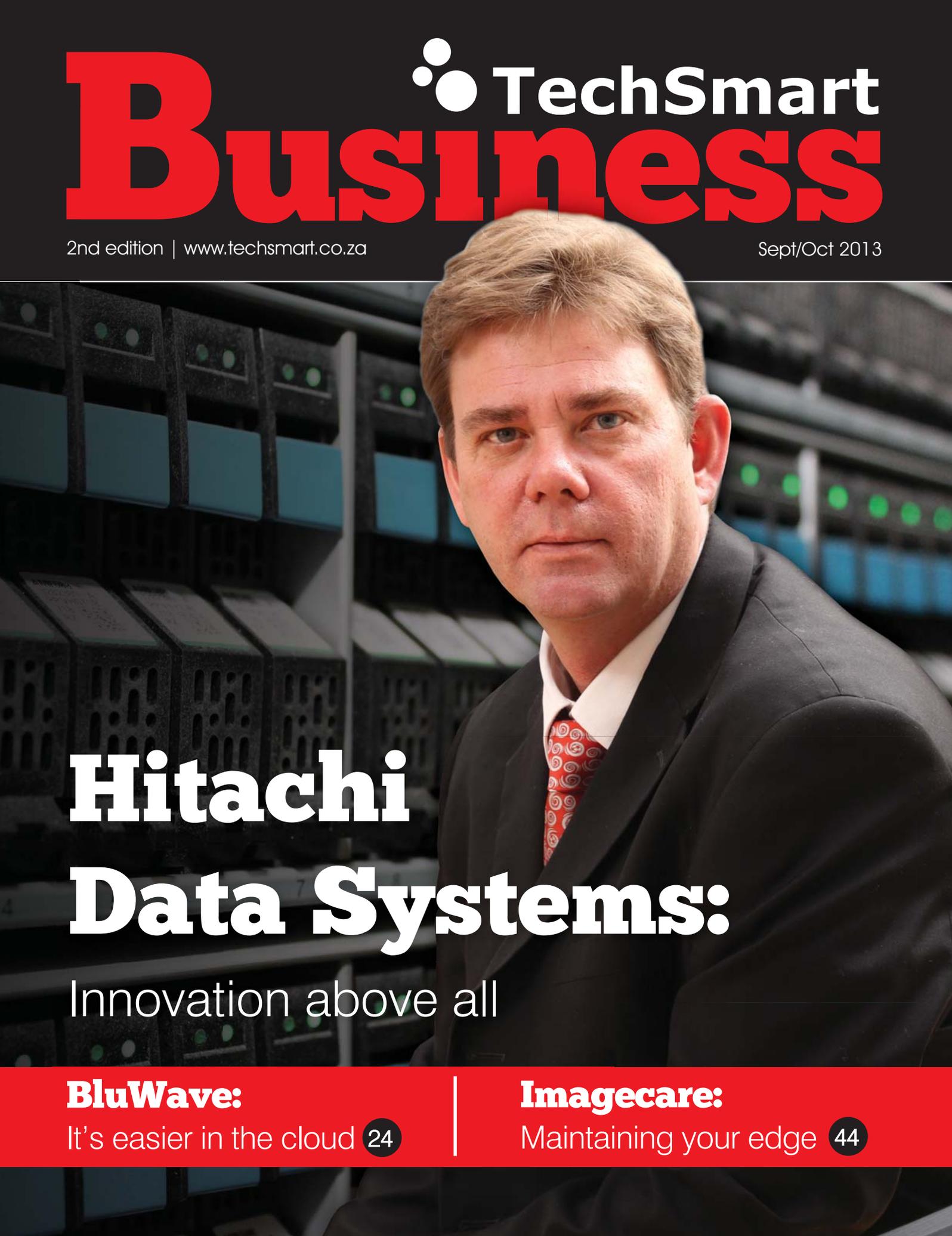


# TechSmart **Business**

2nd edition | [www.techsmart.co.za](http://www.techsmart.co.za)

Sept/Oct 2013

A man with short brown hair, wearing a dark suit, white shirt, and a red patterned tie, is looking directly at the camera. He is standing in front of a server room with rows of server racks. The racks have blue and green lights. The background is slightly blurred.

## **Hitachi Data Systems:**

Innovation above all

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# Finally, a tablet with a work ethic.

**Introducing the HP ElitePad 900.** Works in all the ways you do. The tablet made for business and compatible with Windows 8 Pro<sup>1</sup>, powered by Intel Inside®. Now, mobility meets versatility thanks to a suite of productivity-enhancing accessories like Smart Jackets, that let you expand into a productive desktop experience when you're in the office or a nimble and light business ready tablet when you're working anywhere else. Authorised service providers can access and replace the battery<sup>2</sup>, plus the enterprise-level security your company demands including HP Client Security and TMP 2.0. Enable your workforce now at [www.waltons.co.za](http://www.waltons.co.za)



**HP Expansion Jacket<sup>3</sup>**  
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**HP ElitePad Rugged Case<sup>3</sup>**  
Protect your ElitePad wherever you are. Includes a built-in handle and shoulder strap.



**HP ElitePad Docking Station<sup>3</sup>**  
Turn your ElitePad into a full desktop experience by connecting to a range of optional accessories.

<sup>1</sup>This system is Windows 8 certified and supports the new Windows UI. The integrated display resolution is below the threshold for Snap, a Windows UI feature that allows two Windows Store apps to be viewed simultaneously. This feature may be enabled by attaching an external 1366 x 768 or higher resolution display. Not all features are available in all editions of Windows 8. Systems may require upgraded and/or separately purchased hardware, drivers and/or software to take full advantage of Windows 8 functionality. See [microsoft.com](http://microsoft.com)  
<sup>2</sup>Requires purchase of HP service tool. For customers located in the United States and Canada, visit this link to find out more about our self-maintainer program: [hp.com/partners/SMprogram](http://hp.com/partners/SMprogram). For customers in Latin America, EMEA and Asia Pacific, please work directly with your sales account representative to understand what self-repair program options may be available for you.  
<sup>3</sup>Optional accessories. Sold separately. Various availability dates from February 2013. Please check with your local reseller for details.  
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# Full steam ahead

The last three months have been hectic to say the least. The response we received from our first issue was overwhelming and we must say a very big thank you to all those who contributed to its success – and we see things only getting better.

Our cover story this month focuses on Hitachi Data Systems that has experienced phenomenal growth over the past 10 years and delivers high-end hardware to corporate companies in Africa. The advances made in storage and processing power is simply mind boggling, and Adrian Wood, Sales Business director at Hitachi, is of the opinion that the future of the tech industry is looking rosy indeed.

Also in this issue we have a look at the world of apps. They are everywhere, can do anything, and would seem to be an indispensable tool for business growth in our connected world. That said, creating an app for the pure sake of having an app is not advised, it must add value to you and your customer. We chat to a number of people about the process of creating apps, tricks and tips, and questions you need to ask yourself before embarking on this exercise.

Lastly, we look at the cloud. We all know the term, have a reasonable understanding of the concept, but what can it actually do for us? We look at the process of migrating to the cloud and the challenges faced by corporates once the decision to move has been taken. Moving to the cloud is no longer a question of should we, it is a question of when will we, and how?

As always, we depend on you, our readers, to let us know what you think of the magazine, what is working, what isn't, and how we can make it better. For all your comments and suggestions just drop me a line at [gavin@techsmart.co.za](mailto:gavin@techsmart.co.za) and remember to keep all your news coming.

Gavin Smith  
[gavin@techsmart.co.za](mailto:gavin@techsmart.co.za)

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**SMART PUBLISHING**  
FREE MEDIA SPECIALISTS

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# TOP deals

## Acer Aspire S7 Ultrabook

[bit.ly/s7deal](http://bit.ly/s7deal)

Intel Core i5-3337U, 4 GB RAM, 128 GB SSD, 13.3" Multi-touch Full HD screen, Windows 8 Pro 64-bit

**R18 499**

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## Samsung ATIV Smart PC

[bit.ly/ativdeal](http://bit.ly/ativdeal)

Intel ATOM Z2760 1.5 GHz, 2 GB RAM, 64 GB EMMC iNAND Embedded Flash Drive, 11.6" (1366 x 768) LED touchscreen, Windows 8

**R10 699**

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it is your choice*



## Lenovo Ideapad Yoga

[bit.ly/lenyogdeal](http://bit.ly/lenyogdeal)

Intel Core i5-3317U, 4 GB RAM, 128 GB SSD, 13.3" (1600x900) HD+IPS capacitive touchscreen, Windows 8

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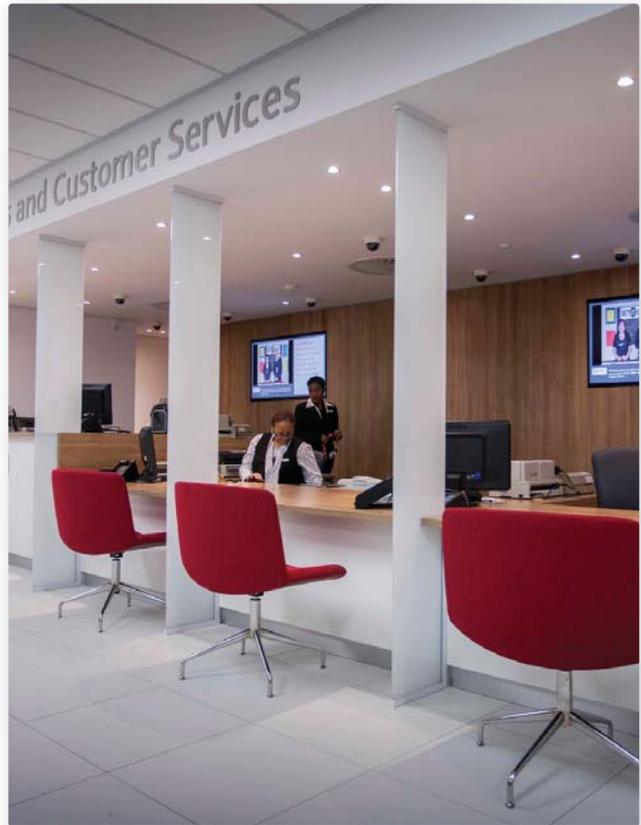
## The future of banking

Imagine a bank where long queues are a thing of the past, even during traditionally busy periods, where innovation not only drives convenience but also has tremendous environmental benefits, and technological advances support a safe and convenient 24-hour banking experience. Absa's Hyde Park branch has been transformed into the new face of modern banking.

Innovations such as Quick Service Kiosks allow customers to perform complex banking activities without the need to queue, while the bank's innovative Qmatic system uses a ticketing system to match a customer's transactional requirements with the best skilled consultant who can provide the service in the shortest possible time. The customer is then directed to multi-skilled staff who are able to handle varied queries and transactional needs quickly and efficiently – all at the same counter.



To further improve the customer's experience, the glass barriers which previously existed between customer and banker have been removed, while teller cash recycling machines allow for quick and accurate counting of cash whilst maintaining a highly secure environment.



## DCC's new specialist

Distributor, Drive Control Corporation (DCC), recently appointed Farhad Alli as its new WD and Crucial product specialist. Alli is charged with managing the full range of WD and Crucial products, providing internal sales staff and resellers with support, assisting them with product issues, driving sales, managing stock and more. No newcomer to DCC, Alli has been with the company since 2008, providing him with a strong understanding of how distribution works and a thorough knowledge of DCC's operations.

Says Alli, "My IT background in retail and distribution served me well and I was ready for a new challenge. I was excited to take on the role of product specialist, providing me with the challenge of not only managing the WD and Crucial products and brands but also growing their market share."

The hard disk drive (HDD) market is a burgeoning one and the latest developments in this arena such as solid state drives make it a dynamic one. Strides are also being made in drives that are purpose built for particular applications and environments, creating greater product segmentation.



Farhad Alli, WD and Crucial Product Specialist, DCC

## R67.5 million contract

**T**-Systems in South Africa has been awarded a SAP Application Management and Modernisation (AMM) contract by the Department of Water Affairs worth R67.5 million.

The three-year agreement, awarded following a tender process, continues T-Systems' relationship with the DWA. The ICT provider was responsible for the implementation of a Revenue Stabilisation programme in 2010 to improve business systems and processes.

Since 2010, T-Systems has gained a thorough understanding of the DWA's key ICT requirements and subsequent operations. The successful rollout of the Revenue Stabilisation programme offered a direct revenue value to the department and undoubtedly the AMM implementation will offer important returns.

T-System in South Africa's value was demonstrated through its enterprise development initiative, assisting DWA to create a Centre of Excellence (CoE) to develop their ability to support its AMM infrastructure after the term of the contract.

T-Systems' has identified a number of Employment Equity (EE) graduates who will be skilled in the AMM support arena through a combination of onsite and formal training. This initiative will not only create a pool of skills resources for the Department to use in future, but also facilitate sustainable development by introducing newly skilled resources into the market.



*Gert Schoonbee, MD, T-Systems*

## Jasco keeps you plugged in



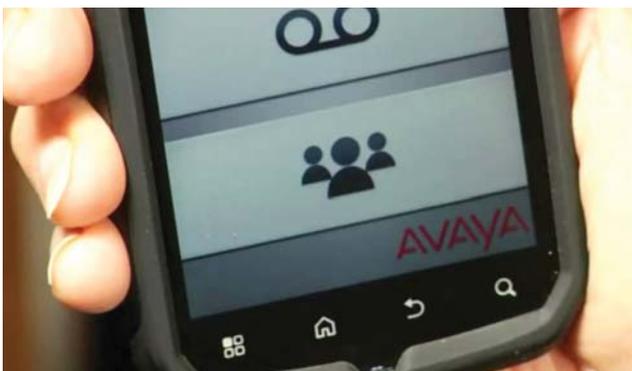
*Paul Fick, Divisional MD Jasco Enterprise*

**J**asco Enterprise has upgraded Eskom's national contact centre infrastructure with the latest Avaya technology, which will contribute significantly to the Eskom strategy of continuous improvement of their service to customers.

The Small Medium Enterprise (SME) and residential customers are serviced through Eskom's seven virtualised regional contact centres based around the country. The infrastructure is also utilised to provide customer care services to other target groups within Eskom.

All call logging, customer information management and reporting is now centralised and contact centre managers have access to real time customer interaction information. This allows them to respond immediately and do more effective resource planning to efficiently deal with customer queries when there are service interruptions.

Paul Fick, Divisional MD at Jasco Enterprise says another key focus for Eskom was the effective management of proactive outbound contact, such as SMS notification services, which informs customers when there are service interruptions, as well as inbound communications, linking customer queries directly to their profile. The outbound SMS service was previously done outside of the contact centre, but is now brought in-house and integrated to have a single view of customers.



## Now you see me

**A**vaya recently launched the Avaya Video Collaboration Solution for IP Office, an all new video collaboration solution designed specifically for the small and midsize enterprise segment (SME). The Avaya Video Collaboration Solution for IP Office provides simple, affordable yet comprehensive desktop, mobile and HD room-system video collaboration capabilities. Avaya IP Office is the company's flagship unified communications solution for SMEs.

According to research firm IDC, 30% of SMEs are currently using some video conferencing resources beyond simple webcams. Intentions are at roughly the same level, which sets the stage for significant growth and the number of SMEs using video collaboration could potentially double in the next 12 months.

The Avaya Video Collaboration Solution is unique in its ability to deliver BYOD (Bring Your Own Device) and HD room-system capabilities in a single, highly affordable and easy to deploy solution for SMEs.



## Making business mobile

**I**nvensys, supplier of industrial software, systems and control equipment to the world's major industries, has acquired the SmartGlance mobile reporting product of Sarla Analytics, LLC.

Founded in 2010, Sarla Analytics is part of The Sarla Group of software companies. Sarla Analytics' mission is to leverage the power of enterprise mobility to increase productivity, reduce costs and streamline operations. SmartGlance, the industrial mobile reporting business app, delivers secure, on-demand access to rich, graphical reports from any operations data source via mobile devices, allowing industrial personnel to make smarter, faster decisions from anywhere, at any time and on any device.

SmartGlance provides connectors for accessing data from different manufacturing sources, including both Invensys and non-Invensys systems. This offers Invensys customers real-time access to important business data alerts and notifications. It also allows them to view that information in a native mobile application optimised for any mobile device, such as smart phones and tablets.

SmartGlance supports quick and more accurate decisions, enabling the ability to take action, share data and collaborate with colleagues. Additionally, it permits the ability to push data from virtually any data source, including popular process historians and any SQL database. All this, with a very fast and simple implementation, small install footprint and no additional hardware required.

As part of the acquisition, the SmartGlance product will slot into the Invensys Wonderware portfolio of software product offerings.

## Canon does it again

**C**anon Europe, leader in imaging solutions, has won more than 50 awards since 2009 for its portfolio of business imaging products and services; a strong recognition of Canon's ongoing innovation and position at the forefront of the market.

Benefits highlighted by the awards include productivity, ease of use and energy efficiency. These awards reflect Canon's continued commitment to innovation and investment in R&D.

Canon has experienced great success in its individual product ranges with BLI Pick awards for MFPs, printers and scanners, and three Major Line of Year awards from BLI and BERTL, Inc., affirming its commitment to delivering industry-leading performance and reliability across its entire portfolio.

Canon's imageRUNNER ADVANCE range of MFDs received the most recognition overall, receiving 12 awards for areas such as Best Office Multifunctional Line of the Year and Best Segment 2 A3 Colour Multifunctional Printer since 2010.

In 2013 Canon has also received the BLI Solutions Line of the Year award, the first time the honour has been presented in Europe. Canon also scooped six 2011 BEST awards from industry analysts BERTL, Inc.



## Making it easy to do good

**O**ctober 15th will see the return of the ever popular Acorn Foundation charity golf day. The venue for the event is the spectacular Peacanwood Golf Club and there will, once again, be some great prizes up for grabs.

Due to last year's spectacular response and support through various brands such as 8.ta, RTT Solutions, GloCell, MTN, Vodacom, Habari XL, IHS, Kone Elevators, Radical Group, and Insence Productions it's no surprise that The Acorn Foundation have decided to go even bigger this year.



Makes it easy to do good

"The vision behind the Acorn Foundation aspires to bring about a brighter future for all with a core focus to improve the quality of life for Children and their Families in South African communities," says Acorn Foundation CEO, Rudy Joles.

"Sustainability is key and Acorn Foundation works alongside both sponsors and beneficiaries in order to ensure that a long lasting, tangible difference is not only possible but maintained." **TSB**

### For more information

Email: [info@radicalgroup.co.za](mailto:info@radicalgroup.co.za) or  
Rudy Joles at [joles@acornfoundation.org.za](mailto:joles@acornfoundation.org.za)

#### 1st Prize

A Round of Golf – 4 players on Signature Golf Course at Legends, in the Entabeni Safari Conservancy. This includes a Golf Cart & Halfway House, as well as an opportunity to play the Extreme 19th hole with a helicopter. Valued @ R15 000

#### 2nd Prize

51" Samsung LED TV. Valued @ R12 000

#### 3rd Prize

Bulova Watch. Valued @ R10 000



# Living on The Digital Edge

**A**lready in its fifth year, Nedbank Digital Edge Live, brought to you by NATIVE, one of South Africa's premiere full service digital marketing agencies, is on our doorstep. The highly regarded thought leadership event is a 'must attend' forum for marketing, advertising and communications professionals.

This year, one of the most prominent banks in the financial services sector, Nedbank, has actively moved into the digital marketing arena, and has come on board as title partner after recognising the opportunity to showcase its thought-leadership support.

The highlights of this year's event will be the address from keynote speaker, Harper Reed, the man behind US President Barack Obama's online campaign. "Harper Reed is a unique draw card. As chief technology officer of the highly successful Obama for America online campaign, he engineered perhaps the most sophisticated political campaign of all time. He is a crowd-sourcing and social media pioneer as well as an expert on the future of big data. We have no doubt he will bring something inspiring and original to the event," says Ben Wagner, chief marketing warrior of NATIVE.

The theme of this year's event is ICE – Intuitive Customer Experiences. Musa Kalenga, head: Group Digital Marketing at Nedbank Integrated Marketing, explains that the focus will be on amplifying the global trend of showcasing how

marketing and IT need to work in tandem to co-design intuitive customer experiences."

The new theme represents a dynamic lineup of speakers made up of advertising and digital marketing heavyweights together with leading CMO's & CTO's, including Chris Gotz (Ogilvy CT), Pepe Marais (Joe Public), Jason Xenopoulos (NATIVE), Fran Luckin (Quirk), Pete Case (Gloo), Alistair Fairweather (Mail & Guardian), Heidi Brauer (Hollard), and Fred Baumhardt (Microsoft).

Kalenga continues, "One of the biggest barriers to creating a truly customer-centred offering is the lack of integration between marketing and IT. Most CMO's today understand the challenges involved in winning business in a consumer-led marketplace. Unfortunately, the IT systems and processes that govern their customers' paths-to-purchase are often unable to facilitate the growing demands of the empowered consumer.

"We will be bringing insights from forward thinking brands and agencies that have identified this problem and who are starting to break down the silos that exist within their businesses – particularly in the areas of marketing and IT." **TSB**

#### Event Details:

3 October 2013  
Vodadome, Midrand  
12.00 – 17.00 (registration opens at 11.00)

#### Ticket prices:

- Full ticket price: R 900 p/p
- Student ticket price: R400
- All tickets include free parking, lunch and beverages

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# Industry first integrated file sync and share for the enterprise

**Hitachi Data Systems Corporation (HDS), recently unveiled new solutions and services that allow enterprises to adopt cloud computing more readily, enable their mobile workforce more securely and reliably, and provide a better IT experience to their end-users.**

**T**he Hitachi Data Systems family of cloud services and solutions offer new options to help manage the multiple demands of IT. These demands include explosive growth of unstructured data, user expectations to access information from anywhere, and the requirement to ensure security, simplicity and protection of all data wherever it lives. With today's new HDS offerings, customers can achieve the cost and flexibility benefits of the cloud by reducing capex and opex.

## Hitachi Content Platform Anywhere

This is the industry's first integrated file sync and share solution that is built, sold and supported for the enterprise entirely by a single vendor. It brings secure mobility to the enterprise – it lets users access data and collaborate on any device, from any location at any time and easily share files. And IT keeps the data within its control, security and compliance practices, unlike consumer-grade file sharing services which have struggled to gain the confidence of enterprise IT groups. HCP Anywhere is



*Shaun Barendson, Country Manager, HDS South Africa*



**Though consumer file sync and share options have been available for some time, options for the enterprise are still emerging.**

built expressly for the enterprise and jumps ahead of industry alternatives in ease of implementation and control of important, but rarely discussed, issues of encryption, key ownership and terms of service.

#### **New version of Hitachi Content Platform (HCP)**

One seamless cloud storage platform for data protection, enterprise mobility and content cloud, it features the most advanced metadata management in the market and sets a foundation for big data and analytics.

#### **Hitachi Cloud Services**

An extension of the enterprise into a secure, robust, off-premise content cloud managed by HDS.

#### **Hitachi Cloud Service Provider Program**

A partner-provided public cloud offering built on HDS cloud infrastructure and solutions, it is part of a new HDS cloud partner framework.

“Though consumer file sync and share options have been available for some time, options for the enterprise are still emerging,” says Shaun Barendsen, country manager, HDS South Africa. “With this new cloud package, HDS is leveraging its enterprise solution provider strengths at the core and we are now providing a consumer-like experience at the edge. Our new HCP Anywhere application and platform should be particularly appealing to security-conscious end-users who need to lock down access to business data and leverage additional cloud capabilities and support to satisfy end-user requirements for data access across multiple devices. HDS already has a reputation of trust with this customer base and the economics for our file sync and share are very compelling. With all the back-end integration, self-service and controls HDS offers today and plans to add, HDS is bringing a serious enterprise sync and share solution to market.”

#### **Solving the challenges customers face**

“Our unique approach to cloud allows our customers to

choose the best possible solutions to address their needs, at their own pace, and in a way that makes sense for their business,” says Barendsen. “Our cloud portfolio does more than just solve the challenges customers face today – it sets them up for what is coming next. Trends like big data, bring your own device, next-generation file services, secure clouds, distributed IT, and metadata-driven automation, management and analytics are quickly becoming pervasive. The products and services we are announcing today allow enterprise organisations to use cloud and file sharing in ways that were never before possible. It is with these new offerings that customers can further innovate with information as the IT industry continues to evolve.”

HDS delivers secure, flexible, scalable and easy-to-manage private, hybrid and public cloud infrastructures that enable businesses to lower total cost of ownership, meet service level agreements, and improve operational efficiency. At the heart of HDS cloud solutions are a set of proven, cloud-enabled platforms that support the unified, virtualised and distributed environments common in organisations today. Together, HDS cloud solutions based on HCP enable organisations to experience some of these benefits:

- Reduce TCO by 60%.
- Reduce space needed for backups by 30%.
- Create a two year deferral on new storage purchases.
- Enable five times more terabytes managed per administrator. **TSB**

#### **Contact details:**

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# SA corporates lag behind on big data analytics

**While local corporates are ready for big data analytics, there is a general lack of strategic vision and drive to support its implementation.**

**L**arge South African corporates are lagging far behind when it comes to the utilisation of big data analytics. This is due to a lack of understanding at an executive level of the competitive advantage big data analytics brings in enabling companies to respond to data it has collected in real time.

Adrian Wood, Sales & Business Director – Sub Saharan Africa at Hitachi Data Systems (HDS), says that when HDS, conducted research in the United Kingdom, it found that 75% of the organisations with more than 1 000 employees surveyed are currently investing in big data analytics. And of these, 80% are deploying solutions.

“69% of organisations investing in big data analytics agreed that they do not have the infrastructure in place to analyse up-to-the-minute information across all their data sets,” he says.

## Using big data effectively

Big data analytics gives companies the ability to analyse structured and unstructured data in real time and make business relevant decisions based on that analysis. It would primarily be used by the likes of telecoms operators, retailers and banks.

However, local high level research conducted by Strategy Worn on behalf of Hitachi Data Systems, suggests that while many of South Africa’s large corporations do have the hardware infrastructure in place, the CIOs within those organisations are generally not currently using big data analytics or systems in any substantive way.



*Adrian Wood, Sales & Business Director – Sub Saharan Africa, Hitachi Data Systems*

## Understanding the impact of data

To understand the implications of why big data analytics is important, Wood says consider the implications of a telecoms company releasing a new product set into the market, which encounters stiff criticism in the social media sphere.

“Big data analytics would give the telecoms operator the ability to analyse social media responses in relation to the product as well as the real time internal data such as the uptake of the product, the effect on the call centre, and other financial data.

**Big data analytics gives companies the ability to analyse structured and unstructured data in real time and make business relevant decisions based on that analysis.**

“Given the siloed nature of the operations of many corporates, these are conclusions that are often only drawn several months down the line,” he says.

Steven Ambrose, Strategy Worx CEO, says that the research showed that in many cases while South African CIOs were aware of big data analytics and the trends around it internationally, they did not understand the potential impact big data analytics could have on their businesses.

“Unfortunately CIOs and IT operations are often seen as cost centres within large corporates in South Africa, and as a result, local CIOs aren’t always thinking strategically when it comes to the use of technology like big data analytics.

“Furthermore, the historical lack of competitiveness in sectors like telecoms, banking and retail together with the lack of broadband penetration locally means that businesses have not been exposed to the full impact of their customers’ responses to their products and services to the same degree that UK corporates might be,” he says.

#### **Making decisions faster**

However, the customer movement within sectors like banking and telecoms are showing that consumers are switching service providers, which means that competition is increasing in these sectors and businesses need to be able to analyse trends and make decisions far faster than they have had to do in the past. Real time analysis of data is becoming a major differentiator and business resource.

Wood says it is somewhat surprising that the strategic importance of big data analytics has been missed.

Large corporates locally instead place importance on up-to-date data and basing decisions on this data for accurate measurable outcomes. This contrasts the UK research where just over half the sample viewed making critical decisions based on old data poor practice.

“Instead large corporates locally use business intelligence systems and data specialists to analyse current structured



*Steven Ambrose, CEO, Strategy Worx*

and unstructured data. BI systems are focused on line of business solutions with a small amount of understanding customer behaviour based on historical activity,” he says.

As a result, Ambrose says local corporates are reactive to consumer behaviour and unable to make strategic and timeous decisions to change tack when a course of action is proving detrimental to the business. **TSB**

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	<input type="checkbox"/> Tourism/Hospitality Other (please specify) _____				
Number of employees in business	<input type="checkbox"/> 5-10	<input type="checkbox"/> 11-25	<input type="checkbox"/> 26-50	<input type="checkbox"/> 51-100	
	<input type="checkbox"/> 101-250	<input type="checkbox"/> 251-500	<input type="checkbox"/> 501-1 000		
	<input type="checkbox"/> 1 000-2 500	<input type="checkbox"/> 2 501-5 000	<input type="checkbox"/> More than 5 000		
Company yearly IT budget	<input type="checkbox"/> R100 00-R500 000	<input type="checkbox"/> R500 001-R1 000 000	<input type="checkbox"/> R1 000 001-R2 500 000		
	<input type="checkbox"/> R2 500 001-R5 000 000	<input type="checkbox"/> R5 000 001-R10 000 000	<input type="checkbox"/> R10 000 000+		
Tel number	_____				
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Would you like to subscribe to our newsletter	<input type="checkbox"/> Yes <input type="checkbox"/> No				
Physical address	_____				
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					Area code _____
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					Area code _____

**Kindly fax the completed form to 086-240-6947 or email to [marlien@smartpublishing.co.za](mailto:marlien@smartpublishing.co.za).**

# Overcoming logbook blues



**Admin is not a strong point, here at TechSmart Business. The simple task of opening post and filing in the relevant folder makes us shudder just thinking about it. So, you can imagine how tedious we find it keeping a logbook of travel and mileage to present to the tax man every year. Luckily AfriGIS has come up with a simple solution – an app that sits on your smartphone and does all the hard work for you.**

**A**friGIS is a geographic information and communication solutions company aimed primarily at the business to business sphere. Their mobility framework essentially answers four basic geographic questions namely where do I go, how do I get there, what do I do when I get there and, what was the result? This is a perfect tool for companies that need to manage small fleets and keep track of their performance. Magnus Rademeyer, managing director at AfriGIS says that the new logbook component has come about through high demand from current customers of AfriGIS to further simplify their daily operations. “It’s always a bit of a schlep to keep track of every kilometer you drive in a little logbook in the cubby. It was with this in mind that we decided to write an application that would extract a logbook from the AfriGIS Navigator application that people currently use.”

Once registered, information will be extracted from the AfriGIS Navigator system and a complete breakdown of your travel will be mailed to you on a daily basis. “Although this is a free service, there are a number of value-adds that we will, once again, be aiming at the business to business market. For a

business we can include odometer readings, planned distances vs actual, and sub-contractor claim management among others.”

## Simple solution for SMMEs

Rademeyer notes that AfriGIS has taken a conscious decision to target the SMME market with this tool as the larger corporates have fleet management systems in place that are far too complex and detailed for the smaller companies. “The SMMEs don’t need to go into the depth that large corporate entities do and appreciate the simplicity of the system. Getting a single email every day telling you exactly which cell phone or Navigator travelled which distance. You can also nominate a single mail address where all the information can be sent to make consolidation easier. It’s as simple as registering your cell phone for the service and remembering to use AfriGIS Navigator to navigate to all your destinations and appointments. (SMS your email address to 41488, SMS cost R0.50)

You can also send a waypoint to a registered Navigator, so there is no need to type an address in the car. You can even send the user of the AfriGIS Navigator a destination point to their AfriGIS Navigator Inbox by using <http://maps.AfriGIS.co.za> or your own AfriGIS Navigator. This eliminates the possibility of getting a destination wrong.

This is just one more value-add product that links into the AfriGIS mobility framework and you can be sure it won’t be the last. “We are constantly looking at expanding our portfolio of products and will make sure we address the needs of our clients going forward.” **TSB**

**Contact details:**  
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 Tel: +27-87-310-6400  
[products@afriGIS.co.za](mailto:products@afriGIS.co.za)



# Office printing: Not what it used to be

**Gone are the days when your office printer was merely a glorified photocopy machine. There are so many great machines on the market that offer a variety of features that it is hard to keep up.**

**W**here manufacturers differentiate themselves in today's market is in the value-add, service offering, and solution packages they can offer. So, when choosing your next multifunction device for the office, it may not be as simple as you think.

Mark Hiller, regional general manager of Lexmark International South Africa and English-speaking Africa concurs but notes that, increasingly, it is what you can do with the Multi-Function Device (MFD) that distinguishes it. "Does it have a touch screen? Can you integrate it into your core communications systems such as your file servers or your email? Can the MFD be the starting point for a process in your organisation? Can you route documents throughout the organisation directly from the MFD? Can you capture information from a document through the scanner and intelligently integrate it into your core business systems? These are all questions you need to ask."

#### **MFD's are the on-ramp' to and the 'off-ramp' from their digital environment**

Unfortunately, many companies do not understand the power they can harness from their devices and are stuck on the idea that it is just there to make copies. Large enterprises have, however, embraced the technology and it is making their life a lot easier. "Larger enterprises look for robust MFDs as the 'on-ramp' to and the 'off-ramp' from their digital environment. They are also investing in electronic content management systems and intelligent capture solutions.

These decisions are normally driven by lines of business rather than purely by IT. Small- to medium-sized enterprises are typically lagging behind and are not familiar with the potential of the devices. It would be wise to ask their IT partners to offer them the smart MFDs and enquire about the solutions that can be deployed. These devices can be used to link their traditional hard copy paper-based environment to



*Mark Hiller, Regional General Manager, Lexmark International South Africa*



their mainstream electronic communications platforms. Scan to email, scan to network and workflow functionality are all available, which can dramatically reduce processing time and also assist in managing the overload of paper-based documents and information.”

There are a number of unique and powerful solutions that can actually help people to grow their businesses by delivering industry-specific, scalable imaging and software solutions that simplify workflow and harness the power of information. This is still a printer we are talking about isn't it? “You usually have information and documents from different sources, possibly in different locations. Getting these in a structured form, to the right people, quickly and accurately can make or break a business. You often hear about businesses being inefficient, or not knowing what is going on, not serving their customers. At the core, most processes are quite simple. Using technology intelligently to support business activities is the name of the game. This includes capturing information from remote locations via a scanner and then routing it to a central location for efficient processing or approvals; reading all (or key) information from documents when capturing them and structuring them for easy reference later (e.g. goods received notes to support accounts receivable queries from customers); scanning documents directly to someone's email or to an archive direct from an MFD; attaching different documents to



## Gone are the days when your office printer was merely a glorified photocopy machine.

one common file so that all related information is together and routing documents through the various stages of approval.”

This has changed industry jargon and we now talk about processes rather than printers, and about information rather than data to drive decisions in business. But what does this all mean to you, the hard pressed businessperson on the coalface? “The device is the vehicle to move the data around, but the driver of this is the process, and it may be efficient or inefficient. In essence, all hard copy documents, and even soft copy files that are not on the organisations central enterprise resource planning system, are essentially ‘data’.

### Less than 20%, of data is accessible.

They do not become ‘information’ until they are structured or related to other pieces of data – then they become accessible and useful. We are surrounded by a wealth of data, but a very small percentage of it, typically less than 20%, is accessible. When we are talking to customers, we rarely talk about the device that can scan, copy, print or fax; we talk about what processes are happening in their organisation, what data resides in their business and how can we get it into the system so that it can get from person A, to B, to C to be approved or actioned, thereby driving decisions. How can we get the right information to the right person at the right time?” **TSB**

## Typical document management applications

- In-store retail credit applications captured and routed through to provincial and head office centres for review, approval and compliance with Fica.
- Capturing of account applications, loan applications for major banks, immediately routed to head office for review and then approval, dramatically shortening approval times. Also improved accuracy of all data and records required from the customer.
- Aggregation of multiple documents into one electronic file, rather than multiple photocopies on a file, for various transactions e.g. medical aid details.
- Capturing of proof-of-deliveries and archiving for easy retrieval against accounts receivable queries.
- Capturing of accounts payable invoices and matching against the purchase order records.
- Storing of standard forms on machines and printing these on demand on-site.

# Turning data into information



**We have all heard the old adage “whoever controls information controls the world.” This is exactly why the big companies are successful – they handle their data properly and turn it into useful information.**

**T**hat said, it can also be argued that they have the money to implement costly solutions to solve their data dilemmas. So, where does this leave the cash-strapped SMME? Are they forever doomed to languish in the mire of data overload without the advantage of gaining the insight and knowledge buried within? Angelina dos Santos-Barrett of data analytics company Innervation says no. “Most retailers can extract more value from their current data without embarking on expensive specialist projects. You don’t need to pay a lot of money for data you don’t already have, or hire a specialist team, you simply have to make better use of the assets already sitting around in your organisation.”

This makes sense as we are all gathering data, constantly. However, Dos Santos-Barrett believes that companies pigeon-hole this data and consider it only as sales and inventory data. “Once you start to match that with what you have in your marketing databases, your loyalty programme and maybe a CRM system, it becomes far more valuable. All you have to do is tie it all together.”

It all makes sense, but drilling down into the various resources and databases would, at first glance, seem time consuming

and complex. Dos Santos-Barrett advises that one should start small and build your solution over time. “It’s literally just about finding a few unique pieces of information like a name, a mobile number, an email address or a masked credit card number. Once you’ve matched these across a few databases, you can start to build a picture of your customers that can feed into your development of new products and services.”

This opens up a raft of new opportunities and, especially, when one looks at the information gleaned from loyalty programmes. “If your loyalty information is sitting in an isolated database, you are really not getting value out of that investment,” she says. “You have their name, their card number and the fact that they’ve made at least one purchase – but are you looking at exactly how many times they’ve been through your tills and what they bought? Do you have an understanding of what might motivate them to come back?”

## Your customers gives you valuable information

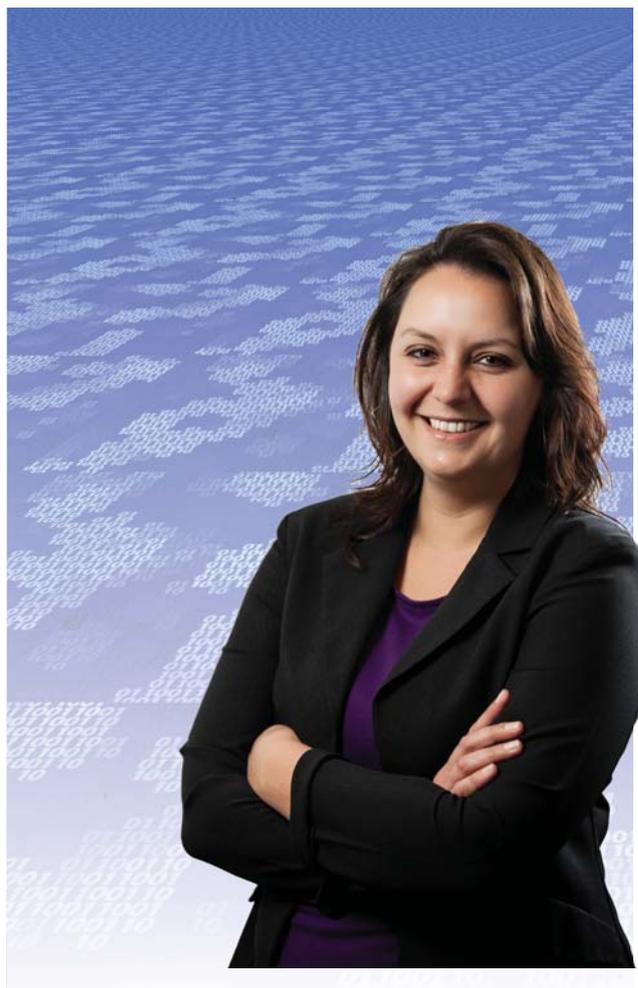
Too many retailers, she says, limit their engagement with loyalty customers to an occasional “Hi, you’ve earned R50 credit” – and many don’t even do that. “If you’re not regularly sending relevant offers and reminders, you’re relying on the

customer to remember to present their card at each transaction – and many will quickly lose interest. If you're counting on your cashiers to remind people, you have to consider that they're also under pressure to move the queue through the till as quickly as possible, and there's no time for a long conversation about the loyalty programme."

The solution here is then to use the information gathered at the till to maintain customer engagement beyond the till. "Your customers give you valuable information about themselves – you have to use it creatively to give them something valuable back. It's pointless having a loyalty programme, for example, if you're sending the same generic set of special offers to all your loyalty customers. If I regularly buy the same premium brand of coffee, sending me 20% off your chicory-blend house brand is helping nobody.

"You can only give your customers what they want when you understand who they are," says Dos Santos-Barrett. "And all you need to do that is a relatively simple strategy, and a simple interface to your data. Retailers can start small and still see big results." **TSB**

**Most retailers can extract more value from their current data without embarking on expensive specialist projects.**



Angelina dos Santos-Barrett, Loyalty Product Manager, Innervation



## So how much data is out there? In just 60 seconds

- Nearly 640 terabytes of IP data is transferred across the globe.
- Google receives more than two million search queries
- YouTube video service will play 1.3 million videos
- Amazon processes around \$83,000 in sales
- Over six million Facebook views will have been made
- 100 000 Tweets posted
- 204 million e-mails are sent.

Source: Intel

# Integrated reporting: one report to rule them all

By Tiani Annandale, senior consultant, Cortell Corporate Performance Management



## Integrated reporting defined

**First there was sustainability reporting and now there is integrated reporting. And it's set to become the way companies report their annual financial and sustainability information. The aim of an integrated report is to clearly and concisely tell the organisation's stakeholders about the company and its strategy and risks, linking its financial and sustainability performance in a way that gives stakeholders a holistic view of the organisation and its future prospects.**

Sometimes we get so involved in the daily grind of business we neglect our due diligence and have to play catch-up at the end of the cycle to get all our mandatory reporting done. This creates stress and impacts on productivity which is something we can do without. Tiani Annandale from Cortell Corporate Performance Management has some insight into how to make this process simpler and faster, and shared her thoughts with TechSmart Business.

**W**hile integrated reporting is a legal requirement for all Johannesburg Stock Exchange (JSE)-listed companies in South Africa, today's business environment demands more transparency and good governance from all companies. Integrated reporting combines financial and non-financial information, such as environmental, social as well as corporate governance, into one consolidated report.



This is driven largely by the King III report, a globally accepted business reporting framework which states that "governance, strategy and sustainability are inseparable". The benefits to organisations that embark on Integrated Reporting initiatives are enormous. The reports provide overall clarity where stakeholders can relate sustainability risks and choices of its certain business endeavours to the financial compromises an organisation has to make to uphold momentum in the marketplace. Intelligent decisions can then be made based on information that has been validated based on the expectations amongst stakeholders and the company as a whole.



## The benefits to organisations that embark on integrated reporting initiatives are enormous.

### Consolidating all relevant information is a mammoth task

But here lies the problem. Any financial executive tasked with Integrated Reporting will tell you that to consolidate all the relevant information buried in emails, spreadsheets and word documents scattered across databases in an organisations' enterprise is a mammoth task. It requires weeks of collating information, verifying, updating and auditing and continuous buy-in from key staff and top management, before the final product is sent off to the printers or uploaded onto the company website.

Importantly, it also requires an unwavering passion from relevant stakeholders and top-level executives on the long-term sustainability of the company through issues relating to corporate social investment and not just the numbers.

However, despite many organisations' best efforts, traditional methods of compiling integrated reports are fraught with challenges with tight deadlines, stressful conditions and the threat from human error, manual integrated reporting becomes time consuming and inefficient.

While the concept of integrated reporting is a relatively new one and there are no universally agreed standards yet, the South African Integrated Reporting Committee (IRC) is in the process of developing a local standard. This standard is largely based on King III and incorporates XBRL, or eXtensible Business Reporting Language, a reporting format to drive an open, global standard for business reporting and exchanging business information.

While XBRL delivers many benefits, especially improving the comparability and consistency of business information to address transparency concerns and deliver information in a universally understandable format, the creation of this language has added yet another challenge to the integrated reporting process. Although it is not a legal requirement in South Africa yet, it is only a matter of time and any multinational organisation operating in South Africa that is listed on the New York Stock Exchange will have to implement this type of reporting.

So how can organisations improve their business processes internally with industry standard metrics to ease the manual

burden of integrated reporting while developing financial and sustainability strategies that will improve the bottom line?

### Not all software are created equal

Today, there are software solutions available that revolutionises the continuous process of integrated reporting by combining sound and legally compliant business processes, controls and technology. However, not all integrated reporting software are created equal. There are several factors to look out for to ensure reduced risk and enhanced compliance.

The solution should be squarely focussed on automation through collaboration from a central secure database repository that brings together all the data, financial and non-financial, from multiple sources across the enterprise. This methodology ensures that there is only one single version of the documents in the reporting process, which in turn guarantees greater data accuracy and compliance with relevant governance regulations.

### Giving stakeholders the business critical information to make better decisions

Contributors must be able to log in and work securely in a collaborative environment and participate in the document building process with a detailed audit trail as to what and when changes were incorporated. This includes work flow and version control as well as a fully integrated XBRL tagging system that will comply with not so distant future industry regulations.

Perhaps the most important and often overlooked factor is ease of use. The reason why most integrated reporting tools fail is because the interface is not familiar to the average employee, and despite in-house training, a low adoption rate within an organisation still results.

In closing, while integrated reporting is a formidable task for any organisation, with the right financial reporting solution it is possible to automate this process. This not only reduces risk, but allows management to improve internal and external business processes, and gives stakeholders the business critical information to make better decisions through accurate data analysis that is verified and audited. **TSB**

# SA e-commerce reaches tipping point



**As South African e-commerce gains momentum, retailers can expand their reach significantly by adding online and mobile channels and picking the right technology and fulfilment partners for the journey.**

**A**ccording to a 2012 report by technology research company World Wide Worx (WWW), e-commerce growth is accelerating. The study predicts that the Internet economy will increase its contribution to the overall economy from 2% in 2011 (R59 billion), to as much as 2.5% by 2016.

The report's author, Arthur Goldstuck, notes that this can be explained at the hand of a 'digital participation curve'. "It takes up to five years before new internet users gain the confidence and experience in the medium to become active participants in the internet economy. With the number of internet users having accelerated from 2008, the number of experienced users will begin accelerating in 2013 and the trend will continue until 2018."

## In the trenches

The experience of Cape-based e-commerce developer Realmdigital broadly corroborates this, says CEO Wesley Lynch. "South Africans are becoming far more comfortable buying online, with value offerings like Groupon's group buying playing a crucial role in making it more attractive.



*Wesley Lynch, CEO, Realmdigital*

"The natural appeal of e-commerce is the accessibility it gives products, something that store-only retailers cannot offer. The convenience of buying from anywhere in the world and having a physical product delivered at your doorstep is hard to beat."





**The natural appeal of e-commerce is the accessibility it gives products, something that store-only retailers cannot offer.**

The market for digital products has further grown substantially, with music, books and other downloads leading the way. He adds, "The instant gratification of a digital download is even more of an incentive to buy online."

#### Online boost

Academic book retailer Van Schaik confirms excellent uptake of its online presence, as well as a significant change in trading patterns and a net growth in sales.

The company says a massive increase in website traffic occurred after Realmdigital took over its development in 2011. "From 5 000 unique visitors per month 12 months ago, the site now registers on average 340 000 visitors per month," says digital manager Melvin Kaabwe, adding that the company has had to invest in considerable extra capacity to manage the load.

Besides the effect of a new partner, he puts it down to a combination of progressively cheaper internet access over time and the proliferation of non-PC devices sold with data bundles.

The prevalence of low-cost BlackBerrys on campuses – for two years the youth's favourite phone according to the Sunday Times Generation Next survey – has also helped. "We view mobile commerce as key to accessing this market, and a boon for our serious entry into e-commerce as an

academic resource. Making the site as accessible as possible to mobile users was one of the formative briefs for the site, and Realmdigital did that for us."

#### Opportunity now

If retailers dither about the online investment and the additional cost of selling (including distribution to customers), they should consider the spike in volumes they are likely to experience, says Lynch.

While Van Schaik's increase in online sales has been less pronounced than its increase in visitors (30% up year-on-year in February), Lynch says retailers must not expect to be Amazons overnight. "That is a healthy increase in anyone's terms," he says. "In addition, online retail is now pretty competitive, with Kalahari, Loot, Wantitall and others all making their mark – and there can be no clearer argument for getting online now."

Kaabwe concedes other extraneous factors. "Only about 2% of South Africans are shopping online 'properly', in the sense of using credit cards. The course most likely to lend itself to card purchases is the MBA – students are a more affluent demographic."

#### In the future

With e-commerce finally shaping up to be the force it was always expected to become, real-world retailers will have to work out how to compete with a new generation of leaders – Amazon, Kalahari, Wantitall, Loot and many others.

At the heart of embarking on this new direction will be choosing the right digital partner, one that can greatly assist with working out a winning e-commerce and marketing strategy that will get the volumes to justify the leap into new territory.

With competition intensifying, Van Schaik is currently piloting a number of initiatives that will give it an edge over competitors, including multiple digital entry points to the company's catalogue, any-device downloads of texts, same-day delivery and extra call centre capacity. **TSB**

# BluWave: Simple, affordable, CRM

**B**luWave Software was started some 24 years ago and evolving into the company it is today has taken dedication and staying power. From starting out with a simple DOS product, it has grown into a leading developer with a new generation cloud-based customer relationship management (CRM) solution – BluWave CRM.

Development began in 2009 and Bluwave CRM was launched in 2011. “Essentially, the product is a cloud-based version of our sales automation and CRM system,” says operations director Tania Cooke-Tonnesen. “We have focussed mainly on the sales side of the CRM product in the cloud, which is the first component of the system. There are a number of functions which allow you to develop quotes, chase new business, look after existing clients, and create mailing lists to name but a few. We are regularly adding new features to BluWave CRM and the product will continually evolve and, by the end of the year, there will be an after-sales service component.”

## Workflow is important

The best addition to the system must be the workflow component. This, according to Cooke-Tonnesen, is the automation of repetitive processes. “When I talk about process automation this could mean triggering activities, emails, or customer replies automatically. This can be instant, or timed to coincide with specific events. You could set up a mail to trigger to your mailing list on a weekly basis which will form the basis of a marketing campaign.”

The catchword in the IT industry today is the cloud. But this trend is merely the latest fashion or are there tangible, real-world benefits to be realised by both suppliers and customers alike? Cooke-Tonnesen, notes that it has made an incredible difference to software companies in general and has changed the way products are implemented.

“Products are cheaper to execute and run. All those costs associated with installing on desktops and keeping it running has fallen away. It basically removes costs and complexity from the implementation. For the user, the change has been immense. We have always had difficulty getting the sales



people to use the sales automation tool but they now see the benefits associated with using the product to its full potential. This has not always been the case as, asking representatives to use a CRM tool; it became an extra job they had to do when they got back to the office. Being on the road all day meant they did not have access to the system and had to consolidate all the information at the end of the day or week. Coupled to that, it had no on-the-road value as you could not access the data while visiting customers. Today, however, with a tablet device you carry your CRM system with you. You can show the client information, update progress on the fly, do quotes, etc. You can set up an automated trigger that will send the client a quote, automatically attach brochures specific to the client, and include an order form. The move to the cloud has made things infinitely easier for everyone concerned.”

## To the point

BluWave has positioned the system with ease of use and competitive pricing at the forefront. “Being a local product we are there to literally switch your system on. We will then ensure that your staff knows exactly how to use it and derive the best benefit from all the different features. Best of all, this is not going to break your budget and we are squarely aimed at the SMME market. We can have you up and running in less than a month.” **TSB**

## Contact details:

Tel: +27-11-462-6871  
www.bluwave.co.za

**The cloud has made things infinitely easier and cheaper**  
**The catchword in the IT industry today is the cloud.**

If you are looking for total protection in an ever more infected digital environment you need look no further than ESET. For over 25 years they have been safeguarding business with a unified scanning core that supports a vast array of operating systems and platforms with products that have earned multiple awards and accolades.




# Total peace of mind



Carey van Vlaanderen, CEO, ESET

**I**n a nutshell, ESET provides security software for enterprises and consumers. The products on offer rank among the world's most advanced security solutions, proven by multiple prestigious awards. ESET NOD32 Antivirus consistently achieves the highest accolades in all types of comparative testing, and is the heart of the virus and spyware detection in ESET Smart Security. ESET Smart Security is an integrated antivirus, antispyware, anti-spam and personal firewall solution that combines accuracy, speed and an extremely small system footprint to create the most effective security solution in the industry. Both products have an exceptionally efficient code base, allowing faster scanning that doesn't slow down computers or networks.

## Rise in mobile malware attacks

At the helm of ESET Southern Africa is industry veteran Carey van Vlaanderen. During her tenure as CEO it has been her vision to accelerate growth. This vision has seen ESET expand into 18 African countries, working with 3 600 partners. That said, Van Vlaanderen is not resting on her laurels and is

pursuing ESET's goal of becoming the leading provider of antivirus and software related solutions in Africa.

With this in mind, ESET is exploring new markets, and, in light of the rising number of cyber attacks targeting the Android operating system in recent months, have announced the launch of its new ESET Mobile Security app for local Android smartphone and tablet users.

According to a threat report from analysts at leading research firm, Juniper, there has been a sharp 614% rise in mobile malware attacks since 2012, 92% of which specifically targeted at Android devices.

## Users unaware of threat to their phone

"As consumers we've become reliant on using our smartphones to store essential and personal information for all aspects of our lives," says Van Vlaanderen. "Android now being the world's most popular OS, makes it the perfect environment for cyber criminals to 'phish' for personal details and most users are completely unaware that their phone is open to cyber threat."

ESET solutions for smartphones and tablets protect company data and communication on the go and prevent its loss or exploitation. With ESET Mobile Security you can check all files for threats – opened or downloaded via Wi-Fi, and control costs by blocking unwanted calls in both directions – incoming and outgoing.

The advanced Anti-theft System allows location of the phone using GPS. In case of emergency, one can opt to delete all data, including messages and information on memory cards if the phone is lost or stolen. Whenever away from office, ESET Mobile Security protects your company data from unauthorised access or abuse. System vulnerabilities are kept in check using the security audit, allowing fast response to all security events through comprehensive logs and stats. **TSB**

# BlackBerry: How to successfully manage the BYOD trend

**Everyone understands that the phenomenon is here to stay, but not that many appreciate how difficult it is to control.**

**T**he IT industry is very seasonal and there are new catch phrases, acronyms and trends emerging all the time. At the moment, no matter where you go, or who you speak to, the “bring your own device” (BYOD) conundrum will more than likely make its way into the conversation.

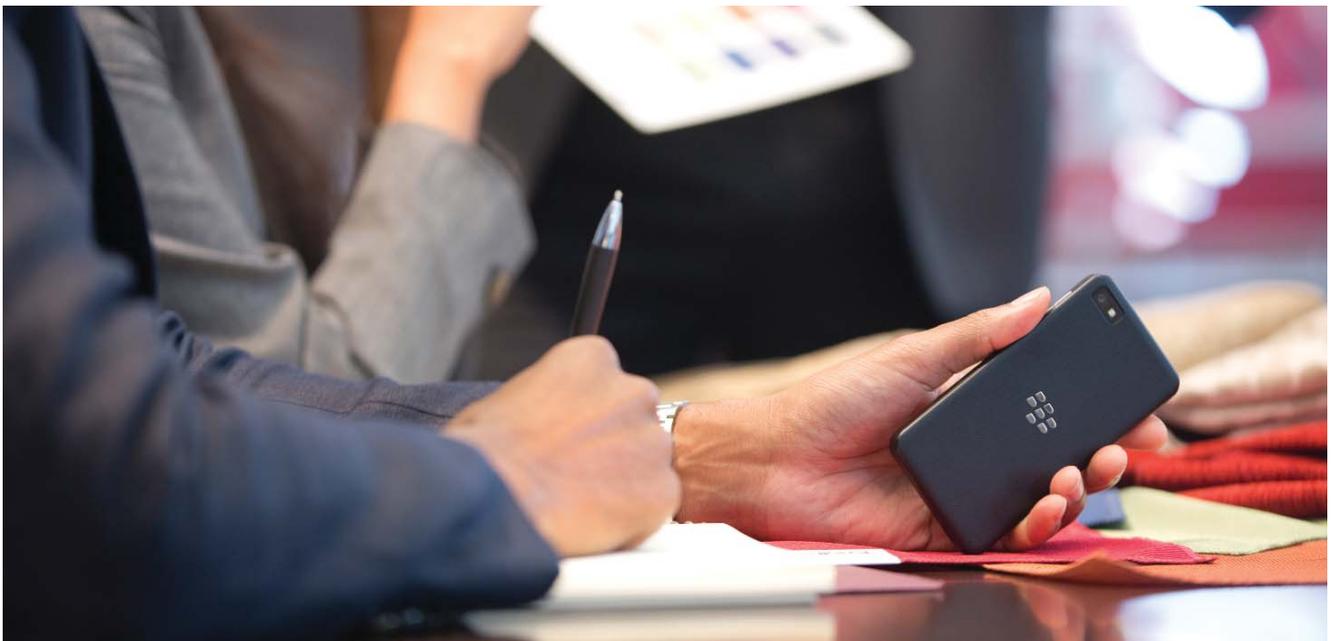
As with any technology there are pros and cons associated with BYOD. Companies have to define boundaries and rules without infringing on the privacy of their employees. This is a delicate balancing act where a company needs to minimise risk by creating equilibrium between the demands of business customers with the protection of sensitive data, all the while maintaining a consistent experience for productivity.

If anyone knows how to handle this particularly prickly problem it is Alexandra Zagury, MD for South and Southern Africa at BlackBerry. In her opinion, the common consensus in business is that BYOD can save money, and lots of it. “There



are those who worry that the biggest challenge of BYOD is increased information security risk. Irrespective of how the CIO or IT manager feels about BYOD, it is essential for any enterprise to develop a strategy for the inclusion of mobile devices in the business. This is especially true as the younger, connected generation graduate into today’s workforce.”

Having scrutinised the challenges faced and reservations held by companies, BlackBerry has engineered solutions that may just alleviate the fears of even the most sceptical individuals.



**At the moment, no matter where you go, or who you speak to, the bring your own device (BYOD) conundrum will more than likely make its way into the conversation.**



*Alexandra Zagury,  
MD for South and  
Southern Africa,  
BlackBerry.*

In direct response to the BYOD trend, BlackBerry Enterprise Service 10 (BES) has evolved to cater to the needs of businesses around the world. "We've met with CIOs and IT administrators and are heavily involved in the mobile landscape for business in a wide range of applications," says Zagury. "We have built our solution based on their needs and feedback."

#### BES 10 brings it all together

In an increasingly complex mobile world, BES 10 provides an integrated platform for large businesses to securely manage mobile devices. It provides a platform for IT managers to manage, provision, and activate devices, administer controls, push mandatory applications, and more, all from a single web-based console. "That said, BES 10 brings together not only BlackBerry smartphones and tablets, but other device platforms that employees are bringing into the workplace. In particular, network administrators can add and import iOS and Android users, create group memberships, view user and device information, manage applications, and much more."



With the BES 10 version 10.1 update, BlackBerry has added a wealth of new features such as 'regulated-level' IT policy controls and settings. "This is aimed at government agencies and customers in regulated industries who require an advanced level of security, control and logging of BlackBerry 10 smartphones. It also allows customers to support BlackBerry 10 and BlackBerry OS smartphones from a single server."

With 10.1, BlackBerry has also unveiled BlackBerry Enterprise Instant Messaging (Enterprise IM) 3.0, a free update of the company's enterprise instant messaging solution, enabling customers with BlackBerry 10 smartphones to securely communicate over Microsoft Lync, Microsoft Office Communication Server or IBM Lotus Sametime.

#### Seamless separation of work and personal data

BYOD has resulted in a growing need to manage both work and personal profiles on the same mobile device. With BYOD, some businesses have enabled employees to use personal devices for work purposes. "This trend increases the challenges of protecting corporate data, which can be compromised due to malware attacks, personal use applications, and other susceptibilities. BlackBerry 10 has the capability to help address this."

BlackBerry 10 smartphones managed by BES 10 have been tightly integrated with BlackBerry Balance technology, which is designed to separate corporate and personal data within the operating system. "On a corporate level, businesses can now draw a defined line between work and personal perimeters, thus separating the respective applications, connections, and data. BlackBerry Balance provides end users with a seamless, gesture-based transition between their work and personal data."

#### Security capabilities across mobile platforms

In addition to the existing enterprise mobility management capabilities of BES 10, BlackBerry is expanding its security with Secure Work Space for iOS and Android devices. "This offering extends BlackBerry security to third party devices, essentially creating a separate and secure work space to hold corporate apps, work email, calendar, contacts, and more, without the need for a third party MDM provider, a costly VPN infrastructure or multiple vendors."

We all understand that BYOD is here to stay, and will, inevitably become more prominent. How you choose to handle the deluge is up to you, but it is clear that you cannot bury your head in the sand and hope it all goes away. **TSB**

# Doing it right - Cloud computing

By Jed Hewson, Director, 1Stream

The cloud. It's everywhere, and nowhere, all at the same time. It connects us, makes life easier and drives productivity. That is what the pundits would have us believe, but is it true? Could it be that simple? Do we really need this technology complicating our lives? According to Jed Hewson, director of 1Stream, it is not an elective anymore, its vital to your company going forward.



Jed Hewson, Director, 1Stream

**I**f you were to ask a roomful of IT professionals what the cloud is, and whether businesses should move some (or all) of their processes to the cloud – you are likely to get a diverse range of answers. For me, cloud computing is simply using files, applications or services over the internet – and it's crucial. The benefits are numerous. Costs are cut (by up to 40% or more), businesses become more agile, more scalable and more efficient.

It's no wonder that the market is becoming increasingly competitive. But one has to question why companies are entering and exiting the cloud space so rapidly, with only a few that stand the test of time.

If we look at the cloud 'giants' – Facebook, Amazon, Dropbox, Salesforce – they were the pioneers in the field. All of them were, as many of their CEOs put it, 'born in the cloud'. They

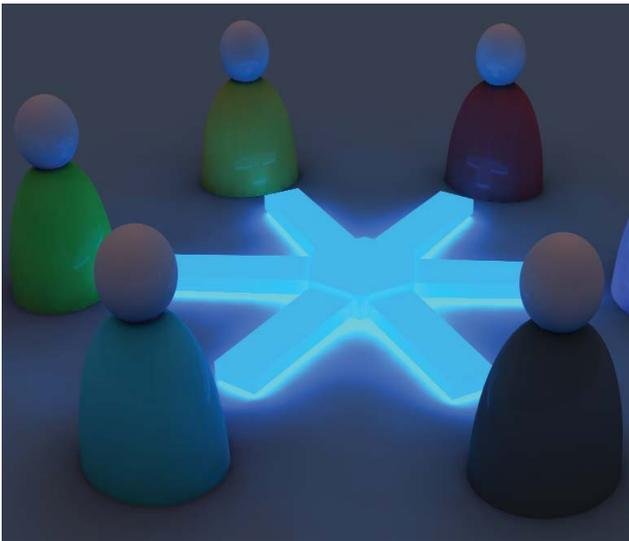


**For me, cloud computing is simply using files, applications or services over the internet – and it's crucial.**

were the ones who entered the market in the early days, and they've firmly secured their position there. There is, after all, something to be said for mastering the learning curve ahead of everybody else.

#### **Born in the cloud**

I've seen it in the IT industry, time and time again. There is no such thing as an 'off the shelf' hosted platform – it requires time and skill and true mastery. Many companies simply attempt to sell a cloud-based product that they've cobbled



together, but they lack the knowledge and understanding that comes from pioneering a solution. They become 'box-droppers' that simply drop the minimal on-site equipment needed to operate the remote system, along with basic instructions... never to be heard of again. I've even seen companies outsource the training needed to run a system. My question is that if they can't train you, how will they support you?

If I had to narrow the key to cloud success down to a single factor, I would have to say that it's time. We spent years

developing solid processes to ensure that the offering we were taking to market was complete and in full working order. Once we had established that, we could then focus on efforts on garnering new clients. If you are doing it the other way around – focusing on sales, and neglecting the development – you will soon find that you have to spend your days fixing bugs and adjusting the product.

The problem with any technology is that it looks simple. For us, as we've matured, our offering has become a commoditised, defined product. We can roll out, configure and deliver a simple solution in a very short period of time. This does not mean that the product has become simplified or easier to duplicate. And it certainly doesn't mean that we spent less time serving our customers – they still need the same levels of support now as they did six years ago.

#### **Behind the scenes, the engine is extremely complex**

I can compare it to the early days of the automobile. When cars were still a novelty, everyone who bought a car had to hire a chauffeur to do their driving. The reason was because the car would often break down, and a chauffeur (who usually had mechanical training) was needed to get it up and running again as well take care of the regular maintenance required. Nowadays, everyone can drive their own car because the complexity of it has become abstracted from the user – but behind the scenes, the engine is still extremely complex. It is exactly the same with businesses. We make sure that our products are easy to use – but we still retain the knowledge of all the complexities that go along with them. It's the key differentiator of every hosted company worth its salt.

Likewise, we know that the companies we serve require effortless efficiencies. Just like we buy a car and expect airbags, air-conditioning, seatbelts, electric windows... businesses want increasingly complex 'added extras' as a standard part of any package, and we need the technical prowess to install them on demand.

Success comes from knowing your business and the technology inside and out. We find that providers who have the right experience are trumping big businesses when it comes to service delivery and expertise. **TSB**



## BYOD IS A FACT, BAD A REALITY.

*With the connected lifestyle being a fact of life in the consumer market nowadays corporate customer are adopting the concept of bring your own device (BYOD. Now, the question for companies is whether this means that it's time to embrace 'bring any device' (BAD).*

The market has embraced the BYOD trend with mobile and tablet devices. "In South Africa there has been a significant uptake within the Finance, Commercial and Telco space. The Public, Manufacturing and Resources industries are following this trend and we are likely to see a huge uptake," says Paulo Ferreira, Head of Enterprise Mobility at Samsung Electronics South Africa. By and large, South African

network, raising security, management, interoperability, and integration concerns.

Many companies do not yet have an official BYOD policy implemented and are still in the discovery phase. As a result, corporate data can be exposed to security threats. However, many organisations ignore the threat and opt instead to merely manage the risk as it appears. The corporate challenges are threefold: the security issues surrounding data, apps and viruses; the management of the devices; and wireless infrastructure readiness.

The rapid adoption of smartphones and tablets by consumers has led to the growth of Android in particular. "The Android platform has been gaining significant market share. But its biggest appeal, the number of manufacturers supporting it on their devices, is also become arguably one of its biggest corporate challenges," continues Ferreira. This abundance

of mobile devices, all running their own variant of Android, is raising concerns about fragmentation. Each manufacturer has implemented some unique tweaks and

customisations to the platform that offers a plethora of choices to consumers. However, fewer have addressed the Corporate IT criteria for acceptable end-user computing device characteristics. This makes it difficult to ensure that any device entering the corporate network is enterprise-ready and can integrate smoothly with existing security and management standards and systems.

The next phase of BYOD is one that will see a push towards Android that has been designed to be compatible with enterprise networks. "The mobile phone manufacturer who is in a position to offer this by giving IT departments the ability to securely manage these devices will be the one that will see a bigger adoption of its products", comments Ferreira. "Furthermore, the next generation of users will likely move from laptops to hybrids – high-end tablets with attached keyboards – and this trend is in turn likely to follow the move towards bring your own Apps (BYOA), which offers yet another challenge for IT administrators to manage."

The manufacturer must also be in a position to assist the company in addressing the challenges around BYOD in the corporate



companies are being more flexible about BYOD, but this leaves them in the position of having multiple devices running a variety of operating systems entering their



**The corporate BYOD challenges are threefold: the security issues surrounding data, apps and viruses; the management of the devices; and wireless network readiness.**

*Samsung sees its role in BYOD as providing different options when it comes to hardware selection, including varied form factors, screen sizes and operating platforms to really drive an all-encompassing solution customised for the specific business environment.*

environment. These range from security compliancy and include addressing issues around connectivity and collaboration, line of business applications, messaging, virtualisation, and providing support for productivity solutions such as unified communications. Essentially, IT management software has moved beyond only supporting a single technology to embracing multiple operating systems.

“Embracing multiple operating systems means choosing a provider that can support this requirement. As a result, Samsung sees its role in BYOD as very much one of providing different options when it comes to hardware selection – options that include varied form factors, screen sizes and operating platforms to really drive an all encompassing solution customised for the specific business environment. Where Microsoft Windows is preferred to Android, our ATIV range which represents the convergence of PC and mobile technologies, would be the perfect fit.” comments Ferreira.”

The concept of BYOD is here to stay, but the challenge to SME businesses is that managing multiple devices, and the tools

needed for it could be costly. It needs to be supported in a way that offers a consistent Android or other platforms to manage and be interoperable enough to work on all enterprise-class solutions. This will see companies recommending their employees purchase devices from the manufacturer that is able to provide this experience. It further allows Corporate IT departments to standardise and offer a pragmatic and balanced device selection guideline for the end-users.

When it comes time to select a solutions provider that can offer these services, companies need to also consider the range of product offerings available that could make the integration process into its systems more manageable. Considerations include the different form factors of devices, the need of the user to consume or create content and the availability and of the correct business applications.

Ultimately, it is about whether CIOs allow their environments to try and accommodate every mobile platform in the market or choose to align with those devices that are truly ready for the enterprise. Giving these decision-makers the peace of mind

that mobile devices are ready for managed security lies at the heart of the matter. It will be the manufacturer that offers this as a standard value proposition that will become successful in this next evolution of BYOD.



Paulo Ferreira, head of Enterprise Mobility, Samsung South Africa.

# The importance of backup and recovery for mid-sized businesses

By Gareth Tudor, CEO, Altonet



Gareth Tudor, CEO, Altonet

**One aspect that is often overlooked that can bring a business to its knees, irrespective of its past and current successes, is the lack of a robust backup and recovery strategy.**

**S**tarting any new business in today's volatile economy is a formidable challenge. It is estimated that at least 50% of them fail within the first five years. The businesses that do survive beyond those crucial years have to carefully refine their business processes and operations, and in particular how they manage and protect their information assets.

One aspect that is often overlooked that can bring a business to its knees, irrespective of its past and current successes, is the lack of a robust backup and recovery strategy to cater for their exponential growth of business data.

While most companies today have some type of backup strategy in place, not all backup solutions are created equal. In fact, many fall short of meeting the most basic tried and tested methodologies to securely backup and recover enterprise-wide information.

## Public cloud offerings are vulnerable

Some organisations use one or a combination of in-house hardware, tape libraries, portable hard drives and memory sticks to back up their data. Only too often, such backups are done on a 'as and when' basis instead of according to a fixed timetable. This can lead to missed data, duplication of data and data loss from hard disk drive failures, error-prone tape-based processes, power surges, loss or theft. Others opt for public cloud offerings, which leave them vulnerable to data compromises from hackers. They also run the risk of only having intermittent access to their business-critical information at crucial points in sales cycles with no accountability from their service provider 'somewhere' in the cloud.

While there are many horror stories about what could happen if a business suffers data loss, companies that aren't able to resume operations within a few days of losing business-critical information are likely to suffer dips in revenue and reputational risk with their customers. It is estimated that 65% of businesses that suffer a significant loss of data do not survive beyond a further 12-month period.



As small businesses grow to become mid-sized companies, it is vital for them to have rigid and automated operational backup and recovery strategies in place that will allow them to safely and securely store their data. Compliance and governance also becomes a greater issue as companies drive business value, so gaining visibility over their technology infrastructures is also a legal obligation that these organisations have to satisfy. In addition, many large customers will require companies to certify their compliance to strict risk management which will include disciplined and provable strategies for data protection.

#### Automated cloud-based backup and recovery solutions reduce cost

These requirements place an additional burden on companies. Most growing organisations need all their human resources at their disposal to keep up with the pace of the expansion and cannot add additional resources to focus on rigorously backing up critical data on a continuous basis. Additionally, the lack of visibility over which files are business-critical versus those that are more transitory is an increasing organisational risk.

As the technology landscape continues to evolve, specialist cloud computing providers have emerged that offer secure off-site cloud data protection solutions backed by service level agreements (SLAs). These next-generation cloud solutions provide organisations fast, assured and automated backup of their mission critical information with the ability to recover lost data via web interface in a timely manner. Automated cloud-based backup and recovery solutions not only reduce cost and administrative headaches, but frees up staff to focus on growing the business.

In closing, when going the cloud-based route it is important to ensure that service providers demonstrate the strictest processes and technologies to safeguard a company's data. This not only includes physical security of its data centres and acts of nature, but also written policies for pro-active monitoring, data encryption in transit, encryption during storage, controlled access and verification of data integrity. If these requirements are satisfied, growing businesses can ensure that their journey to complete backup and recovery peace of mind is a successful one. **TSB**

## Advantages to leveraging the cloud

- By opting for cloud backup, businesses know that their data is stored in a reliable, off-site, redundant environment in line with compliance and governance regulations.
- Some providers offer flexible retention and deployment configuration depending on an organisation's requirements, be it on-premises, cloud-based or hybrid.
- Reputable cloud providers offer companies advanced backup and restore capabilities, with the ability to roll back their backups to restore previous versions of the same documents, if the need arises, especially if they merely have a need to recover corrupted data and not the whole data set.
- Due to the economies of scale within the provider environment, backing up in the cloud reduces the costs associated with a dedicated backup infrastructure, simplifies IT budgeting. Many offer budget flexibility with 'pay as you protect' offerings.
- Most providers offer scheduling of backups, which reduces human error in backup procedures.
- SLAs are also top of mind for growing businesses to ensure that there is business continuity and respectable cloud providers offer users pro-active, web-based monitoring and around the clock operational support to manage possible backup errors and detect possible vulnerabilities.



# Six steps to taking the complexity out of moving to the cloud

**We have, and probably will continue to, speak at length about the cloud. Pros, cons, strengths and weaknesses, the debate still rages. That said, the actual process of moving to this ethereal real estate could prove to be intimidating if you are doing it for the first time. With that in mind, Roelof Louw, cloud expert at T-Systems gives us six easy steps to accomplish the task with confidence.**

**O**rganisations considering a move to the cloud are often hesitant to do so, as the process can seem daunting and fraught with complexity. Aside from this, there are the ever-present questions around bandwidth availability, speed and reliability, which can affect cloud services, as well as security concerns around data hosted outside of a company's control. Integration and change management are further issues that need to be addressed.

However, moving to the cloud need not be the complicated process it is made out to be. By following step one to five, and then taking one step further with a Proof of Concept (PoC), organisations can take the complexity out of moving to the cloud and mitigate the risk of cloud migration, ensuring a smooth transition and uninterrupted services.

## **Step 1: Define the business case**

While a move to the cloud need not be overly complex, it remains a big decision and one that could severely affect services and the entire organisation. For this reason, before any move to the cloud is even considered, organisations need to define the business case for migrating to the cloud. If there is no business case, organisations should not be moving to the cloud, as it will not deliver value. The business value or benefit that organisations expect to attain from the cloud needs to be clearly defined and laid out, so that a cloud strategy can be built around this and have an end goal in mind. This will not only define the path going forward, but will also provide a metric upon which to measure success.



*Roelof Louw, Cloud Expert, T-Systems*

## **Step 2: Consult the experts**

There are many different cloud providers out there, all offering different aspects of cloud services and all with different areas of focus. Selecting the right services from the right provider can be a complex process. Consultancy services will not only help you to select the correct solutions, but will also assist with the other steps in the process of migrating to the cloud. From cloud readiness assessments to creating the roadmap for implementation and everything in between, partnering with expert consultants is possibly the single most important way of removing the complexity of a cloud migration.

## **Step 3: Consider the application and process environment**

Before making a move to the cloud it is vital to conduct an assessment of the total business process and application landscape, and the existing IT infrastructure. Your consulting partner can assist here, to ensure that an organisation-wide assessment takes place, including business processes, IT and services. This then enables organisations to understand what services and applications can be moved to the cloud,



how they can be migrated to the cloud, and what changes, re-engineering or upgrades need to take place on the infrastructure side to facilitate this move.

#### Step 4: Make the public/private/hybrid decision

Once an assessment had been done on which applications and services can be moved to the cloud, a decision must be made whether to implement a private cloud, utilise the public cloud or adopt a hybrid model of both. From a public cloud perspective, it is necessary to understand the regulations and legalities around your data, and whether or not there are any restrictions on the location of that stored data. Confidential information is not suitable for storage in public cloud, as laws like the Protection of Personal Information (PoPI) Act require stringent security and locally stored information. The private cloud provides great security as the data is stored in a specified site and security can be heightened, but this obviously involves cost considerations. For this reason, many organisations adopt a hybrid approach, with public cloud solutions used for non-confidential, non-business critical information, and a private cloud solution for sensitive and confidential information. Your consulting partner will be able to advise here as well.

#### Step 5: Develop the cloud roadmap

Once the assessment process is complete and the decision regarding public versus private cloud has been agreed upon,



a cloud roadmap should be developed. This roadmap should be based on the business case developed in step one, and should outline the strategy for transformation, migration and integration, with the environment that has been upgraded as necessary. This roadmap also outlines which applications and services will be moved into the cloud and the timeframe for doing so. It is not advisable to migrate 100% of the environment into the cloud in a single move, as integration needs to be smooth and services cannot be disrupted. The roadmap will outline the phases and approach for conducting this migration.

#### Step 6: Proof of concept

A PoC, while not absolutely necessary, can be useful before migrating to the cloud. By embarking on a PoC, the systems run parallel, as they were previously and in the cloud, offering an opportunity to troubleshoot any potential issues and providing assurance of a smooth transition. While applications can be tested in a PoC environment, it is often more useful to test the different service models and provisioning, as moving to the cloud changes not only the environment, but billing and expenses as well. The PoC can help organisations to understand and identify any challenges or changes that need to be made before the environment is migrated. It also allows for testing of the changes to processes and applications that must be made when moving to a cloud model. By identifying any problems before migration, the transition can be made seamlessly, so that when the cloud environment goes live, all issues have already been resolved and addressed. Most reputable cloud providers will offer a PoC as a free service, to prove the usefulness and benefits of their solution, to enable users to streamline their environment before the move.

#### To the point

Cloud computing is a technology platform that the majority of organisations are considering, if not actively seeking to migrate to. While the process may seem complex, and the risks involved with moving to cloud services may be a factor, by following these six steps and following them with a PoC, organisations can ensure that their transition is smooth and seamless. Partnering with expert consultants can also dramatically ease the complexity and ensure that organisations can optimally leverage the benefits of the cloud to their specific organisation without disrupting services. **TSB**



# Managing the messaging platform migration lifecycle

By Chris Hathaway, Director, Soarsoft Africa

**The mere thought of a messaging platform migration has sent many operational managers and IT administrators running for the hills. Messaging is the lifeblood of the organisation and in the past, it impacted every corner of the business and was a highly risky and challenging initiative to ensure everyday business operations were unaffected.**

**T**his notion has changed somewhat. With the advent of cloud computing and the regular version refresh cycles for vendors like Microsoft that embrace new collaboration methods and cloud-based options, it is gathering a new momentum due to a unique combination of business and technology drivers.

In fact, organisations that run leading platforms like Microsoft's flagship solution, Exchange, should no longer see migrations

as a once-off event, but rather as a continuous process that is aligned with commercial, organisational and technology business needs.

**The most efficient or cost-effective deployment model could be a 'hybrid' cloud deployment**

Cloud and hybrid deployments are also driving the need for a shift in how migrations are performed, perceived and managed by organisations which are rethinking how email should be actualised in a public or private cloud. However, it is often only when the process is in motion that they realise that the most efficient or cost-effective deployment model could be a 'hybrid' cloud deployment.

Hybrid deployments enable organisations to optimise where they host their user mailboxes. Often large numbers of users are external or remote 'desk-less' resources and their mailboxes are more suitable for a cloud environment, whilst other users are best to be hosted on site. The key to a successful

email migration is to manage it as a transformation cycle, applying best practice methodologies and proven technology, combined with a knowledgeable practised advisor.

Today, businesses must adopt an approach to email migration that will provide a repeatable formula for success via a single investment rather than viewing the process as a once-off event.

### The most important phase is deciding on what to migrate where, when and how

Binary Tree, distributors of global messaging platform migration solutions with experience spanning 20 years, is exclusively distributed in South Africa by SoarSoft Africa. The company has adopted Binary Tree's revolutionary SMART migration methodology which combines technology and guidance with the right formula for successfully managing the Microsoft Exchange transformation life cycle.

The SMART approach dictates the use of superior, proven technologies and partners to ensure that the migration is started with proper discussion and planning. This is followed by messaging, the most basic and critical component of an organisations' infrastructure and together with a trusted advisor, companies are able to select the most suited platform and benchmarks for what constitutes a successful migration.

Therein lies the rub. There must be a thorough analysis of the messaging infrastructure to establish what is the most important to the business. This comprehensive collection will illustrate the complex and unique nature of the messaging environment, consisting of users, servers, policies, workflow and content.

The most important phase of Binary Tree's SMART methodology is deciding on what to migrate where, when and how. This rationalisation comes from mapping the results of the comprehensive analysis of the business requirements and promotes the optimisation of the migration process.

By employing the SMART methodology, businesses are automatically transforming the way they approach future migrations. As messaging platforms continue to evolve and the technologies supporting them continue to shift, it will become more advantageous for companies to adopt the ability to continuously transform their infrastructures. Maintaining a competitive edge is at the centre of what makes



*Chris Hathaway, Director, Soarsoft Africa*

companies leaders, and innovation is traditionally what drives the evolution of messaging platforms to deliver the capabilities that keep users happy, productive and mobile.

### To the point

In closing, many view Exchange and other messaging platforms as a commodity that operate on their own with limited administration and do not need special attention, but this is not the case. The ultimate key to success of an on-going Messaging administration, transformation and evolution is a combination of complementary methodology and technology which enables an organisation to collect, analyse, rationalise and execute. This incorporates the collection of information that must be based on well-defined technical, organisational and financial rules to ensure that the execution is precise, and importantly a success. **TSB**



**Today, businesses must adopt an approach to email migration that will provide a repeatable formula for success via a single investment rather than viewing the process as a once-off event.**

## How 802.11ac works

802.11ac is essentially an updated version of 802.11n, which introduced technologies that brought massive speed boosts over 802.11b and g. Whereas 802.11n had support for four spatial streams (4x4 MIMO) and a channel width of 40 MHz, 802.11ac can use eight spatial streams and has channels up to 80 MHz wide, which can be combined to make 160 MHz channels. Even if everything else remained the same, this means that 802.11n has 8 x 160 MHz of spectral bandwidth to play with, vs. 4 x 40 MHz – a huge difference that allows 802.11n to squeeze vast amounts of data across the airwaves.

To boost throughput further, 802.11ac introduces 256-QAM modulation (up from 64-QAM in 802.11n), which basically squeezes 256 different signals over the same frequency by shifting/twisting each signal to a slightly different phase. In theory, this quadruples the spectral efficiency of 802.11ac over 802.11n. Spectral efficiency is a measure of how well a given wireless protocol/modulation/multiplexing technique uses the bandwidth available to it. In the 5 GHz band, where channels are fairly wide (20 MHz+), spectral efficiency isn't so important; in the cellular bands, though, channels are often only 5 MHz wide, which makes spectral efficiency very important.  
source: [www.extremetech.com](http://www.extremetech.com)

# Lightning-fast Wi-Fi on the horizon



*Martin Ferreira, executive head of Technology and Operations, Jasco Carrier, South Africa*

**Being a part of a wireless world has made life a lot simpler. Our mobile lifestyle is now supported by a variety of personal connection options and public Wifi solutions making the process of getting online almost effortless.**

**T**hat said, it has, traditionally, been a less than satisfying experience connecting to a WiFi network due to restrictive speeds which confined one to very basic browsing and mail downloads. This is perfect for simple communication purposes but for those looking to access business applications on the cloud, make full use of video conferencing and indulge in media rich content, among others, the situation was less than ideal. There is, however, a light at the end of the tunnel. The imminent roll out of the latest standard and fifth generation in WiFi protocols, the 802.11ac which promises to deliver speeds on wireless LAN sites of up to three times faster than the previous 802.11n standard. This, in theory, will make high-definition video streaming at 500 Mbps possible.

From an almost zero base in South Africa, demand for wireless bandwidth is increasing. More users today use wireless access as their primary source of connectivity, accessing bandwidth hungry services such as iCloud, video conferencing and radio-streaming sites. Coupled to that, with the burgeoning smartphone and tablet market, there are more wireless devices than ever before. Users sometimes have two or three devices, which has created a great demand for new Wi-Fi design considerations.

According to Martin Ferreira, executive head of Technology and Operations at Jasco Carrier, South Africa follows the International Telecommunication Union (ITU) recommendations as outlined by Europe, and the local market can expect the 802.11ac standard to be legal at the same time as when the standard is ratified.

#### **Companies must have a strategy in place to migrate to the new standard**

"The 802.11ac project was approved in September 2008," says Ferreira. "The Draft 2.1 is currently available, and the final third version is expected to go out for ballot shortly. Final ratification of the standard is expected in the latter part of 2013. However, the Wi-Fi Alliance is aiming to have the certification process in place in Q1 of 2013."

However, Ferreira says 802.11ac won't deliver the enhanced speeds and performance if organisations are still using older technologies that are not Gigabit enabled. "Companies must have a strategy in place to migrate to the new standard. The reality is that the standard does offer the benefits of unprecedented speeds, but there are a few considerations that organisations need to address before upgrading to this latest WiFi development."

Ferreira explains that these super-fast speeds may not be experienced by the ordinary end-user in a company. "In order to harness the performance benefits of the 802.11ac standard, end-user equipment, such as PCs and notebooks must be 802.11ac ready."

802.11ac network equipment will have limited backward compatibility and as many end-user devices still operate at the 802.11n standard, lower speeds and performance will be experienced. "Organisations will have to exclude slower modes, such as 802.11b and g, by not allowing these devices on the network. However, operational requirements will have to take precedent in order to implement this strategy. If correctly implemented, 802.11n device should get throughput close to the maximum of the device capability."

#### **What's exciting are the efficiencies and productivity that will reach the end-user**

There are a number of benefits which the 802.11ac environment offers but, notable, it is less prone to interferences from appliances, such as microwave ovens, electric fence energisers and remote control devices to name a few. Better modulation techniques have also been implemented with the 5GHz standard.

When putting your strategy to migrate to 802.11ac in place, Ferreira says that there are a number of steps that need to be taken. "This entails identifying the roadmap by an infrastructure provider, as well as allocating a budget for the switching infrastructure and LAN cables, followed by a phased approach to implement the standard. We will definitely start seeing improved automation in factories, to include real time monitoring. What's exciting are the efficiencies and productivity that will reach the end-user, as well as the enterprise. It paves the way for more intelligent Wi-Fi enabled devices, such as IP-enabled fridges, televisions and other appliances". **TSB**



# SSD vs HDD - do you need one?

**We love our media. So much in fact, we could be called hoarders, finding it almost impossible to delete anything once it is safely tucked away on a drive. You can therefore imagine our chagrin when, somehow, the TB drive fell and all the data was gone.**

**S**till weeping, unashamedly, due to the loss, we decided to investigate the various alternatives which could serve our purposes. The search led us to Zandr  Rudolph, retail manager at Drive Control Corporation.

Solid state drives (SSDs) are starting to gain traction in the market as they are smaller, lighter, faster, more power efficient and, with no moving parts, more robust and reliable than traditional hard drives. "While the capacity of SSDs (64 -512 GB) is significantly lower than that of HDDs and they cost about five times more, SSDs continue to grab more market share in both the 2.5 and 3.5 inch formats. They are finding a very welcome home with niche users," says Rudolph.

It would appear that SSD fans are IT savvy users with specific needs in mind when it comes to their storage needs. "Mostly we see mobile workers, gamers and users of data and/or graphics intensive applications as the main adopters. They understand the technology and realise the benefits. The most notable is that you get all the benefits that come with the non-

volatile NAND flash memory of the SSD. This is the same kind of memory found on mobile and portable devices and on your desktop PC's flash drive."

## More rugged, reliable and stable

What made us sit up and listen was that fact that there are no moving parts. In essence, it allows SSDs to offer instant-load performance which translates to faster boot times, faster application loading times, and better system responsiveness. "SSDs are also more rugged, reliable and stable than traditional magnetic hard drives, shaking up or dropping a mobile device with an SSD may leave you with a broken screen, but your data will be intact. It's what you want when you are on the road, need to present sales information to a client without start-up delays, crunch a huge amount of data or edit video footage in the field or from a remote location."

The read and write speeds of SSDs can vary by capacity, model and brand but users can expect to reach up to 500 megabytes per second write speeds and read speeds of up to 260 MB/s on a 512 GB Serial Advanced Technology Attachment (SATA) 3 model. "A 128 GB SATA 3 SSD may have write speeds of only 175 MB/s. On a SATA 6 512 GB SSD however, you could get read speeds of up to 500 MB/s.

In order to understand how the speeds differ and the performance benefits of SSD over traditional HDD, it is necessary to take a step back and clarify the difference between the two hard drive technologies. A traditional HDD features a platter or disk with a moving arm with magnetic

## You know you need a SSD if you want to:

- **Push the power button on your notebook or PC and have it boot almost immediately**
- **Load applications (or games) almost instantly**
- **Increase your multitasking capabilities**
- **Reduce the weight of your laptop, increase your system's battery life**
- **Fool-proof your data against slips, bumps, falls, and other travel accidents.**



Zandr  Rudolph, Retail Manager  
Drive Control Corporation.

heads. SSD technology has no moving parts and features a far smaller footprint.

The speed of a traditional HDD is measured by the rotations per minute which illustrates the speed at which the drive's disk spins. For example, low-end HDDs read approximately 100 MB/s and write speeds of approximately 40 MB/s. Conversely, a low-end SSD hard drive features read speeds of approximately 200 MB/s and write speeds of approximately 100 MB/s. This is significantly faster than traditional HDD."

### Prepare to pay a premium

Sounds perfect, but, and there is always a but, NAND flash memory is a little hard to come by which puts a premium on getting your hands on an SSD. Production capacity is unlikely to meet demand in the next decade, according to industry sources so while costs are coming down a little, there will be no fast drop. "At present, you can expect to pay about R5 000 for a 512 GB SSD, and about R1 000 for a 500 GB HDD."

Another little spanner in the works hinges on maximum capacity. The SSDs are capped at 512 GB which pales a little when compared to the TBs available on HDDs. "There are some compromises to be made and many are doing so, using the 3.5" SSDs. All SSDs only come in a 2.5" form factor and one would need a 3.5" bracket to install it into a desktop PC for targeted applications and processes. With installation as easy as ghosting the current HDD onto the SSD and dropping it in, it is a no brainer for those that can make productive use of the speed and processing capacity of the SSD."

### SSD dramatically increases the speed of workflow

For the hardcore users out there who demand a fast start-up on their desktop PCs, the 2.5" SSD with a 3.5" bracket is installed and used to boot up the PC. "In this instance the operating system and key applications that demand fast response times loaded on the PC, and the bulk of other data and applications, are stored on an accompanying HDD. The same setup can be used by graphic design professionals, video editors and Computer-Aided Design (CAD) users of data intensive applications with the SSD dramatically increasing the speed of workflow by being able to speed up processing and file transfer."

As an added benefit for the eco-conscious users out there, the fact that there are no moving parts makes the SSD about 20% lighter on power consumption. "This is great as well if you are worried about battery life. It's also quieter – no moving parts means there's no mechanical wear on components, increasing the relative life of the drive."

At the moment the SSD seems, to be more of a 'want' as opposed to a 'need' product. The price tag is a little hefty but for corporates and high-end users with a bit of cash this would seem to be a great solution. As with all things we believe that the price will plummet in future and, in certain cases, SSDs will become the standard as opposed to the exception. **TSB**





# Storage is changing

**TechSmart Business recently travelled to Istanbul, Turkey, to attend Western Digital's (WD) Executive Summit. It was here where the company asserted that the rise of SSD and cloud-based storage solutions does not translate into the writing on the wall for conventional hard drives. Hanleigh Daniels spoke to Richard Rutledge, senior VP and GM of WD's Datacenter Storage business unit.**

**TechSmart Business (TSB):** Does WD view the consumer shift from conventional hard drives to high capacity flash-based storage solutions as a threat to its core business as a hard drive manufacturer?

**Richard Rutledge (RR):** Globally there is an increased demand for bytes. There is a growing demand for magnetic bytes (conventional HDD storage), and there is a growing demand for flash bytes (SSD and flash storage). There is a declining demand for tape bytes (tape-based storage solutions), and a declining demand for optical bytes (CDs, DVDs etc.). Therefore it's possible to have a growing market for both hard drives and flash.

**TSB:** How has the popularity of HD video streaming applications and services impacted upon the sale of large capacity drives to content providers and cloud-based businesses?

**RR:** Set-top boxes is a fantastic business, we actually have a digital video business unit that focuses largely on MPEG-based solutions in broadcasting, set-top boxes and video surveillance, so that's a fantastic business for us. Video is an important component of cloud-based business, and as proof



*Richard Rutledge, Senior VP and GM, WD Datacenter Storage business unit*

of that one simply needs to look at content delivery networks (CDNs). The internet is actually very expensive, and to send a byte of data from Los Angeles to Jo'burg is very costly. They charge you basically for distance, since a network is priced just like an airliner – the longer the distance, the more expensive it is. CDNs are basically mobile caches. In the US, Netflix allows users to stream videos. The popular videos are cached within each city, so that they are close to users within

each city and the least popular videos are maybe held at a central data centre. So from our business point of view, there are lots and lots and lots of copies of a video (stored within central data centres and the CDNs). When you're streaming, most people think that there is no need for a hard drive, and that's not at all true since there are a lot of hard drives within a CDNs and central data centres.

**TSB:** Public cloud-based storage has certainly come to the fore over the last couple of years, with a plethora of products and solutions the likes of iCloud, Google Drive, Skydrive and Dropbox. How has the dynamic growth and need for cloud storage impacted the storage market?

**RR:** Consumers have a lot of storage devices in their homes such as an Xbox or PS3, PCs and tablets, and maybe a set-top box, so they already have their own personal cloud. Just think of the words 'personal cloud' as marketing, since it's just a name to describe all of those devices and the GBs worth of data stored on these.

It's absolutely true that the first experience most people have of network-based storage is a public cloud, because you might have a Gmail account, and because you have a Gmail account, you use Google Drive. We believe that our USB-based storage will transition to Wi-Fi-based storage and the Wi-Fi-based storage collectively will then become a user's own personal cloud.

**TSB:** Given the growth in size of storage media, from what was once gigabytes to now terabytes, does WD foresee some



version of storage technologies, that are typically used at enterprise level such as data deduplication, into the general user space?

**RR:** I'll answer your question this way. Data centres are all the same, they aim to provide more users with more services on a very tight budget. To achieve this, a data centre always adopts innovative solutions such as data deduplication. The primary driving force leading to the adoption of such innovations in the enterprise sector is efficiency. Within the consumer side, users tend to prioritise factors that include more space and faster data transfer speeds above said efficiency, since they want to store more content and not necessarily utilise the storage space they have more efficiently. **TSB**

# Switch to



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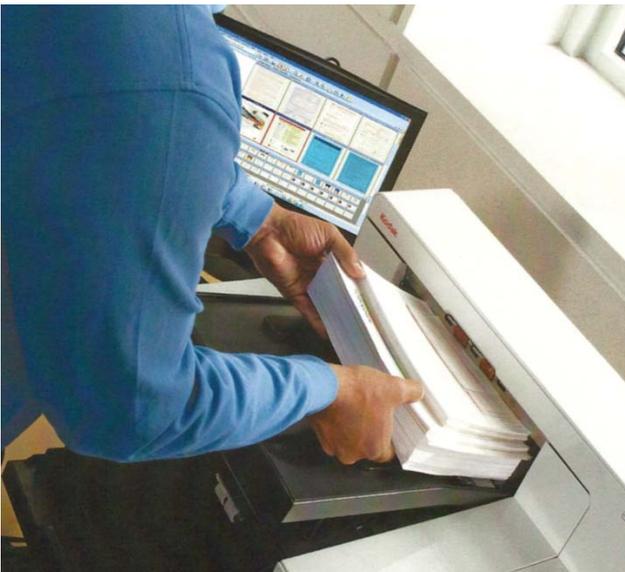
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# Imagecare: Maintaining your image

**Imagecare, one of the larger sales and maintenance companies for document scanning technology in South Africa, had its start some 10 years ago as a pure document scanner maintenance service provider. In that time the company has evolved into a full service entity offering a wide gamut of document imaging solutions to clients across South Africa.**

**M**anaging director Gavin Hughes realised that there was a gap in the market which saw the birth of the company in 2003. "Scanners have become an integral part of the daily functioning of large companies and, as we all know, when mission critical systems fail, business comes to an abrupt halt," says Hughes. "It is here where we come into play by keeping these essential machines running." With the extensive knowledge and experience of the market, Imagecare's sales directors, Mohammed Reza Garda, who handles private sector and Kuben Reddy, who handles public sector, have managed to secure over 2 500 scanners on maintenance throughout South Africa. Their target is to increase this to 5 000 over the next three years.

"Our core business revolves around providing preventative maintenance to clients on a contract basis thereby ensuring



maximum uptime of their assets," Hughes continues. Depending on volumes put through the machines they will service the machine either monthly or quarterly, and, if there is a breakdown, they have 9 offices strategically placed to offer a four, sometimes two hour response time countrywide, to come out and repair the unit. This is a no mess, no fuss solution as all consumables, and call out fees are included which makes annual costing and budgeting a simple process. It is, essentially, like having an insurance policy for your scanner in place.

## **System breakdowns due to a back-end mechanical failure is not an option**

Traditionally, preventative maintenance contracts have been a hard sell in any industry and most people consider them to be a grudge purchase. This, according to Hughes, is not the case when it comes to scanners as owners realise that any breakdown or extended downtime of a machine can have serious repercussions. "In the industries that we serve owners and operators realise that, if the machine is down there are a number of business processes that come to a halt and scanning backlogs start piling up. Our main selling points revolve around making sure that the machine has maximum uptime, operators are not idle and processes are not hampered. Over and above this, there are mission critical systems to be taken into account. Having spent many millions of Rands on putting systems in place, only to have the system breakdown due to a back-end mechanical failure is just not an option. Essentially, the scanner is the input into the multi million rand system."

Most government departments and large corporates will have some form of document management system (DMS) that integrates into the various departments. The scanner is essentially the point of entry for any hard-copy document into the organisation. How that document is processed through a scanner from first point of contact – the quality, accuracy and extraction of information – determines the success of the

entire DMS. This is why preventative maintenance becomes critical to ensure that the machines are operating at optimal efficiency.

### Few companies will finance services

Maintenance aside, Imagecare has evolved into a total document capture solution provider. "Our experience in the industry has allowed us to become more than maintenance providers and we can act in an advisory capacity to our clients and inform them as to the raft of document management systems available and what would suit their needs best. In fact, anything to do with scanning, document capture or document management, we will be able to provide advice and mentor clients how best to implement new solutions and integrate them into their current environment and structure," continues Hughes.

Scanning technology has come a long way in the last 20 years evolving from ponderous, bulky, and complex machines into the sleek, high-speed gear we have today. By upgrading old units, significant increases in efficiency, and productivity can be realised and with a five year life span on the technology there is tangible return on investment. Imagecare has partnered with a company that arranges lease agreements on new technology and, a unique aspect of this arrangement, is that the cost of maintenance is built into the price of the scanner thus ensuring complete piece of mind. There are very few companies that will finance services so it was a no-brainer to partner with them.

### Efficient, fast processes and no human error

Going forward, Hughes believes that there is massive scope for growth in the scanner market. "Looking at the industry, globally, I believe we have a way to go to catch up with the current trends. Automation has been widely adopted across

the world and we need to embrace the concept in South Africa. A simple example is processing an application for a loan. You fill out the form, send it to the institution in question, and it gets



scanned in and someone types out all the information into the required fields. This process can be fully automated with technology available, that will scan the document and pull all the relevant information off and send it to the right department or individual. Basically, processes will be more efficient, faster and human error will be eliminated." Coupled to this, Hughes says he can see scanners becoming commodities within the next five years. Prices will come down, speeds will go up and the differentiating factor will be the software solutions available and the value-add service vendors can provide. Imagecare is putting a lot of energy into this area which will ensure their sustainability and keep them relevant for the foreseeable future. **TSB**

### Contact details:

[www.imagecare.co.za](http://www.imagecare.co.za)

Tel: +27-11-444-4020

## Questions to ask when choosing a scanner

- 1. Volume - How many documents will you be scanning a day?**
- 2. Quality of the paper - What type of documents will you be scanning and what is the quality of the print on the paper?**
- 3. Environment - Is the machine in a factory environment thus requiring it to be robust or in a clean corporate office where it will take less punishment?**
- 4. Software - What embedded software is on board and does it cater to your specific needs?**
- 5. Local support - Are parts and service freely available near you?**





# To app or not to app

With an award winning banking app, FNB has clearly cracked the art of apps, so TechSmart Business got together with Farren Roper, head of FNB Connect ISP and Business Operations, for insight into getting app development right.



**W**ith the burgeoning smartphone and tablet market, applications are everywhere. From the practical to the ridiculous there is something for everyone. Business in particular, has taken to the new technology with great gusto and is offering a raft of value-add apps to make your, and their life easier. That said, it is not a simple process with guaranteed success and there are a number of pitfalls one should avoid.

## Don't built an app simply to be first

Essentially, an app is optimised to work on your mobile device. There are pundits who believe that a website could do just as good a job and is far cheaper. Roper disagrees with this statement and says that the digital era is all about consuming technology in a manner that allows the device in use to perform at its best. "It is with this in mind what we designed an array of bespoke and native banking apps suitable to either smartphones or tablets. FNB Mobile and Connect has been developing apps since 2009; our first App was called the Connect Phone and developed on the Symbian platform. Over the years we've refined and focused on our in-house app development skills. Naturally, banking on mobile was always a priority for FNB with us being the leaders in cellphone banking (USSD), inContact SMS notifications as well as having a .mobi site which is really successful. For us it was really about using our existing skills and capabilities to find a market niche that would not only add value to a client, but also fit into an increasingly digital world, where we predicted the smartphone explosion not only globally but in South Africa. It was important that we create a quality app and not just build an app for the

**When deciding on what to include in your app it is important to get input from those people who will actually be using the thing.**

sake of being first. We therefore took our time and attempted to master the main operating systems, ensuring that we could 'DIY' and that we were not dependent on importing skills."

It is also clear when looking at digital trends such as the number of app downloads, that Apps are a want amongst consumers. In just the Apple and Google stores more than 100 billion Apps have been downloaded with those two operating systems adding at least 4.5 billion additional downloads per month. "Looking at these figures, an app was relevant to our market, our development lifecycles, and our innovations are always informed by client demand."

#### **You cannot suddenly stop, pull out or fall behind**

When first starting the planning process there are a number of considerations that need to be taken in to account. You have to make sure you get the product right as getting it wrong can do more damage than not having one at all.

"A good starting point is always your customer base," says Roper. "Do they have smartphones or tablets? Because of the FNB smart device offer, it is a little bit easier for us as we are actually contributing to the growth of the smartphone and tablet ecosystem in South Africa, so most of the customers who have taken up the smart device offer over 24 months use our app. Another consideration is whether you have the skills to develop an app. Once you become a part of the app market, you cannot suddenly stop, pull out or fall behind. This means you must have the right people that know how to build apps, test for quality, and are flexible and adaptive to consistent changes in the ecosystem where there are constantly new versions of devices and operating systems. If you do not have the capability, get someone who does."

It must also be remembered that your app must be relevant. If app development is something you are doing simply to keep up with a competitor, then it might be done for the wrong reasons.

"This is where you may want to opt for the mobi site instead. Skills are readily available, maintenance is arguably easier, costs are contained and it will appeal to a broader audience. In our instance, we have the ability to do all the various forms

### **Eight tips to build your app**

1. Start small
2. Keep it simple
3. Do not include unnecessary features
4. Include features that are relevant to your industry
5. Sort out bugs immediately
6. Cater to all mobile platforms
7. Find out what your customers actually want
8. Hire a professional

of mobile banking (cellphone banking, mobi and app) so we see the app as another addition to the mobi family and part of the holistic mobile offering. The app just happens to be the fastest growing mobile platform and if you told me two years ago we would have 500 000 active customers I might not have believed you."

#### **Apps vs mobi skins**

Now that you have decided that the app route is for you, there are a few basic tenets that need to be addressed. Planning ahead, and having a clear goal in mind will save a lot of trial and error in the long run.

"The primary concern when building your app should be simplicity. You need to simplify processes and enhance the customer experience of a brand and its products and services. Keeping it simple can sometimes be quite a challenge. Always think about how you can make the experience simpler and faster for the client. One click vs. two, rich media vs. heavy text and so forth. Next, make sure that the app is immersive. With mobile devices today you have the capability to give a customer an immersive experience, so why not? Most devices are touchscreen so let those who engage with your app use their hands. All this is pointless if you neglect the quality of your app. At FNB we build native apps. You would be surprised at the number of apps that are nothing more than a mobi skin – you will get caught out eventually."

When deciding on what to include in your app it is important to get input from those people who will actually be using the thing. "Listen to your clients. Some of our best ideas are gathered from social media and our clients determine our development roadmap. This is a double edged sword as bad news spreads faster than good, so if your clients don't like something or if something is broken and not functioning properly, fix it as soon as possible. Lastly, make sure that you provide an ever increasing amount of value as clients come to expect it. There is no point in having an app just for the sake of having it. On our app, for instance we have GeoPay as well as free calls - our clients love this. If someone uses your app once and has a bad experience they will never, never come back. Tech journo Hilton Tarrant coined a great phrase 'app-athy' – this is a feeling that you don't want your client base to develop. You want your app front of screen and top of mind." **TSB**



# Choosing the right platform for your mobile application

By Aavishkar Jugwanth, Mobile IOS Developer, BBD

**The proliferation of mobile devices, specifically smartphones and the increased number of tasks users are relegating to their mobile device is a matter of fact.**

**F**rom booking tickets to banking and chatting to social media, the smartphone does it all and is even being used as an electronic wallet in many countries. As more devices equipped with NFC (near-field communications) appear, your mobile could even open doors and raise the boom at a parking garage in the near future.

Companies wishing to remain top of mind among customers and give them the opportunity to transact and interact with the minimum of inconvenience must take cognisance of the growth of mobile and make themselves easily accessible on these platforms. Unfortunately, when considering the degree of diversity between the different platforms, the user requirements, the budgeting concerns and the numerous architectural paths available in mobile application development, many businesses are confused as to where they should start when it comes to going mobile.

## The big three options

When considering mobile application development, there are three options to explore: native, web-based and hybrid applications.

### Native

Native applications are, as the name suggests, specific to a given platform. When creating native apps, the developer uses standardised SDKs (software development kits) created by the manufacturer to ensure the standards on that platform are kept up to the level the manufacturer intended.

These applications offer the best performance and user experience. Native applications offer a faster experience, fluid animations, full access to the built-in components and ease of use for the user. Also, there is generally much more documentation to assist in creating your application.

These applications can only run on the device they are designed for, so if you want to have an app for multiple platforms, you need multiple applications and specialised developers for each. The development cycle is longer, costs are higher due to specialised resource requirements and you have multiple code streams which will become increasingly difficult to maintain over time.

## Web-based

Web-based: Using standard web technology such as HTML 5, CSS, and JavaScript, developers can produce write-once, run-anywhere applications that run in the browsers of almost any mobile device. This is convenient, but comes at the cost of some limitations.

With advances in CSS and with HTML 5, there could be hope for web-based mobile applications, but at the moment these applications are greatly overwhelmed by the performance, requirements and functionality of other approaches. These applications do not allow for offline storage and security, and users will not be able to use the compound touch gestures they are used to.

## Hybrid

Hybrid: Combining native and HTML, hybrid applications allow you to take some of the best (and worst) allowances of the other two approaches. Hybrid application development has made great strides, with the APIs (application programming interfaces) and libraries exposing more of the underlying device. Developers now have access to almost all of the device's built-in components. You still use CSS and HTML 4/HTML 5 and JavaScript, but developers can optimise

JavaScript and create awesome CSS layouts presented by compliant HTML, capable of working on any platform. There may be special scenarios, however, where native developers need to write plug-ins to complex tasks.

The world of mobile is constantly changing, with new devices, new features and new platforms constantly being introduced. The manufacturer API is the first to expose the new features and the hybrid APIs are always soon to follow. The comparison chart below may help you decide your way forward.

## To the point

Mobile is a growing industry and nobody really knows to what extent mobiles will still influence and impact our lives. What we do know is that it will have a significant impact and become an even more integral part of our lives in the foreseeable future. Companies need to come to terms with mobile platforms and ensure they are able to provide their customers with easy access by developing applications that draw them in and

allow them to conduct business with the swipe of a finger. If you don't, your competitors certainly will. **TSB**



**Businesses are confused as to where they should start when it comes to going mobile.**

## Application development platform guide

	Native	HTML5	Hybrid
App Features			
Graphics	Native APIs	HTML, Canvas, SVG	HTML, Canvas, SVG
Performance	Fast	Slow	Slow
Native look and feel	Native	Emulated	Emulated
Distribution	Appstore	Web	Appstore
Camera	Yes	No	Yes
Notifications	Yes	No	Yes
Contacts, calendar	Yes	No	Yes
Offline storage	Secure file storage	Shared SQL	Secure file system, shared SQL
Geolocation	Yes	Yes	Yes
Swipe	Yes	Yes	Yes
Pinch, spread	Yes	No	Yes
Connectivity	Online and offline	Mostly online	Online and offline
Development skills	ObjectiveC, Java	HTML5, CSS, JavaScript	HTML5, CSS, JavaScript



# VoIP and teleconferencing for everyone

**T**echSmart Business recently 'sat' with Rob Lith, director at Connection Telecom to chat about the current status of VoIP and video conferencing. Why we use quotation marks is the fact that he was in Cape Town and we were in Johannesburg, and the interview had a personal touch despite the distance. With the price of data and connection speeds increasing, this technology is no longer exclusive to corporate companies with big budgets.

Previously, video conferencing never really gained much traction as an everyday application but it is fast becoming a cost-effective alternative to cross country travelling. "The ability to join in the meetings via your smartphone or tablet has also made things a lot more accessible with people able to attend online meetings wherever they are. The last year or so has seen us really expand our footprint and the driver behind this is that more and more companies have fibre running directly to their buildings. This has been a long time coming, but it is a massive enabler in our industry."

## Price pressure steadily reduced prices

According to Lith, having fibre-ready offices makes a company's transition to VoIP infinitely easier, as the speed and other performance improvements remove much of the hassle factor of engineering VoIP over other access technologies. "The price pressure on connectivity and bandwidth cost has steadily reduced prices and there will be further reductions going forward. This has been a great platform for us to deliver our voice services, and we are now on the precipice of being able to layer video on top of that. Traditionally, video services were prohibitively expensive and the hardware needed was extreme. Coupled to that, the coding used was not perfectly suited to the task. The solution to this is scalable video coding



*Rob Lith, Director, Connection Telecom*

(SVC) which allows for the best connectivity stream available to be established. This means that boardroom to boardroom may have a fantastic connection but it will still allow a third party to join via smartphone with a 3G connection and the connection will scale to accommodate said phone. This will not impact on incoming quality from any other sources. What used to happen would be that the entire system would default to the speed of the lowest connection."

Now that metro fibre rings are commonplace in the major urban centres, a new kind of niche network provider has

arisen that specialises solely in pulling fibre from the kerb into business premises.

### Capacity and speed makes segmenting voice and data channels simple

In this scenario Lith says that VoIP becomes an absolute no-brainer. "The sheer capacity and speed of it makes segmenting voice and data channels a much simpler process, devoid of much, though not all, of the optimisation work that goes with other access technologies. For R2 500, Neotel offers a 100 Mbps fibre port called the NeoOne and for R1 000 extra, customers can procure a 1 Gb fibre port. Using classic MPLS-based class-of-service segmentation, the line can simply be apportioned to accommodate different services, such as best-effort broadband, real-time, highest-priority voice traffic, business traffic, general email traffic, and everything else. Each individual service has a cost, for example NeoBroadband Internet service 2 Mbps is R3 050 per month or 5 Mbps for R5 100.

Narrow band Diginet is trickier to manage the contention of voice and data. A 512 Kbps circuit, for instance could be set-up to offer 128 Kbps for 8-voice channels and the balance for data, but with such a narrow 'pipe' it becomes exceedingly difficult to manage the contention between voice and data. In addition to this, Diginet has a six-week waiting period, which does not have to be factored into the equation with fibre where a building is connected."

Fibre's superior response times are also making VoIP a far more attractive bet. "Analogue access lines have an inherent delay in the modulation-demodulation process. Digital circuits in turn have latency delays in the low hundreds of milliseconds, while fibre is orders of magnitude faster, with latency as low as 2 milliseconds."

With fibre now freely available VoIP seems to be a viable alternative to fixed landline and mobile voice services which are becoming a hindrance and costly endeavour. "Your next move is as simple as buying a fibre port and plugging it through to your office, setting MPLS-based classes of service for different kinds of traffic, and buying what fibre-based services you require," concludes Lith. **TSB**



## Five reasons to look at VoIP

### 1. Cost-effective

Hosted VoIP services save capital expense by only requiring purchase / rental of VoIP telephones and not the central equipment cutting costs by thousands. Many VoIP plans include unlimited local calling and very competitive international calling rates. VoIP uses less physical hardware than traditional analogue systems and require less replacement and repair.

### 2. Simple scalability

By renting handsets you can increase and decrease the amount of extra extensions needed month by month.

### 3. Communicate internally between multiple offices

VoIP telephone systems provide the ability for phones spread out among a diverse geography to seamlessly communicate using data networks as if they were all in one building including dialling extensions and transferring calls.

### 4. Ease of installation and maintenance

Unlike legacy phone systems, VoIP does not require the installation and ongoing maintenance of expensive equipment. VoIP systems can utilise the network infrastructure already in place in an office setting.

### 5. Feature rich

VoIP based phone systems offer businesses features traditionally available only to larger companies

- Customisable call routing
- Customisable hold music and commercial announcements
- Voicemail to email/text message alerts
- Web-based control panel to make phone system changes
- Find Me call routing – inbound calls can be configured to try multiple locations and devices to locate a specific end-user
- Conference bridges – multiple on-site and outside callers can concurrently take part in password protected conference calls

# A game-changing year for video conferencing

## Factors align to take video into the mainstream



*Nidal Abou Ltaif, Vice President, Middle East, Africa and Turkey, Avaya*

**W**e have always been fans of video conferencing. The ability to have face to face meetings across the country, or the world for that matter just appeals to the geek in us.

That said the truly great products which allow for seamless voice and video have always been reserved for corporate companies with deep pockets and massive bandwidth. The landscape is however changing, and thanks to cheaper connection prices, and readily available software, video conferencing is becoming a viable option for everyone.

TechSmart Business was recently lucky enough to attend a round table discussion with Nidal Abou Ltaif, Avaya vice president for Middle East, Africa and Turkey and Selvin Kristnen, MD of Avaya South Africa to discuss the current status and future of video conferencing.

A recent Canalis UC Market report for EMEA forecasts that between 2012 to 2014, video shipments will spike. It seems businesses large and small are coming round to the idea of using video conferencing as an effective and efficient business communications tool. "This shift has partly been

driven by the popularity of consumer video technologies like Skype, which are allowing people to communicate face-to-face across different geographies and time zones, in a cost-effective, efficient and social manner," says Kristnen. "There has therefore never been a better time to look at video collaboration technologies, and we anticipate an exciting 6-12 months ahead. This will be a time when we start to see the 'democratisation of video' brought into every business by employees anxious to collaborate fully and freely, on any device. But why now? What is causing industry experts to predict the spike in uptake in 2013?"

### The answer might be...

Businesses have perhaps previously been slower on the uptake because of the need for failsafe solutions that provide the quality and resilience that professional communications require. "Up until now, video conferencing technology has been expensive, problematic to implement and difficult to use. Now, desktop solutions are open and interoperable, affordable, and easy-to-use, and suitable for businesses of any size, including vibrant small and mid-market companies. But there's also another argument to consider, since over the past few years, critical factors have been gradually aligning to ensure video can finally, and successfully, move into the mainstream," according to Kristnen.



*Selvin Kristnen, MD, Avaya South Africa*



### The hardware is at our fingertips

For many, personal devices are better than those provided by the company IT department in terms of functionality. People have become accustomed to using sophisticated devices and applications at home and, as a result, there has been a massive growth of the bring your own device (BYOD) trend, where employees bring their personal mobile handsets, many of which are video-enabled, into the enterprise. (See p26 for more on the BYOD trend.) “Many IT departments are responding positively and new features such as front-facing cameras are making video conferencing an attractive and realistic prospect for enhancing mobile productivity,” says Kristnen.

### Collaboration is no longer just a buzzword

With new, holistic video and unified communications solutions, people are constantly sharing as well as communicating. Whereas people would have previously spoken on the phone, and followed up with information in an email, they are now doing everything, all at the same time – communicating and sharing content all in one seamless collaborative session. According to Kristnen, this behavioural shift is partly down to the fact that people are naturally collaborating a lot more in their private lives, using desktop and mobile video conferencing to chat, share internet links and photos etc, and even pull in other friends or family members as they see them come online. “Video creates an ideal platform for these collaborative sessions to take place, and businesses are recognising they are an effective, efficient, productive and convenient way of getting things done.”

### Advanced networks allow video ambitions to flourish

A combination of factors are forcing IT departments to consider their network infrastructure – BYOD, bring your own application (BYOA), the proliferation of multi-media content, and the widespread use of mobile devices. “As a result, many businesses are assessing their networks to ensure they have the network capacity to operate in this new environment. As they look to boost their network capacity, many are also attracted by the promise of high-quality video conferencing,” Kristnen continued.

### Interoperability is top of the agenda

Finally, interoperability is the glue that holds the promise of video together. The video conferencing industry has always been particularly ‘closed,’ with businesses forced to commit to one vendor’s products over the long term. Yet in 2012, interoperability came forward as a key business driver. “This was reflected in the membership of the Open Visual Communications Consortium (OVCC), an organisation that provides an industry framework of interconnected service providers and technology suppliers for a simpler and better user experience. With the aim of breaking down barriers between video conferencing and telecom providers, its membership continues to expand as technology companies recognise the importance of interoperability, and businesses seek non-proprietary, truly open solutions to make the most of the systems they already have. Essentially, ‘rip and replace’ is becoming ‘enable and enhance’,” Kristnen concluded.

### To the point

These factors combined mean there has never been a better time to look at video conferencing. Video is no longer a place to which you go, involving a high-end set up and a guy from IT on stand-by in case things go wrong. Rather, video today is a thing that you do. And this is where video really moves into the mainstream and we start to see the true democratisation of the technology. **TSB**



## Kymera Magic Wand remote control

**D**on't deny it, you have always wanted to be a wizard. Well, here is your chance – almost. With just a wave of your wand you can make Noleen disappear and instantly watch the Bulls score. This brilliant little gadget looks like the kind of thing you might find in Hogwarts. The difference is you use it to control your telly, DSTv, DVD player, stereo or any other infra-red device via various abracadabra-ish gestures. Simply swish, whirl and flick to change channels, adjust volume and much more.

Totally button-free, the wand can 'learn' up to 13 infrared codes from your existing remote(s) and fling them into the ether when you perform one of 13 predefined gestures. You can assign various functions to various moves: flicks to turn on and off; spins to control volume; big swishes to mute and so on.



To add to its supernatural nature, the wand also features a 'heartbeat' in the form of various pulses that confirm gesture recognition and tell you when the batteries are low. It even goes into sleep mode after 60 seconds of inactivity and 'wakes' when you pick it up. It's just like having a real magic wand, only you won't have to wear a stupid cloak. R1 025.



## Peaklife motorcycle GPS navigator

**T**he 3.5" motorcycle GPS navigator provides high-speed and high-accuracy, 42 channel GPS navigation, 400 MHz processor and a Windows operating system will handle whatever you throw it.

This strong, durable portable GPS navigation for motorcycles can be taken anywhere and handle anything. Designed by bikers for bikers, the all-terrain and all-weather Peaklife GPS navigation system has a sturdy Samsung S3C2416 computer processing unit, an FM Transmitter that can get frequencies between 87.5 and 101.1 MHz, and comes with tools to fit safely and securely on your motorcycle. This GPS navigator is shock- and even weatherproof, meaning it can handle rain, winds, sleet, and anything else Mother Nature can conjure up.

The GPS has Bluetooth and can run several media formats like AVI and ASF video files or WMA and WAV files. You can also view pictures and read ebooks, with 2 GB memory that can be boosted by a microSD card up to 8 GB. This GPS navigation system for your motorcycle has more than enough memory needed to provide you leisure and direction.

R 2 299.



## Video glasses 72 inch wide screen display



you wherever and whenever you go. Whether you are on the beach, in a park, or in a long haul flight, just grab your glasses and start playing your favourite songs, TV shows and movies.

This multifunction device supports AV in connection, so you simply connect the glasses with game consoles, smart phones, DVD, TV and PC. Built-in 4 GB memory storage space allows you to store all your favourite media files. R2 899.

**W**ho has ever thought it would be possible to carry around a gadget that could give you a cinematic experience with a surround sound system? This is unique device simulates a 72", built-in, crystal clear virtual cinema screen that makes you feel as if you are in the theatre. This product is not just a gadget, it's your personal entertainment zone where movies, TV shows and games come to life. Weighing in at only 80 grams you can take them with



## Remote wireless DVR monitor



**Y**ou can't have eyes everywhere – and this is where this wireless monitor comes in handy. Providing high quality H.264 compressed video and night vision, this wireless monitor provides additional eyes when you need them most.

The colour 2.3" LCD screen will show you a real-time video transmission and also allows you to pan, tilt and zoom. Even better, the camera's microphone will clearly pick up any noise nearby and automatically transmit it to the monitor, even when the screen is off.

This wireless monitor is also great at night as the 10 IR lights will automatically go to work and provide a bright night view of your subject to make sure you can still keep an eye on things. With zoom mode, you can enlarge the subject. An AV output is also available for connection to your television. R2 299.

## Celluon Epic mobile projection keyboard

**C**elluon has an answer to the demands of today's highly mobile society in its truly portable form – the Epic mobile projection keyboard. This projection keyboard and multi-touch mouse device enables true data input with great precision and quality.

Epic is a successor to the Magic cube. Smaller form factor and improved optics contributes to superior usability and accuracy. So much innovation and productivity is packed into this portable device in a size of a matchbox. R1 730.





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## Trekstor i.Gear Lumio projector for iPhone 4/4S



The i.Gear Lumio projector for iPhone is an ingenious little piece of hardware that allows you to project data (videos, pictures, slideshows, etc.) from your iPhone 4/4S onto a wall or projector screen (diagonal from approximately 30–130 cm). With its built-in battery, the mini-projector can also be used as a power charger for your iPhone, but when used as a projector this will mean that the precious battery life of your iPhone won't be depleted.

The i.Gear Lumio projector is not only handy but powerful too. It is powered by 3 LEDs which has a lifespan of up to 20 000 hours, and will project data and video onto just about any surface. Your presentations are now truly mobile. The projector displays pictures with a maximum diagonal of 130 centimetres at a resolution of 640 x 360 pixels. The three LEDs provide a brightness of up to 15 ANSI lumens and has a speaker for videos. R2 999. **TSB**



All gadgets are available from [www.mantality.co.za](http://www.mantality.co.za).

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