwise poor, it impacts on a business' ability to function and can also interfere with an organisation's capability to grow and mature.

Businesses change along with market demands and as such, it stands to reason that IT should change too – it must become and remain aligned to the strategic objectives and initiatives of the business. Investment in IT must be supported by evidence to prove that this has resulted in benefits to the business such as satisfied customers, improved value and more productive staff.

The reality is that a stable, well-managed, IT infrastructure does not just happen by itself. It requires hard work, planning and a team effort, underpinned by effective IT service management (ITSM). This is achieved by blending the right people, processes, products and partners.

These four Ps are one of the foundations of the IT Infrastructure Library (ITIL), which in itself offers a pragmatic, flexible set of best practice guidelines for the delivery of ITSM. ITIL is essentially a documented set of proven processes and guidance that helps organisations manage their IT more effectively for consistent, proactive and accountable services.

The key is not only to deliver value, but to demonstrate this value to the business. ITSM built on the practices of ITIL helps organisations realise and prove the value of IT to the business.

- In the next issue, Carbutt will discuss the role of ITIL in the management of IT services, the need to audit ITSM against ISO20000 standards, and how these practices and standards support IT governance initiatives. ■

The **top** mistake in **ITSM**

Have you ever changed or amended the source code of an IT service management (ITSM) solution? Perhaps to add features and functions that weren't included in the "out-of-the-box" software?

If so, you may have complicated the link between what you've got and what the vendor will support. Now, consider that you may also have potentially dozens of integrations connecting your ITSM software with other ITSM tools. If over-customised, your solution will become fragile to touch and is likely to cause major disruptions across your business.

The key risk in over-customisation of your ITSM tool code is that you're more likely to get locked into your current version. Axios Systems' research, which engaged 250 senior IT professionals from over 100 leading organisations, identified the two fundamental service management challenges for 2015: 25% highlighted that they face significant internal barriers to adopting new service functionality such as service catalog and collaboration.

A further 26% highlighted their key challenge to improving performance is the introduction of a new service management product or significantly upgrading their current solution.

With outdated ITSM software comes the loss of agility.

So, what can you do to break the over-customisation habit? Ask yourself: "Do we really need this customisation?" Evaluate the pros and cons of your requirements versus increased application management overheads. Your strategy needs to ensure that today's changes will not limit your ability to drive wider innovations in the future.

If wide-scale customisation is not the key to sustainable innovation, then what is best practice?

Brian Kerr, senior managing consultant at Axios Systems comments: "While the ITIL framework provides the methodology for effectively managing IT service, it is fundamental that the selected tool enables complete control without the requirement for extensive recoding. To mitigate this risk, vendor selection is key. It is an absolute imperative that the tool provides granular configuration without users resorting to custom coding." ■

IT asset management critical for digitalisation

The continued surge in the number of obsolete IT assets is jeopardising both business and technology deliverables that are essential for an enterprise's success in digital transformation.

A new International Data Corporation (IDC) report, "IDC PeerScape: Practices for IT Asset Management", documents the five best practices for successful asset management being used by one highly visible world-class enterprise for the intersecting – yet transformational – demands of IT, security, and procurement. The practices address the emerging criticality of asset management to new 3rd Platform imperatives.

The new IDC PeerScape highlights a particular world-class enterprise that prioritised the implementation of an IT asset management (ITAM) process and toolset within the context of how attacks are able to approach data assets of large enterprises.

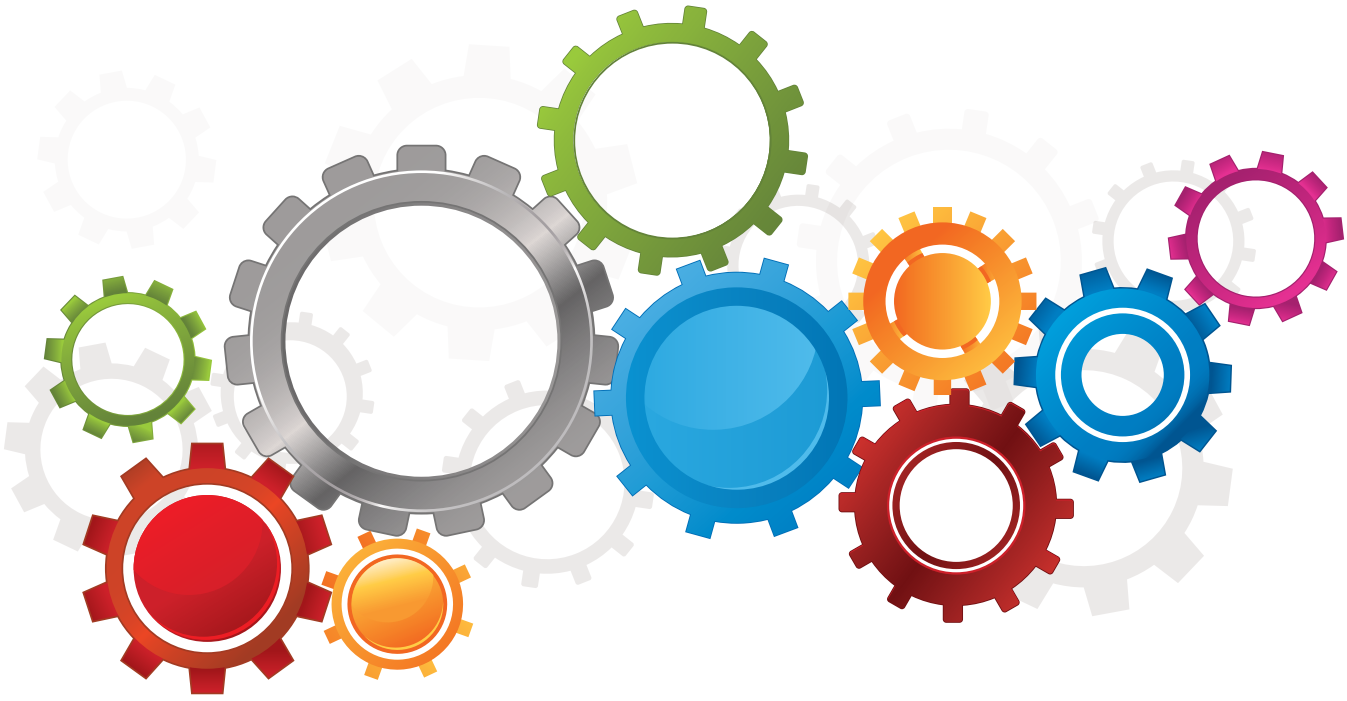
While the five ITAM practices highlighted are not obvious or self-evident to those initiating an ITAM effort for purposes of cybersecurity or application performance, this large enterprise identified these specific practices as critical to its long-term success in combating cyber-threats and application malfunction.

Validation of these practices has come in the form of multiple peer investigations by both government agencies and commercial enterprises, which have consistently stated that this global enterprise is at least one to two years ahead of the investigating the organisations' own ITAM initiatives. Interest in the solutions that this enterprise implemented to effectively connect ITAM to cyber-security continues to snowball.

"Our new IDC PeerScape offers actionable guidance to CIOs and other IT leaders in how to reduce the business risk and increase the critical knowledge of key applications that are associated with cyber-threats as well as resolve critical application downtime," says Bill Keyworth, vice-president of IDC's Research Network. "We believe today's technology leaders can benefit from having guidance on the practices and experiences of enterprises that have already undertaken some of the challenges of implementing ITAM solutions required by 3rd Platform capabilities."

IDC asserts that while cyber-security will be the key driver and the budget-enabling catalyst for funding such ITAM solutions, the enterprise will subsequently realize other outcomes and benefits dealing with financial IT management, life cycle management, software licensing, portfolio management, and configuration management – thereby enhancing the whole ITAM value proposition.

While this kind of initiative is often targeted by enterprise architecture strategies, IDC is finding that appropriate questions generated by cybersecurity threats will provide the impetus to create reliable data for the enterprise's IT assets. Subsequent leverage of effective ITAM within the 3rd Platform will enable levels of risk assessment, compliance, technology integration, and governance that were long thought of as improbable. ■



Teamwork **adds** to **cyber-resilience**

Organisations can be more effective in preventing and responding to cyber-attacks by ensuring effective collaboration between those responsible for cyber-resilience and IT service management (ITSM) teams.

This is one of the conclusions in a new white paper by Axelos Global Best Practice.

Despite the numerous overlaps between cyber-resilience and ITSM, many organisations manage them in independent silos, which results in unhelpful conflicts, according to **white paper author Stuart Rance**.

"Among the areas of significant overlap are business continuity management and incident management," Rance says. "In each of these areas it is essential that cyber resilience and ITSM work together to provide value to the business. If they are managed separately then this can lead to wasted resources, conflicting requirements and ultimately successful cyber-attacks."

In the white paper, "Cyber-resilience and ITSM: working together to secure the information your business relies on", Rance argues that there needs to be real collaboration between cyber-resilience and ITSM to ensure risks are properly managed.

"As part of a collaborative approach to cyber-resilience and ITSM, it is possible to design tools and processes that cut across organisational silos and deliver real value by helping to ensure that the organisation gets the greatest possible benefit from the information it owns."

He offers five tips to help ensure an organisation is getting the best possible value from cyber-resilience and ITSM:

- Learn about sources of best practice for cyber-resilience and ITSM: go out and learn about existing, proven best practices and standards – you don't need to start from a blank piece of paper;
- Ensure your management system covers the whole of the service lifecycle: don't forget about areas of the lifecycle which may be more abstract or require more thought, such as effective governance or continual improvement;
- Design integrated processes that support both cyber-resilience and ITSM: avoid multiple processes that do the same thing in areas like incident management, continuity management, change management and asset management;
- Define integrated end-to-end metrics that are focused on the needs of your customers: separate metrics for cyber-resilience and ITSM can encourage behaviours which are not joined up; and
- Encourage collaboration between your cyber-resilience and ITSM people: ensure true collaboration by defining integrated processes and metrics as part of a holistic management system that meets all your needs across the whole cyber-resilience lifecycle.

Nick Wilding, head of cyber-resilience at Axelos, comments: "Effective cyber-resilience must focus on aligning strategic priorities, service management tools, operational systems and architectures with ongoing training and involvement of all employees. Organisations which encourage greater collaboration between their cyber-resilience and ITSM teams have a greater chance of recognizing, responding to and recovering from cyber-attacks effectively.

"Organisations already using ITIL for service management will find that cyber-resilience can easily be integrated into this existing management systems, with cyber-resilience controls and management becoming an extension of existing business-as-usual processes." ■

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Why the **cloud** is the next **big leap** for **accounting software**

By Steven Cohen

Over the past 20 years, we've seen the business software market evolve at a rapid speed, moving from basic DOS-based solutions with text-based interfaces to rich and attractive graphical user interfaces.

Now we're seeing the next shift in the market as businesses start to transition away from running software on their own standalone PCs or servers towards accessing it online as a cloud service.

Cloud computing is essentially all about the move away from buying a software suite that you install on your computer towards accessing the software you need over the Internet and on a Web browser, wherever you are.

As a cloud user, your accounting data and applications are both reached through your browser – it makes business productivity as simple as using Facebook.

This trend – the shift towards computing in the cloud and software as a service (SaaS) – is revolutionising the way that

SMEs and bigger businesses alike use and pay for their software.

So what's behind the rise of the cloud as a deployment option for accounting software and other business solutions?

Maturing technology

Maturing technology is one major factor behind the growing adoption of the cloud. Although the idea of "hosted" applications is nothing new, it's only now that the bandwidth is fast, cheap and reliable enough to deliver a stable, affordable and responsive user experience for applications that are hosted in a service provider's data centre and accessed across the Internet.

Not only has the fixed-line Internet improved, but WiFi and cellular connections have become pervasive. What's more, today's Web browsers are also more suitable for accessing rich content online, allowing users to work on complex online applications and enjoy a smooth experience – all without the need to download any special software.

Devices such as smartphones and tablets are also playing a role in cloud adoption by giving people convenient and easy ways to access cloud services. And, with cloud technology having been widely adopted by consumers, the business world is following in its footsteps.

As a digital native generation comes into the workforce, it expects to use business IT resources online and on-demand in the same way as they use services such as Gmail and Dropbox.

Today, even business tools such as accounting applications are expected to be mobile, easy to use, and wrapped in an attractive interface.

Faster, cheaper, better

Having established that the technology to support the cloud is mature, why should a small business consider buying online accounting or payroll software rather than sticking with buying software licenses and running them on its own computers? Simply put, cloud solutions enable SMEs to simplify their IT environments, save money and achieve the flexibility to get more done, faster.

Though cost-savings – and the flexibility to pay for the software per user, per month – are often mentioned as key benefits of the cloud, there is far more to it than reducing costs.

Implementing cloud-based solutions also help the business to become more agile, to enable employees to work anywhere they have an Internet connection, and to access better quality systems than they could afford to pay for upfront.

Keeping pace with a changing world

For those that are more comfortable with desktop accounting software, "connected services" provide a bridge from the old world of desktop software to the new world of mobile and cloud computing.

These services can allow SMEs to automate more of the drudge work involved in business accounting, for example, making it simple to make online payments to suppliers straight out of the software's interface.

Another worthwhile feature is an automatic bank feeds function that automates the process of importing bank statements into the accounting system. ■

f **Steven Cohen** was recently appointed to head up Sage One AAMEA (Africa, Australia, Middle East and Asia)

SMEs take to the **cloud,** whether they know it or not

The uptake of cloud services in the small and medium enterprise (SME) sector has been growing steadily, but 2015 has seen businesses finally beginning to wake up to the benefits offered by services like online storage and backups.

The number of SMEs using cloud services in 2015 jumped by 10% – up to 39% – from 2014, according to **Arthur Goldstuck, MD of World Wide Worx and principal researcher for SME Survey 2015**.

"For the first time, we are seeing a real take-up of cloud services, which indicates that more and more SMEs are overcoming their natural apprehensions around the cloud and are instead starting to realise the benefits it can offer," he says.

"Of those surveyed, although only an additional 4,5% said they would definitely be using the cloud by next year, there are obvious clues that we can expect an even bigger jump in the numbers.

"In particular, a fifth of SMEs (19%) said their use of cloud next year will depend on business needs, and another third (35%) say they are currently unsure. We anticipate that at least a portion of these businesses will discover they either need or want the cloud. It is therefore logical to extrapolate a figure that suggests more than 50% of SMEs will be using the cloud by 2016."

In addition, Goldstuck explains that many SMEs are already using cloud services, without even knowing it. When the survey questioned respondents about whether they were using particular services, such as online e-mail, some 83% stated that they were doing so.

"Services like this could be referred to as the 'Invisible Cloud'; online e-mail is obviously a cloud-based service, yet the majority of SMEs clearly don't see it as such."

A further 47% of SMEs said that they made use of online backups, while 37% utilised online accounting, 27% used an online project management service and 25% had an online customer relationship management (CRM) solution.

This, says Goldstuck, is a clear indication that there is massive uptake and yet a lack of understanding among SMEs as to what constitutes the cloud.

"The disconnect in the figures between what SMEs consider to be cloud services and the actual cloud-based services that many of them are already using demonstrates that there is a lack of education about what the cloud really is and what services actually form part of it."

Clearly, discovering that many of the solutions they already use, such as Gmail and Microsoft OneDrive are part of the cloud, is a key aspect of the migration process. This is because, upon realising this, most SMEs are then prepared to go deeper into the cloud.

"While it is obvious that SMEs are becoming more technology-savvy and mature in the use of cloud – even when they don't know it is part of the cloud – for more significant uptake to occur, the cloud service providers need to play a role in educating SMEs more effectively around the topic," Goldstuck says.

"Ultimately, of course, the real driver will come not from whether they know certain solutions are cloud services or not. Instead, real uptake of cloud will be driven, as implied by the survey results, by selling specific applications to SMEs.

"If service providers are able to convince more SMEs to utilise specific solutions – like online backup, to protect against the increasing dangers posed by power failures, for example – it won't be long before they realise the benefits.

"This, in turn, will make them more predisposed to adopting other cloud services that could be equally beneficial," says Goldstuck. "The key is to market the applications within the cloud, not the cloud itself."

Ethel Nyembe, head of small enterprise at Standard Bank, agrees with this approach: "Cloud-based products can provide small and medium business owners with efficient, simple and cost-effective business management solutions, thus saving the enterprise time and money, which is vital for prosperity.

"For example, cloud-based HR applications are more economical than tailored inhouse systems, as they involve no upfront costs and are adaptable, thus giving the entrepreneur the time needed to focus on innovation."

Elaine Wang, Microsoft business unit manager at Rectron, adds: "While it is incredible to watch the uptake of cloud services skyrocketing due to the inherent benefits that it offers to SMEs, they should still consider all possible alternatives in deciding which solutions to implement as well as how to get it done.

"The results of the research indicates that there is a fuzzy line between consumer and commercial solutions. Therefore, SMEs need to ensure that they are taking full advantage of the security and features behind the commercial solutions, and are choosing the right partner to take them forward." ■

Do the **alternative energy** sums right

By Kevin Norris and Dave Smith

Given the current power challenges in South Africa, as well as a growing trend toward solutions for sustainable electricity, solar technology as a source of energy supply has become a hot topic, particularly for organisations wishing to reduce their reliance on utility power sources.

Rooftop solar photovoltaic (PV) plants can help organisations generate their own power, and using grid tie inverter systems enables them to feed excess generated power back to the utility for use elsewhere. However, despite the benefits of such systems, there are two common challenges that have emerged.

Firstly, PV plants are a costly investment, and the return on investment (ROI) has in the past taken many years to realise, although this is changing as the cost of installation reduces and electricity tariffs continue to increase. This makes obtaining funding for such systems difficult.

Secondly, there remain several issues with the connection of solar plants to the main grid, which has slowed the uptake of these solutions.

Addressing these challenges is key to harnessing the power of the sun as an alternate, sustainable energy source.

Grid tie solar systems are the simplest and most cost-effective method for utilising solar energy as a replacement for day-to-day power requirements. On a very basic level, the grid tie invertor converts the direct current (DC) power generated by solar panels into the alternating current (AC), and injects this AC current into the existing load. Any excess energy is then fed into the power distribution network. The inverter is also able to ensure that energy requirements are drawn from available solar power first, and only utilise utility supply should there be a solar shortfall.

This system does not necessarily require a battery for energy storage, although this will extend functionality, so the installation is very simple and efficient, and maintenance is low.

However, while the cost of manufacturing solar PV panels and grid tie inverters has reduced over the past few years, as a result of increased demand, greater economies of scale and technological advancements, solar remains a costly solution to implement. The high cost of raw materials and the high-tech conditions required for the manufacture of components keep these solutions out of reach of the average homeowner or business.


Dave Smith

Justifying this investment is often one of the biggest challenges to the implementation of solar power solutions, and obtaining loans and funding is typically a difficult sell. ROI takes a few years to realise, and the investment will only typically pay for itself within six to 10 years.

The rate of return is dependent on a number of factors, including the type of installation and the existing tariff with the utility.

However, what needs to be kept in mind is that solar PV systems have a predictable performance curve of 25 years and a usable life of 35 years.

In addition, using a grid tie inverter system, homeowners and businesses will one day be able to feed excess power back to the grid, either offsetting this against utilisation costs or selling this power to the utility provider. PV systems, therefore, should not be seen as a depreciating asset. They are, in fact, an asset that not only reduces current costs, but in the long run could be a significant income generator for the owner.

To quantify this value is a relatively simple mathematical exercise with the assistance of financial models. In 2015 the average cost of electricity per kilowatt-hour (kWh) is similar to the lifecycle levelised cost of energy (LLCE) of a typical grid tie system at around R1.00 per kWh. This means that, calculated over the complete guaranteed performance lifespan of the panels (approximately 25 years), the cost per kWh from a solar PV system will be similar to the municipal cost in 2015.

Going forward the cost of electricity from the utility is very likely to increase significantly year on year, while the cost of the installed PV system will remain at its installed price plus the minimal cost of maintenance. If you look at this over the next 10 years, your cost of solar generation would be around R1.00 per kWh, while the utility cost is forecast to be as high as R3.50 per kWh.

This same trend is likely to continue over the lifespan of the solar PV system. If you project these increases over the 25-year period, the cost difference between now and then would be significant. Effectively, within this period, the solar PV solution could still be generating electricity at R1.00 per kWh, whereas by that stage the cost of utility power will doubtless have increased many times.

It is these future differences in the cost of energy between the utility costs and the fixed solar PV cost that should be recognised as part of the long-term sustainability of owning such an asset.

Additionally, in most cases the asset is attached to a building and would result in improved valuation of the building. Not only does this have a positive financial implication, it also has an environmental implication, especially when one considers the carbon tax that will be levied as of 2016. The only way to negate the carbon tax is to either recycle or produce "Green kWh" from a renewable source like solar PV.

In order to drive adoption of solar PV solutions, it is necessary for financial institutions to recognise their value and assist businesses and homeowners with funding these systems. Forward-thinking financial institutions should look to leverage the security of a loan for solar PV power against the asset itself, as it will pay for itself many times over in years to come. The asset could also be recognised as part of the building itself and be financed utilising an extension of the building bond. In addition, government needs to come on board by assisting financial institutions with tax rebates for their efforts in financing solar PV systems.

This is sound strategy, as by funding these systems, financial institutions are contributing to the overall reduction in carbon output and, more importantly, helping to resolving the country's current energy shortages.

In addition to funding, connecting to the utility remains a challenge. One of the most pressing issues is the nature of pure solar solutions (without energy storage capability), in that they are only able to produce energy during daylight hours, and the energy must be used or dumped. For the majority of residential applications where nobody is at home during the day, this generated power will be wasted if a solution to feed this power back into the grid cannot be resolved. Connection codes therefore need to be finalised, and metering for two-way energy flow needs to be implemented.

It is also important to find a solution to the problem of optimising the use of all renewable energy generated to the advantage of both the end user and the utility providers.

The concept of net metering, whereby users sell their excess renewable energy back to the utility for credit and utilise these credits when the renewable source experiences shortfall (such as at night when there is no sun to power solar PV systems) is one that has great potential to benefit all parties concerned. For most residential applications, this form of energy trading works well. Some utilities may limit the amount of energy you can sell back for credits to the amount of utility energy used (so if you use 2 000 kWh per month, than you may only sell back a maximum of 2 000 kWh per month).

Another system would be to annualise this amount, enabling owners to make better use of the credits throughout the year, such as in winter where generation may not match overall consumption.


Kevin Norris

Theoretically, users could manage consumption and generation of energy to a zero balance and not have to spend a cent on energy from the utility for the year. This idea in principle is appealing, particularly for consumers and business – however for utilities this could cause problems. If renewable energy customers are not paying what they used to pay for electricity, but rather supplementing their own power generation with utility power, how does the utility find revenue to pay for the maintenance of the generation, transmission and distribution network the entire system uses? Feed in tariffs have been suggested as one solution to this problem, whereby the utility purchases the excess energy from providers, while users still purchase utility power, and there is no obligation to consume at the same rate as you sell energy.

Regardless of the challenges involved, solar PV remains the most viable and cost-effective alternate energy source for South Africa, a country that experiences significant hours of sunshine for much of the year in the majority of its regions. If these problems can be satisfactorily resolved and solar becomes a mainstream power generation source, not just for the utility but for business and homeowners too, the currently bleak power prospects of South Africa may have a brighter future after all. ■

Kevin Norris is a consulting solutions architect: renewable energy at The Jasco Group; **Dave Smith** is MD: renewable energy at The Jasco Group

Reduce complexity with hyperconvergence

Move over convergence; IT is all about hyper-convergence nowadays. But what is hyper-convergence and why should you care? Kathy Gibson looked for some answers

The IT industry is one of massive change, with new technologies and products coming to market all the time.

This has led to a tremendous amount of complexity within the data centre – and the products developed to help administrators to manage this complexity often add to it.

Christo Briedenhann, regional director at Simplivity, explains that the move to hyperconvergence ushers in a new and disruptive way of doing IT.

Boiling it down to its most basic, he explains that hyperconvergence brings all storage, virtualisation and processing power back into one box, helping to simplify the virtualised infrastructure.

"Our IT budgets are going round in circles, with servers, storage and maintenance; and we keep adding new resources to the existing systems," he points out.

"IT needs to support the business – especially when budgets are tight – and companies are under pressure to reach out to new markets. In South Africa there are additional pressures on IT such as uncertain power supply.

"The reality is that with all the challenges of having to support the business in new ventures – in a tough environment - 80% of IT budgets are flat or down; and only 20% of budgets are available for the innovation and new projects that can help to drive the business," Briedenhann says.

"So after spending so much money, with data centres filled with amazing technology, users are turning to the cloud to get what they need. They are using things like Dropbox, Amazon Web Services, Google Docs and OneDrive – and often these are not approved by the IT department."

The problem, he explains, is that technology simply can't keep up with data growth. "Data is literally exploding – by 2020 there will be 44 zetabytes of data being used. Even if storage capacity grows, we can't read and write that fast anymore."

Virtualisation burst on the scene some years ago to help companies maximise their data centre investments, but Briedenhann points out that, in many instances, it hasn't really made the CIO's job any easier. "In fact, virtualisation makes IT more difficult to manage."

The industry's classic answer is to develop new technology, and bring new products to market. Currently, there's a lot of focus on deduplication, compressing and optimising data.

"We believe that data storage is creating a big problem," Briedenhann says. "And to overcome the problem we fill up our data centres with more products and technologies – all of which need skills, rack space and cooling. And this leads to massive complexity."

"Hyperconverged Infrastructure for Dummies" defines hyperconvergence at its highest level as a way to enable cloud-like economics and scale without compromising the data centre's performance, reliability and availability.

Hyperconverged infrastructure, the book states, provides significant benefits;

- Data efficiency – reducing storage, bandwidth and IOPS requirements;
- Elasticity – it's easier to scale out/in resources as required by business demands;
- VM-centricity – the virtual machine (VM) or workload is the cornerstone of enterprise IT;
- Data protection – it's key that data can be restored in the event of loss or


Christo Briedenhann

corruption and this is made easier with hyperconvergence;
- VM mobility – greater application/ workload mobility is enabled;
- High availability – better availability than in legacy systems is enabled; and
- Cost efficiency – a sustainable step-based model eliminates waste.

So why does hyperconvergence matter? "It lets businesses get to market faster," Breidenhann explains. "Data centres can be deployed or moved quickly, while backup and other functions can be vastly sped up. Performance will increase; and the cost of management reduced while being made easier.

"Using hyperconvergence, companies can reduce costs; and they can increase operational efficiency, spending time on strategy and innovation instead of just running technology."

Hyperconvergence is what you get when you've successfully implemented a software-defined data centre. Because it's based on software it gives companies flexibility and agility from their IT resources.

It gives organisations a cloud-like experience, with faster time to value and lower total cost of ownership, but lets the IT department keep control of performance, high availability and reliability.

"Hyperconverged Infrastructure for Dummies" outlines 10 things that hyperconvergence can do for companies:
- Software focus – it's flexible because new features can be added without ripping and replacing infrastructure;
- Use of commodity x86 hardware – this lowers the cost and means that IT departments can allow for failover;
- Centralised systems and management – compute, storage, backup to disk, cloud gateway functionality and more are combined in a single shared resource pool with hypervisor technology, so they can be managed across individual nodes as a single federated system;
- Enhanced agility – all resouces in all physical data centres reside under a single administrative umbrella, so it's easy to migrate workloads;
- Scalability and efficiency – a smaller step size means more efficient usage of resources;
- Low cost – the cost of entry of hyperconverged infrastructure is much less that legacy infrastructure;
- Easy automation – with combined resouces and centralised management, administration functionality includes scheduling opportunities and scripting options;
- Focus on VMs – policy revolves around VMs, along with management options like data protection;
- Shared resouces – many kinds of applications can be deployed in a single shared resource pool, allowing for efficient use of resources for improved capacity and performance;
- Data protection – hyperconvergence helps IT organisations to do comprehensive back-up and recovery, with affordable disaster recovery; efficient protection without data rehydration and re-deduplication; and a single centralised console that allows IT to respond quickly.

The path to hyperconvergence, Briedenhann says, lies in proving its value to solve specific problems, then transforming the data centre to improve operational efficiency; and finally revolutionising IT with TCO savings. ■

Lean IT drives operational efficiency

In many ways, IT has failed to use technology to provide maximum efficiency and return on investment (ROI).

Manufacturing plants, says Hamut Pascha, director: global financial services at Simplivity EMEA, are better models of automation and efficiency. "Plants tend to be highly flexibility, with higher agility and less costs. This is because they have introduced Lean management and technical innovations.

"They are highly automated, less labour intensive, more flexible and agile. They respond to business requirements, and shift resources for higher quality."

In the data centre, however, more components mean it has become more complex. "So you need more skilled people to understand and manage these components

"This is one of the biggest challenges for CIOs. And they are under increasing pressure, which gets worse with each economic crisis."

However, CIOs can start using Lean IT in the data centre, Pascha says. "ROI is the translation of technical advantage into economic benefits. In the IT infrastructure, this means you want to avoid capital spend on technology refresh of servers and storage.

"For IT operations, you need to avoid backup faults, saving time saving on disaster recover, and lowering the opportunity cost.

"The business implications include reduced downtime (planned and unplanned), and less IT user waiting time. With higher performance, IT can give back productivity time."

Pascha points out that a Lean approach could help CIOs to properly calculate the net asset value of IT and see where the budget goes. "A redistribution of IT budget lets more money be spent on innovation," he says. "And an IT strategy aligned with future business requirements means there will be more time and budget available for innovations which will drive the business."

Breaking down silos with **hyperconverged infrastructure**

Application delivery services have to up their game and offer increased availability, app acceleration, load balancing and many more aspects, without compromising security, says Gary Newe, director: field systems engineering for the UK, Ireland and sub-Sahara Africa at F5 Networks

image: www.computing.co.uk

Hyperconverged infrastructure will be an increasingly hot topic in the coming months, as the biggest names in the industry start to take notice.

Hyperconvergence is an extension of a converged infrastructure, where compute, server, storage, networking resources and software are pooled together on commodity hardware. They are usually systems from separate companies but designed to work very well together.

The benefits of this include massively simplified management, which makes things faster, more agile and more efficient. It's one of the foundations of virtualisation, but hyperconvergence allows for even greater abstraction of software and hardware, more centralised management and a greater emphasis on virtualisation capabilities.

This is a modular system that is designed to scale out; instead of adding new storage, for example, a new module is added, giving the whole system a boost. It also offers support for additional features including wide area network (WAN) optimisation, software-defined networking (SDN) technology and data deduplication.

The advantages of a hyperconverged infrastructure are that it allows all elements to be managed from a single point – the perfect way to simplify the virtualised environment.

This has positive repercussions for the future of enterprise application delivery. Hyperconvergence has incredible scale-out capabilities and can handle thousands of virtual applications simultaneously, ensuring applications are delivered exactly when they need to be, without any latency issues.

Along with availability, speed is one of the key features of enterprise application delivery.

Application delivery is changing all the time – people are accessing applications from mobile devices, home PCs, virtualised desktop environments and many other places that sit outside the traditional perimeter. This means that application delivery services have to up their game and offer increased availability, app acceleration, load balancing and many more aspects, without compromising security.

Hyperconverged infrastructures are knocking down the silos that still inhibit legacy IT, where networking, servers and storage are all operated independently. It's making IT quicker, more agile and more efficient.

Of course, what matters next is getting the application delivery right; it's no good having a system that does all of the above if the end users cannot then use the applications they need to do their jobs. ■

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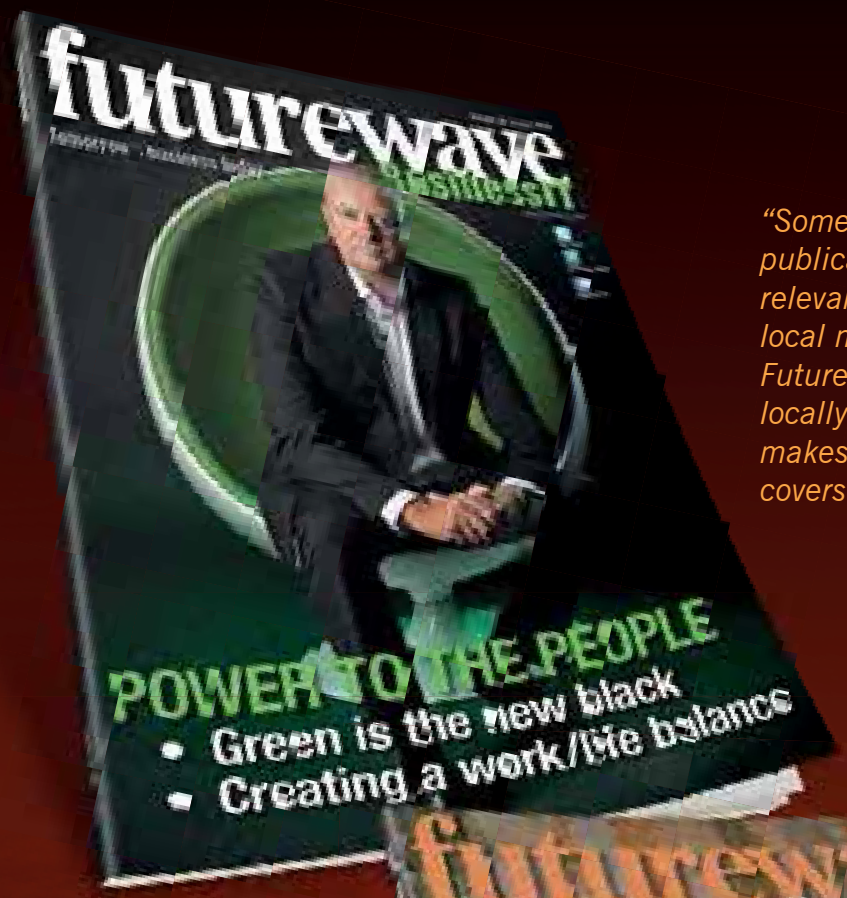

"Some IT and technology-related publications produce articles in which relevance and practicality to the local market is questionable. With Futurewave, not only are the articles locally relevant, editorial comment makes sense. It's one publication that covers many relevant topics."

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Philips

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Why courts prefer business rescue to liquidation

In a climate where many South African firms are feeling a knock-on effect from business closures, alternatives to liquidation may be welcome – and business rescue should be considered. What is business rescue, and how can it affect – or assist – a company in financial distress? Gareth Cremen, partner at Ramsay Webber Attorneys, talks about what business rescue is and when it can be implemented.

Business rescue is a fairly new concept in South African Law and was introduced through the enactment of the Companies Act 71 of 2008 (the Act). One of the main purposes of the Act as encapsulated in Sec 7 of the Act is to "provide for the efficient rescue and recovery of financially distressed companies in a manner that balances the rights and interests of all relevant stakeholders" (Sec 7(k) of the Act). Chapter 6 of the Act governs the process of business rescue.

Business rescue is defined in Sec 128 of the Act as proceedings to facilitate the rehabilitation of a company that is financially distressed by providing for: the temporary supervision of the company, and the management of its affairs, business and property; a temporary moratorium on the rights of claimants against the company or in respect of property in its possession; the development and implementation, if approved, of a plan to rescue the company by restructuring its affairs, business, property, debt, and equity in a manner that maximises the likelihood of the company continuing in existence on a solvent basis or, if that is not possible; and a plan that would achieve a better a better return for the company's creditors than the payment they would have received if the company had been liquidated immediately.

What is clear from the definition of business rescue is that only a company that is "financially distressed" can be placed under business rescue. To determine whether a company is financially distressed either a cash flow or a balance sheet test can be applied.

The business rescue process is meant to be used at the earliest moment, when a company is showing signs that it could soon become insolvent but where it has not yet reached the stage of insolvency.

The sooner a company is placed in business rescue, the greater the chance of the company being successfully

rehabilitated.

Because business rescue is a new creature in South African Law, many of the provisions of Chapter 6 of the Act have not yet been tested by our courts, and uncertainty still abounds regarding many of the provisions contained in Chapter 6. What has become clear is that the courts favour business rescue to liquidation, and the limited jurisprudence there is on the subject has shown that the courts will nearly always interpret the provisions of the Act so as to make business rescue work and to give substance to the purpose of Business Rescue and the Act itself.

Entering business rescue

There are two ways in which a company can be placed in business rescue: either by a company resolution to begin business rescue proceedings in terms of Sec 129 of the Act; or a court order placing the company is business rescue in terms if Sec 131 of the Act.

Company resolution to begin business rescue

Sec 129 of the Act provides that the board of a company may resolve that the company voluntarily begin business rescue proceedings, if the board has reasonable grounds to believe the company is financially distressed and that there appears to be a reasonable prospect of the company being rescued.

The board may not voluntarily place the company into business rescue if liquidation proceedings have been instituted against the company.

Section 129 imposes certain obligations on the board and there are very stringent notices periods that the board must follow. The board must give notice to all affected parties (creditors, employees, shareholders) of the decision to enter in to business rescue as well as the appointment of a business rescue practitioner.

Should the board fail to comply with the various notices periods, then the resolution to place the company into business rescue lapses and is a nullity, the board is also prohibited from filing another resolution to voluntarily begin business rescue for a period of three months.

In terms of Sec 130 of the Act any affected person parties (creditors, employees, shareholders) can apply to court to set aside the resolution to commence business rescue on the grounds that there is no basis to believe the company is financially distressed, that there is no reasonable possibility that the company can be rescued or that the procedures in terms of Sec 129 have not been complied with. Sec 130 also allows an affected party to set aside the appointment of the business rescue practitioner if it can be established that he does not meet the requirements of the Act, or if he is not sufficiently independent of the company or its management or board.

The purpose of Sec 130 is to give affected parties the right to approach the courts for protection in circumstances when the provisions of Sec 129 have been abused by the board to the detriment of affected parties.

Court order to begin business rescue

Section 131 of the Act makes provision for a company to be placed under business rescue proceedings on a compulsory basis by the court upon application by an affected person.

In effect this means that any creditor, employee, shareholder of the company may apply to court to have the company placed under business rescue.

A court may only put a company into business rescue in terms of Sec 131 if it is satisfied that the company is financially distressed, the company has failed to pay over any amount owing in terms of any obligation to do so, it is just and equitable to do so and the court is satisfied that there is a reasonable prospect of the company being rescued.

In granting an application for Business Rescue in terms of Sec 131 the court may further appoint a business rescue practitioner that fulfils the requirements of the act and which was nominated by the affected person who brought the application for business rescue, subject to the business rescue practitioner being ratified at the first meeting of creditors.

Moratorium on legal proceedings

Sec 133 of the Act makes provision for a general moratorium on legal proceedings, including any enforcement action, against a company, or any property belonging to a company or lawfully in its possession, while the company is subject to business rescue proceedings.

This moratorium is in order to grant the business rescue practitioner some breathing room while he attempts to rescue the company through the design and implementation of a business rescue plan. ■

Winding up a business: Possibility of intervention?

In September 2010, ABSA and Africa's Best Minerals (ABM) entered into a written loan agreement in terms of which ABSA loaned an amount of R9,55-million to ABM.

ABM had a period of 83 months in which to repay the loan, but failed to make its payments on time so the full amount became due and payable, leaving ABM in a position of financial crisis.

ABSA applied for the final winding up of ABM, which prompted King Sekhukhune to bring an application to intervene on a number of grounds.

The court held that in order for a party to successfully intervene in proceedings of this nature it must establish an interest more than a mere financial interest in the proceedings - merely having an interest as a shareholder or creditor is insufficient. The intervener must have a legal interest which it seeks to protect and such interest must be material enough to affect the outcome of the winding up application of the business. These requirements were not met and so the court dismissed the intervention application.

In terms of the winding up application the court found that ABM was indebted to ABSA in that it had failed to pay amounts due, owing and payable, and that it was commercially insolvent. The court thus only needed to decide whether the winding up of ABM should be granted.

The Companies Act 61 of 1973 at section 344(f) provides for the winding up of a company in terms of section 345 if it is unable to repay its debts. Section 345 is a deeming provision which deems a company unable to repay its debts if a debt exceeding R100 is due, the creditor has delivered a letter of demand for payment of the debt, and the company has failed to repay that debt within three weeks thereof and thereby failed to meet the demand.

ABSA had met the abovementioned requirements of section 345 and so the court granted the relief it sought.

More than 75 million devices are running Windows 10. So… it really is here, and any similarity between the Windows 10 start-up logo and the Poltergeist movie poster is completely coincidental.

No self-respecting ICT publication worth its salt would go a day without mentioning the Ashley Madison hack. There, I've done it – and I pity that poor guy in de Aar – and so let's move on to more interesting things. Seven years ago, one of the big boys at Ogilvy published his opus detailing what he called "the five stages of Twitter acceptance".

- **Denial** – "I think Twitter sounds stupid. Why would anyone care what other people are doing right now?"
- **Presence** – "OK, I don't really get why people love it, but I guess I should at least create an account."
- **Dumping** – "I'm on Twitter and use it for pasting links to my blog posts and pointing people to my press releases (or stuff about me)."
- **Conversing** – "I don't always post useful stuff, but I do use Twitter to have authentic 1-on-1 conversations."
- **Microblogging** – "I'm using Twitter to publish useful information that people read AND I converse 1-on-1 authentically."

And almost a decade later, a great many people – and companies – are stuck in the first two stages. Even teenagers, who seem to be glued to their mobile devices, have not exactly taken to Twitter in droves. Research from the US-based Pew Research Centre indicate only some 6% use Twitter often, while 41% report they use Facebook often. The bigger picture shows that 92% of teens report going online daily – including 24% who say they go online "almost constantly".

Frenzy of access: That's what Pew calls it, and could explain why about 90% of those surveyed say texting is a major means of communication, with a typical US teen sending and receiving 30 texts per day, using not only traditional SMS but also apps like WhatsApp. This could also explain why it is perfectly fine for the younger set to ask for dates or have "romantic" discussions without a word being said.

Woo me, thrill me. Msg me. Researchers at Indiana University have found that when writing romantic e-mails, senders consciously or subconsciously added more positive content to their messages - perhaps to compensate for the medium's inability to convey vocal tone. Intriguingly, because they need to engage with e-mail messages longer and may think about the task more deeply than when leaving voicemails, "this extra processing may increase arousal". A work colleague says this just indicates lack of manners.

Flight of the bumble pee. This photograph, taken by English amateur photographer Mark Parrott, has been popped up all over social media. It apparently shows a bee urinating while flying, but it's just "voiding water", which they need to do quite often "to have a balanced water-budget", as a scientific journal put it. Still, melittologists say it's a rare thing to capture on camera.

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