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Serious about performance, passionate about value

Business
Showcase 2016

Special issue

infocentrix

**Business Showcase 2016
Special issue**

Infocentrix is an official newsletter for the Datacentrix Group, its partners and customers.

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Welcome to the Datacentrix
Business Showcase

I would like to extend a warm welcome to each person that has taken the time to attend our Business Showcase – our valued customers, representatives from our participating technology partners, members of the media, the investment community and staff, and distinguished guests.

A partner-driven event
This collaborative event has been made possible by the participation and dedication of our top international and local technology partners. We appreciate the years of involvement and the relationships that we have forged over this time. Thank you for supporting us in showcasing the leading technology developments and our joint response to the changing technology and business landscape.

A changing landscape
The evolution of the business domain will continue at a rapid pace, bringing with it new technologies, new competitors and new challenges.

Traditional business strategies will be tested as the new fully connected, digital environment will demand agility, mobility, intelligent thinking and data-driven organisations.

Our objective for this Showcase is to help safeguard our customers' businesses along their journey into the digital age, keeping them relevant and competitive in the face of continuous change.

Key themes
I invite you to optimise the value of your attendance today by participating in the breakaway sessions that are pertinent to your business. Key themes across these sessions are:
- The economic challenges that we are faced with in South Africa and what we can expect in the years to come;
- Business solutions that will help organisations harness the benefits of this always, one-connected world;
- What the journey into this digital age looks like; and
- Understanding the impact that the digital age will have on your business in the next five years.

Pertinent topics, trends, technologies and strategies
Our keynotes and guest speakers will be tackling some of the global technology trends and business strategies. Don't miss some of the key topics, including:
- The Datacentrix leadership team: A panel discussion
- The modern data centre and how it accelerates business
- Software defined, not if, but when
- Be and remain competitive in a digital world, our new reality
- Intelligent thinking to improve your bottom line
- Empowering the data-driven organisation
- Dark data. What is it and should I care?

Partner conversation booths
You are welcome to enjoy a more personal experience of the respective technology solutions by visiting the vendor conversation booths in the Showcase hall.

Our objective for this Showcase is to help safeguard our customers' businesses along their journey into the digital age, keeping them relevant and competitive in the face of continuous change.

More information
Additional information is available directly from our partner representatives or logon to our Business Showcase portal to request more content.

Flexible format
We'll be following a flexible format throughout the day, allowing you to participate in the 25-minute, breakaway sessions.

Your technology partner along the journey to 2020 and beyond
Datacentrix, with our quality execution, specialised skills, internal and partner collaboration and deep technology expertise, offers our customers a more holistic value proposition by delivering complex integrations between technologies that keep our customers ahead of the change.

Thank you for your attendance. I invite you to enjoy this opportunity to network, learn and share.

Ahmed Mahomed
Datacentrix
CEO

Guest speakers

Cees Bruggemans, Consulting Economist

Cees Bruggemans is Chairman of Bruggemans and Associates Consulting Economists and former chief economist at FNB (1985-2012).

Cees will be presenting the 2016-2017 prospects for the South African market, considering the state of the global economy and the complexities of the environmental forces that are shaping the business landscape today.

Lorenzo Gonzales, HP EMEA Strategist and Chief Technologist

Lorenzo is a strategist within HP's EMEA Enterprise Group, taking the leadership in strategic initiatives of digital transformation and innovation. Lorenzo works with customers and partners across EMEA as a leader in all aspects of new and emerging technologies to meet client objectives.

Lorenzo's broad experience in large international projects and initiatives is a key value in digital transformation initiatives triggered by the big emerging trends in the IT industry. He regulary leads multi-disciplinary teams with senior professionals to define strategic solutions to complex business, technical and organisational challenges. After joining HP in 1996 as project manager, Lorenzo assumed practice management roles in innovation and growth areas, as e-solutions, SOA, application modernisation. Since 2009 he assumed the leadership for innovation and growth initiatives at country level, with regular engagements with CxOs, analysts, press and industrial organisations.

Lorenzo has consolidated experience in planning and delivering multi-disciplinary workshops across the world for large, strategic transformation initiatives, based on the methodologies he co-developed at world-wide level.

Lorenzo started his professional career in 1987. In 1992 he joined GEIS (General Electric Information Services) as Analyst Programmer, and assumed increasing responsibility up to manager of strategic projects. He has 20+ years of experience in the IT industry. Born in Milan in 1965, Lorenzo has a degree in Physics (Elementary Particles, Theoretical) from Università di Roma La Sapienza (1989). In 1985 he was certified as Visitor for Information Technology at Université d'Etudes de Paris Sud (Orsay).

Being relevant and competitive in the digital age

Event agenda

07:00
Registration and Showcase opening
Visit the technology booths

09:30-11:00
Plenary and keynotes by guest speakers

11:00-16:00
More than 25 breakaway sessions to choose from (5 sessions will be hosted per 25 minute slot, with rotation, by our Platinum, Gold and Silver sponsors)

16:00-16:30
Event closing and prizes

16:30-19:00
Cocktails, entertainment and networking

20:00
After party at Joe Parkers Comedy Club

Scan for agenda and breakaway sessions

www.dcxshowcase.co.za

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• How to create new opportunity without creating new IT headaches

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*Based on internal testing January 2015 of an HPE ConvergedSystem 200-HC StoreVirtual with HPE OneView for vCenter version 7.4.0, HPE OneView Instant-On version 1.00, and VMware vCenter Server version 5.5. © Copyright 2015 Hewlett Packard Enterprise Development LP. Intel and the Intel logo are trademarks of Intel Corporation in the U.S. and/or other countries.

(intel)

**Hewlett Packard
Enterprise**

The Idea
Economy:
Is your industry
ripe for disruption?

A great idea alone is no longer enough – business success today is defined by the ability to turn ideas into value faster than your competition.

We now live in an Idea Economy. Never before have the tools required to turn an idea into a new product, business – or even a new industry – been more accessible or easy to deploy. In the Idea Economy, no industry is immune to disruption. Companies, whether start-ups or large enterprises, must combine their vision with technological agility to quickly turn ideas into reality or risk falling behind.

This presents an opportunity and a challenge for most enterprises. On the one hand, cloud, mobile, big data and analytics give organisations the tools to accelerate the process and the time it takes to see a business return. Combining applications and data can create dramatically new experiences, even new markets.

On the other hand, most organisations have been built with rigid, inflexible legacy IT infrastructures that are costly to maintain and that make it difficult, if not impossible, to implement new ideas quickly.

The ultimate winners are those companies – be they startups or huge established businesses – that understand how to use the power of IT to unlock the full potential of their ideas.

Thriving in the Idea Economy requires a New Style of Business. This New Style of Business demands a New Style of IT. Hewlett Packard Enterprise can take IT environments and make them more efficient, more productive and more secure as we bridge the traditional to the new.

We will be doubling our efforts regarding infrastructure innovation at a time when other companies are cutting back. Why? The rise and prevalence of applications and data are creating new demands on IT.

As a result, infrastructure isn't one size fits all anymore. A hybrid infrastructure – one that combines public cloud, private cloud and traditional IT – can maximise performance, allowing for continuous delivery, improved efficiency and optimised costs.

Four transformation areas that are most important to business success
Earlier in 2015, Hewlett Packard Enterprise revealed four transformation areas that represent our view of where the market is heading and what all organisations will need to succeed. They're at the heart of what Hewlett Packard Enterprise will deliver. They are:

1. Transforming to a hybrid infrastructure. This is essential to create and deliver new value instantly and continuously. Most companies are under pressure to quickly evolve to the cloud. We help organisations to build a cloud that scales and works with their infrastructure.

2. Protecting your digital enterprise. Security is top of mind for everyone now. IT is core to operations, and disruptions caused by inadequate security have the potential to cost millions of dollars. We provide the tools organisations need to detect, protect and react to cyber and other risks – whether it's a natural disaster, terrorism or any other threat.

3. Empowering a data-driven organisation. HP has bet on open-source, lower cost solutions – including

hardware, software and solutions – that allow organisations to use 100 percent of their data to generate real-time, actionable insights. The result is better and faster decision making.

4. Enabling workplace productivity. We will help organisations to create a productive workplace that enables quick conversion of legacy processes and tools to mobile, has the flexibility to adapt to changes as the business is scaling up or down, and supports rich communication between all parties – customers, employees and partners.

The good news is that the same technologies that make it easy for new companies to get started are also available to established enterprises, but they need a partner to get them there.

Hewlett Packard Enterprise can enable organisations to act rapidly on ideas by creating, consuming and re-configuring new solutions, experiences and business models.

And we will deliver infrastructure that is built from components that can be composed and re-composed easily and quickly.

So ask yourself, how quickly can I capitalise on a new idea, seize a new business opportunity or respond to a competitor that threatens my business?

Be a winner in the Idea Economy!

**Talk to the team at
Hewlett Packard Enterprise.
www.hpe.com**

The next generation of HP inkjet printers can
improve business productivity and reduce costs

HP South Africa announced the availability of the HP Officejet Pro X Series.

Businesses can save time and money with the next generation of inkjet printing. HP Officejet Pro X printers produce professional-quality colour documents at up to twice the speed[1] and half the cost[2] per page of laser printers. The Officejet Pro X is the world's fastest desktop printer as recognised by Guinness World Records.[3]

Powered by HP PageWide Technology, the company's next-generation inkjet platform, the HP Officejet Pro X Series can deliver high-quality documents at up to 70 pages per minute.[4]

The printer series, consisting of HP Officejet Pro X476/X576 MFPs and HP Officejet Pro X451/X551 dw, uses up to 50 percent less energy.[5] Its HP 970 and 971 ink cartridges create up to 50 percent less supplies waste than laser, without compromising quality.[6,7] HP's Officejet Pro X is the first range of printers ever to be awarded the Blue Angel eco-label certificate, recognised throughout Europe as proof of a product's environmental credentials.[8,9]

"This new generation of inkjet printers designed specifically for businesses enables time-pressured people to succeed in a competitive economic environment," said Merce Barcons, Vice President Inkjet Hardware Category, EMEA Printing Systems, HP. "The Officejet Pro X series produces high-quality documents at the fastest ever speed and with lower costs. With less energy use, these printers can also help business owners reduce overheads and cut waste."

Pricing and availability
The HP Officejet Pro X Series is currently available to purchase with single-function models starting at R6 000, and MFPs starting at R9 000.[10]

The Officejet Pro X series produces high-quality documents at the fastest ever speed and with lower cost. With less energy use, these printers can also help business owners reduce overheads and cut waste.

(1) Comparison based on manufacturers' published specifications of fastest available colour mode (as of March 2012) and includes colour laser MFPs <R15 000 and colour laser printers <R 12 000 available March 2012 based on market share as reported by IDC as of Q1 2012 and HP internal testing of printer in fastest available colour mode (sample four-page category documents tested from ISO 24734). Additional information is available at www.hp.com/go/printerclaims.

(2) Cost per page (CPP) claim is based on the majority of colour laser MFPs <R15 000 and colour laser printers < R12 000 as of March 2012. ISO yield based on continuous printing in default mode based on market share as reported by IDC as of Q1 2012. CPP comparisons for laser supplies are based on published specifications of the manufacturers' highest-capacity cartridges. CPP based on HP 970XL/971XL ink cartridges estimated street price. Additional information is available at www.hp.com/go/learnaboutsupplies.

(3) Guinness World Records title certified for fastest time to print 500 sheets by an office colour desktop printer, April 2012. Record set on HP X551dw and X576dw models. Details at guinnessworldrecords.com. Record attempt supervised and verified by wirthconsulting.org. Test documents ISO 24734 from sample four-page category test file printed in fastest available colour mode for all products. Competitive set includes laser and inkjet colour desktop MFPs <R15 000 and printers <R12 000 as of March 2012.

(4) After first set of ISO test pages. Additional information is available at www.hp.com/go/printerclaims.

(5) Energy use based on HP testing. Actual cost and energy usage may vary. For details, see www.hp.com/go/officejet.

(6) Energy use based on HP testing. Actual cost and energy usage may vary. For details, see www.hp.com/go/officejet.

(7) Compares weight of empty cartridge and packaging materials needed for 15,000 pages using highest-capacity cartridges of major in-class competitors' colour laser MFPs <R15 000 and colour laser printers <R12 000 as of October 2012. Tested by Buyers Lab Inc. Additional information is available at www.hp.com/go/officejet.

(8) Certificate according to RAL-UZ 171 criteria from the German Federal Environmental Agency (UBA).

(9) Austria, France, Germany, Ireland, Italy, Netherlands, Portugal, Spain, Switzerland, U.K

(10) Estimated EMEA street prices. Actual prices may vary.

Next generation Arista EOS for
cloud scale networking

Our customers and their IT teams are under pressure to respond to new cloud-based applications more quickly than ever. The daily drumbeat for new technology adoption is in conflict with the on-going goals of accountability for risk and operational cost reduction.

A balanced and thoughtful architecture is essential. This is a top priority, particularly at the CIO and board level, as IT is no longer viewed as a cost centre, but as a productivity centre.

Arista is at the centre of this new cloud disruption, unshackling our customers from the defensive and expensive silos of legacy enterprise networking.

The disparity between legacy technology and modern technology is clear, and the gap is widening. Arista is unique in its role as a pioneer in cloud networking.

Arista EOS: The best fit for cloud design
It is clear that cloud data centres typically scale their full mesh topology of leaf-spine switches with n-way uniformity to set up the network in a regular symmetric manner. At least four factors are driving the rise of these cloud topologies: economics, dense workload mobility, converged infrastructures (storage especially) and new cloud applications like big data analytics. By decoupling physical compute or storage from cloud applications, one can automate and provision the entire network to handle any workload, workflow or workstream, with real time agility.

Meanwhile, legacy vendors have not changed enterprise network operating systems for two to three decades. No wonder they don't meet today's cloud networking needs. Legacy technology is old, decrepit and monolithic. To make matters worse, the demand for new cloud features, when placed on top of ancient foundations, increasingly compromises software quality.

The Arista Way is fundamentally different. We designed Arista EOS from the ground up to uniquely support quality, extensibility, fault-isolation and high availability with a

single binary image and one OS-build across all platforms. All EOS functions run their own restartable protected process using a publish-subscribe-notify state-based "SysDB" to overcome the fragility of legacy inter-process communication (IPC) between network operating system agents.

Arista EOS has been embraced by 80 percent of the major cloud providers for purpose-built cloud migration for storage, compute and big data archives. These demanding workloads are changing the way networks are reconstructed for cloud networking.
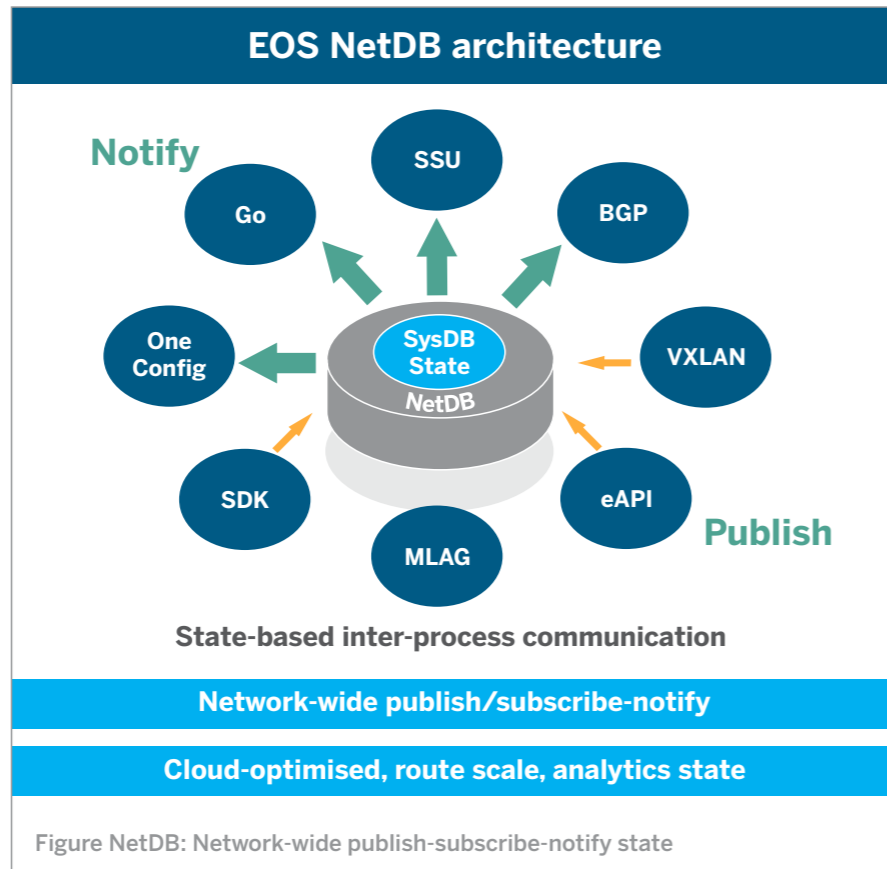
Introducing Arista EOS-NetDB™
Arista is not sitting on its laurels. We are proud of our heritage, but continue to innovate and we are outpacing the industry with revolutionary enhancements to Arista EOS. We are proud to reveal Arista NetDB, the network-wide, state-oriented database
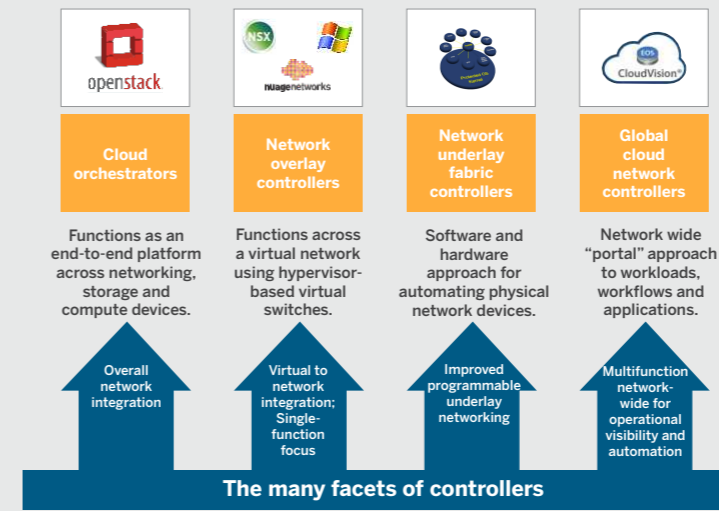
that enhances the core system database (SysDB), as shown in the figure below.

NetDB builds upon the SysDB architecture – sharing state over the network by adding network-wide actions, including state-sharing mechanisms for control, replication and network analytics and a central store for network state. This extends the benefits of the state-based system across the entire network.

The state sharing mechanism in NetDB has also been optimised to support large tables of millions of routes or tunnels to support spine-routing platforms. We will continue to challenge and improve our infrastructure offerings with EOS NetDB innovations. NetDB use case examples include coalescing mechanisms to manage overloads, state filtering for selective updates, export and streaming options for big data analytics and query capabilities for network-wide subscription methods.

EOS NetDB architecture

Notify

SSU
BGP
Go
VXLAN
One Config
SysDB State
NetDB
eAPI
SDK
MLAG

Publish

State-based inter-process communication

Network-wide publish/subscribe-notify

Cloud-optimised, route scale, analytics state

Figure NetDB: Network-wide publish-subscribe-notify state

Controller landscape

openstack
nuagenetworks
CloudVision

Cloud orchestrators	Network overlay controllers	Network underlay fabric controllers	Global cloud network controllers
Functions as an end-to-end platform across networking, storage and compute devices.	Functions across a virtual network using hypervisor-based virtual switches.	Software and hardware approach for automating physical network devices.	Network wide "portal" approach to workloads, workflows and applications.
Overall network integration	Virtual to network integration; Single-function focus	Improved programmable underlay networking	Multifunction network-wide for operational visibility and automation

The many facets of controllers

Arista partners with cloud orchestrators and network overlay vendors while offering solutions for fabric underlay and global cloud network controllers via EOS CloudVision for universal workloads and workflow automation for private or hybrid cloud deployments.

With the dramatic rise in cloud applications and leaf-spine-spline topologies, uniform workload automation and workflow orchestration is paramount. Gone are the days of tuning each and every application unwisely and inefficiently, the new era is here.

A determined pioneer
Too many companies fall by the wayside when they become protective or inwardly focused. Those that learn to adapt experience far greater success. For example, Microsoft and Apple have reinvented themselves for new markets, as newer cloud companies like Facebook, Amazon, Google, or Netflix have done. Pioneering companies anticipate trends, challenge the status quo, avoid lethargy and respond to new markets. Arista is a fitting example of a determined pioneer that is focused on non-stop innovation. Our customers have appreciated and encouraged us and we welcome the new era of cloud networking.

Arista CloudVision – network-wide cloud automation
Arista CloudVision® is a network-wide approach for workload orchestration and workflow automation delivering a turnkey solution for cloud networking. Arista has pioneered the SDN approach in the networking industry with its software-defined cloud networking, built on top of Arista EOS with programmable interfaces, publish-subscribe state separation, resilient fault containment and self-healing attributes. CloudVision extends the same architectural approach across the network for state, topology, monitoring and visibility.

This enables enterprises to move to cloud-class automation without needing any significant internal development.

Controller integration with key partners
A fundamental piece of cloud automation is the customers' ability to orchestrate workloads across their physical and virtual infrastructure. CloudVision is the platform for deeper integration with SDN controllers from Arista's ecosystem partner community.

CloudVision's abstraction of the physical network to this broader, network-wide perspective allows for a more efficient approach for several operational use-cases, including the following highlights:

➤ Centralised representation of distributed network state, allowing for a single point of integration and network-wide visibility and analytics.
➤ Controller agnostic support for physical and virtual workload orchestration through open APIs such as OVSDB, JSON and OpenStack plugins.
➤ Turn-key workflow automation for zero touch provisioning, configuration management and network-wide upgrades and rollback.

➤ Compliance dashboard for security, audit and patch management.
➤ Real-time streaming for telemetry and network analytics, a modern approach to replace legacy polling per device.
➤ Provides visibility and troubleshooting for underlay and overlay networks.

Summary
CloudVision is the unshackling alternative to decades of ad hoc silos of proprietary vendor lock-ins. Arista is proud of our ecosystem partner solutions, including Dell, VMware NSX, Microsoft Windows Server, Palo Alto Networks, F5, HP, Infinera, Rackspace and Supermicro, all working with us to usher in a new era of networking reality.

With the dramatic rise in cloud applications and leaf-spine-spline topologies, uniform workload automation and workflow orchestration is paramount. Gone are the days of tuning each and every application unwisely and inefficiently, the new era is here.

ARISTA

Cisco outlines key steps for digitisation to
help South African organisations become IoT ready

At Cisco, we have outlined the vital key steps that organisations in South Africa will need to implement in order to become fully digital to embrace the Internet of Things (IoT) era.

According to the Cisco Digital Vortex: 941 leaders whitepaper, most organisations are not ready to adopt digitisation. The findings show that:

25%

Only 1 in 4 leaders globally, say they are being sufficiently proactive about digitisation. This means that only 25 percent describe their approach to digital disruption as proactive – willing to disrupt themselves to compete.

45%

Likewise, digital disruption is not seen as worthy of board-level attention in about 45 percent of companies (on average across industries).

43%

In addition, 43 percent of companies either do not acknowledge the risk of digital disruption, or have not addressed it sufficiently.

33%

Nearly a third are taking a "wait and see" approach, in hopes of emulating successful competitors.

South Africa's approach to digitisation therefore needs to change. The IoT should be part of every business discussion as digital transformation can drive operational efficiency, increase employee productivity, garner greater customer loyalty and create new revenue streams.

As digitisation accelerates, cutting edge infrastructure will increase the country's GDP, reduce spending and create jobs. It will allow the government to extend the reach and impact of public services by converting insights into action. It will enable new and diverse groups of entrepreneurs to build businesses that will shape the world, while providing more accessibility and opportunities for education and technology-based careers.

As a result, it will ensure that countries become more competitive on the global stage. Having the right digital ecosystem in place will be a necessity to achieve any of these things.

In addition, as new industries emerge, spurred by smart investments in technology, the development of skills and talent will be critical for the economic success of the continent. We are committed to working with governments and organisations in South Africa to help develop ICT skills and support job creation.

Countries and organisations that do not drive their own digital business transformation will be left behind. Those that do will be pulled toward a 'digital centre' in which business models, offerings, and value chains are digitised, driving new revenue streams and substantive business outcomes.

To be ready for this digital transformation, organisations need to transform their business strategy and IT, connect everything, embrace analytics, and secure their technology and operations. Cisco is the only strategic partner with the solutions, people, partners and experience to help move clients from traditional to digital and beyond.

Cisco unveils country digital acceleration strategy

Our Country Digitisation Acceleration (CDA) strategy is a long-term commitment to a partnership with national leadership, industry and academia to deliver real outcomes faster and more effectively. It aims to accelerate the national digitisation agenda to grow GDP, create new jobs and invest in a sustainable innovation ecosystem across public and private sectors. At the core of the strategy are four key components for successful digitisation:

Research and education:
➤ NetAcad and Cisco Learning: Creating a more educated workforce, in the latest technologies and practices such as the Internet of Everything (IoE), capable of driving digital transformation.

➤ Intellectual property development: Fostering a culture of innovation through investments in research and university chairs.

➤ The Cisco Networking Academy: With skills development in mind, Cisco South Africa offers tailored training and mentorship programmes to accelerate the intake of skilled networking employees within the workforce. Cisco's Networking Academies prepare students for entry-level ICT jobs in partnership with the South African government. Since 1999, Cisco has invested approximately R100 million in training over 34 000 South African students in a variety of ICT skills, through 64 Cisco Networking Academies.

Entrepreneurship and innovation:
➤ Optimised commercialisation process: Taking innovations from idea to proof-of-concept to full product commercialisation.

➤ Venture capital investments: Cisco will work with internal, national and international venture capital entities to provide multi-stage funding for global technologies.

"As new industries emerge, spurred by smart investments in technology, the development of skills and talent will be critical for the economic success of the continent. Cisco is committed to working with governments and organisations in South Africa to help develop ICT skills and support job creation. Countries and organisations that do not drive their own digital business transformation will be left behind. Those that do will be pulled toward a 'digital centre' in which business models, offerings, and value chains are digitised, driving new revenue streams and substantive business outcomes."

Cathy Smith, General Manager of Cisco South Africa

➤ Acquisitions: Potentially acquire leading and innovative companies, adding to Cisco's 176 acquisitions since 1993.

➤ Innovation ecosystem: Cisco professionals will mentor start-ups through the ideation process and hold national innovation prize competitions and hackathons to further develop the most promising and marketable technologies that will drive economic, environmental and social innovation. An example of an innovative big data-driven disruptive project in South Africa is the Square Kilometre Array (SKA) project. When completed, the SKA telescope will produce data on a scale the world has never seen before. Cisco has invested close to R68 million, the largest single investment by the company into any one project made to date globally.

Economic clusters:
➤ Global distribution channels: Through the Cisco Country Digitisation Acceleration partnership, new and established businesses will gain access and export opportunities to markets worldwide through Cisco's global distribution channels.

Infrastructure:
➤ Building an infrastructure that gives citizens access to the finest healthcare, city services, education, entertainment and many other areas – all in a highly secure environment.

Country digital acceleration strategies underpinned by end-to-end cyber security solutions

Any business that embarks on a digital strategy should underpin that strategy with end-to-end cyber security solutions. With security issues regarding the Internet now being the number one priority in the digital era, more and more organisations in South Africa are increasingly seeing the value of adopting an end-to-end security approach that is as pervasive as the IoE itself. Businesses should embrace the shift towards security becoming a strategic business process.

Findings from the most recent Cisco Mid-year Security Report reveal that cyber attacks are becoming even more sophisticated as adversaries seek to be innovative in their approach to accessing networks undetected. An example of a key driver in security breaches is the reality that most applications developed are not secure by design as many developers use open source components, which result in vulnerabilities.

Cybersecurity solutions need to protect not just networks and devices, but also critical applications and data. Identity-based user and device authentication is critical to securing applications and data across mobile and cloud deployments.

Security is an important discussion within organisations and government bodies. While those discussions continue to evolve, it is important to note that threats to smarter and efficient operations exist right now.

CISCO ™

A quantum leap in converged infrastructure

Meet VxRail, a 'data centre in a box' for both enterprises and SMEs.

Technology budgets are under pressure. Yet companies cannot afford to abstain from new IT investments. Leading businesses in 2016 are digital businesses, placing cloud, mobile and big data at the centre of their strategy. Companies, large and small in all industries, are working hard to transform themselves and need new modern technology to support this transformation.

Converged and hyperconverged infrastructure as well as the private cloud are the foundations of the technology needed for this 'quantum leap'.

Yet those same technologies demand infrastructure that isn't efficient to establish and maintain, said Tom O'Reilly, CTO at VCE EMEA:

"No one has time to find all the different components that go into a data centre, procured from separate vendors, put them together and ensure that they all work together and then manage the lifecycle by keeping them up to date and secure."

The very notion of a data centre (DC) is already too big for many companies to digest, particularly in the SME world. At the same time enterprises that do embrace DC technology often find it filled with challenges.

To the rescue comes converged infrastructure.

The power of convergence
"Converged infrastructure has really taken off in the last few years," said O'Reilly of the $2 billion-in-quarterly-sales industry (IDC). "As a way to more simply procure, implement and manage IT infrastructure over its lifetime, it has been a game changer."

But VCE, the converged infrastructure division of EMC and pioneer of the concept, hasn't rested on its laurels. Its VxRail Appliance serves enterprises, but also enables smaller companies to deploy their own DC technology.

Many companies don't realise the value of DC infrastructure, either internally (private cloud) or hosted at a remote facility (public cloud). But this approach is the bedrock of 21st century business computing.

Data centres enable virtualisation, which allows for many more servers to operate on a single machine. These host various services from email and customer management, to data backups and collaboration tools, to data analytics and virtual desktops.

It has been called the third platform: a world of more flexible and cost-effective services that can be scaled according to a company's needs. An astute observer will note how smaller companies have been accessing enterprise-grade software at vastly reduced prices. This is a direct impact of the DC culture, which converged infrastructure simplifies on many levels.

Yet converged infrastructure has remained the domain of the big players – until now. With the launch of the VCE

VxRail Appliance, DC capabilities are made available to both smaller businesses and large organisations seeking to enhance the edge of their networks.

"The idea with VxRail is to offer a solution at the long tail of the data centre market," explained Chris Norton, VCE Country Manager for South Africa.

"Many companies want to give such features to remote branches or even specific departments, but found such niche deployments prohibitively complicated and costly."

"Potential new customers were also interested, but the cost of a large converged infrastructure solution sat beyond their capital investment expectations. VxRail solves this – it is a quantum leap in the market."

Data centre in a box
If put in a plebeian way, one could call VxRail a data centre in a box. It was co-designed with VMware, encompassing the hardware, network, storage, virtual

> Data centres enable virtualisation, which allows for many more servers to operate on a single machine. These host various services from email and customer management to data backups and collaboration tools to data analytics and virtual desktops.

> "The benefit for the SME market is access to enterprise data services at a much better price. Smaller companies are often very interested in how data centre technologies can help them grow, but the upfront investment is a barrier. Through VxRail they can start that journey on their terms and build their infrastructure unit by unit as they grow."

Tom O'Reilly, CTO at EMC VCE EMEA

and software layers needed for a one-stop solution. A single unit is able to provision 200 virtual machines in a matter of minutes, while scaling the infrastructure with additional VxRail boxes is easy. It was all designed for a minimum of fuss: if a VxRail unit starts to falter, replacing it is a quick and painless operation.

The system is ready-made with its own management software and it will plug into any existing VMware management ecosystem, as well as mix with current VCE products. Even its software has a ready-to-go charm: the VCE marketplace offers free and paid applications deployable at a click's notice.

"The important thing to understand is how this brings a new capability to the market," said Norton. "Enterprises can use VxRail to equip parts of the business with data centre capabilities without adding extra load to central infrastructure."

For example, if an enterprise has a remote branch that needs to crunch a lot of analytical data, it can deploy a VxRail server on-site, avoiding the pain of re-engineering its core infrastructure. It also

sidesteps the problems and costs of pervasive connectivity: whereas a branch would normally connect to private or public cloud servers, VxRail offers on-site autonomy.

The benefit for the SME market, he added, is access to enterprise data services at a much better price: "Smaller companies are often very interested in how data centre technologies can help them grow, but the upfront investment is a barrier.

Through VxRail they can start that journey on their terms and build their infrastructure unit by unit as they grow."

The whole point of VxRail is to offer simple, affordable and managed data centre capacity either on-site or in a public data centre. This is good news for companies facing the paradox of strained budgets versus the need to exploit technology.

"This VCE is very cleverly bringing all the knowledge and understanding of the enterprise space and making it relevant to the SME market. So we're changing the game in terms of how converged infrastructure is built, shipped and delivered."

About EMC

EMC Corporation is a global leader in enabling businesses and service providers to transform their operations and deliver IT as a service. Fundamental to this transformation is cloud computing. Through innovative products and services, EMC accelerates the journey to cloud computing, helping IT departments to store, manage, protect and analyse their most valuable asset – information – in a more agile, trusted and cost-efficient way. Additional information about EMC can be found at www.EMC.com

EMC²®

LTE - Making cities smarter

By Edward Zhang, Vice Director of Enterprise Wireless Solutions Sales for the Huawei Enterprise Business Group

Smart cities built on a foundation of ICT technologies, 4G broadband wireless in particular, can help solve some of today's most critical issues of urban development. These issues include unmet needs due to population growth, public security problems, intensified gaps in energy supplies, environmental deterioration, and routine traffic congestion that frustrates and wastes resources.

With ICT technologies, we are able to plan and manage cities more efficiently, better safeguard lives and property, improve operating efficiencies of major industries, and promote fundamental changes in urban development. Gaining these benefits demands commitments to a wide range of initiatives, often referred to as Safe City, Smart Grid, Smart Transportation, Smart Harbour, Digital Airport, Digital Rail Transit, and Smart Energy.
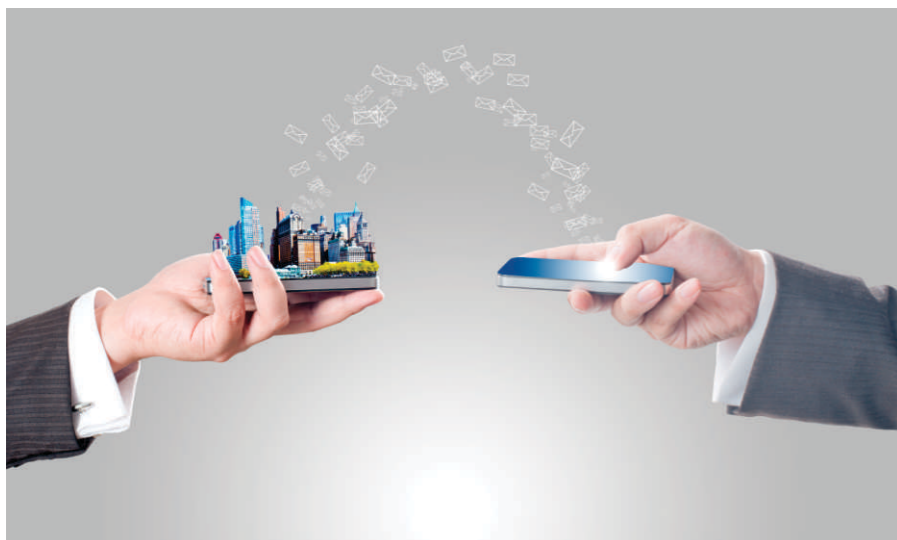
Three Smart City features
All-round control and smart management
Extensive data collection and analysis by Smart City service applications is set-up to help city leaders develop real-time status maps for their communities.

These barometer-like utilities are monitors for tracking a wide spectrum of immediate risks and form the basis of long-term models for managing investments in capital infrastructure.

With this insight, city stakeholders are able to plan, construct and manage their municipalities better. For example, by monitoring air and water pollution, cities can take prompt action when the effluent discharge from a particular enterprise approaches unacceptable levels.

Over longer timeframes, collection of traffic information can help city leaders better plan their roadways and public transportation routes, and river monitoring helps the city better prepare for and respond to the effects of droughts or floods.

Surveillance for public security
A variety of sensors and surveillance cameras deployed across the city can support command decisions and improve emergency response times. The combination of audio, video and sensor surveillance provides commanders with real-time insight into developing situations in the field.

When a potential problem is triggered, emergency response teams can dispatch personnel to the exact location in the most timely manner. This up-to-the-second input helps co-ordinate medical, firefighting and police departments to reduce injuries, save lives and minimise economic loss.

Paperless and mobile for efficiency
In Smart City operations, government agencies work in paperless environments with improved efficiency. Similarly, public utilities such as electricity, transportation (airports, harbours, subways, taxis and busses) and maintenance agencies have paperless Smart City support in mobile environments.

Three urgent problems to be addressed
The ways in which information is shared, processed and applied are critical to Smart City operations – and wireless networks provide the necessary efficiency for versatile data retrieval and re-transmission.

The achievement of "all-round control and smart management" requires a robust network infrastructure with well-executed support systems.

Additionally, a well-implemented Smart City system will ensure that information resources are shared between departments, i.e. surveillance systems need support intelligence to deliver comprehensive emergency response options to central dispatch and first-responder operators.

> With ICT technologies, we are able to plan and manage cities more efficiently, better safeguard lives and property, improve operating efficiencies of major industries, and promote fundamental changes in urban development.

> The ways in which information is shared, processed and applied are critical for Smart City operations - and wireless networks provide the necessary efficiency for versatile data retrieval and re-transmission. The achievement of "all-round control and smart management" requires a robust network infrastructure and well-executed support systems.

To achieve this goal, Smart City technologies are addressing the following three urgent problems:

➤ Achievement of real-time information transfer;
➤ Duplicated investment in information systems that have not anticipated the required scale of information sharing; and
➤ Application of new technology to everyday services.

Broadband wireless offers straightforward ways to help solve these problems. For example, LTE is a direct replacement for legacy narrowband trunking networks found in public safety and utility sectors. Legacy narrowband networks have focused principally on voice communications and are incapable of handling even moderate levels of data or video traffic.

The difference in response time between old and new systems is often minutes – even fractions of a second – versus hours.

Human factor research reveals that visual inputs account for over 80 percent of the total information absorbed by people. A picture or video clip will instantly clarify a situation that would be difficult to describe verbally, or in written language.

The absence of real-time image and video transmission in an otherwise modern ITC plant would inhibit the ability to make quick decisions at critical moments.

The lack of a dedicated mobile broadband network able to integrate voice, data and video services leaves cities to use three very different mobile networks: a narrowband trunking network, Wi-Fi data networks, and a 350 MHz video transmission network, each with its own set of limits.

The narrowband trunking network is poor at transmitting location information and images, each Wi-Fi data network covers only a small area, and a 350 MHz video transmission network cannot support HD video or multi-point upload services.

Moreover, because the three networks cannot interoperate, each requires the use of dedicated terminals. Overall, the inability to consolidate information across the three networks dramatically reduces efficiency.

LTE, the most advanced 4G technology, features high bandwidth and low latency, including support for multiple frequency bands; flexible bandwidth configurations; and a wide range of voice, data and video services with QoS guarantees.

These advantages make LTE the strongest choice for Smart City mobile networks.

It's not hard to grasp the need for
software-defined storage

Virtualising data storage presents a reliable solution to companies that need greater flexibility, simplicity and scalability.

Datacentrix' Graeme Dendy explores the benefits of software-defined storage (SDS) and how IBM is leading the way with its IBM Spectrum Storage products.

These products are part of a new storage software portfolio that is designed to address data storage inefficiencies by changing the economics of storage with a layer of intelligent software.

Data storage is becoming an increasing concern as storage costs soar and both structured and unstructured big data keep getting bigger. Most people who deal with data analytics, data in the cloud or collaborative data sharing are recognising the need for SDS.

While they may not be aware of the new buzzword just yet – or of its capabilities – they're aware that they need the tools to deal with storage management capable of managing petabytes of data and scalable access that is fast and reliable.

This is exactly what SDS provides. Yet what exactly is it, how did it come about and what value does it hold for businesses?

The International Data Corporation (IDC) defines SDS as: "... any storage software stack that can be installed on any commodity (x86 hardware, hypervisors, or cloud) and/or off-the-shelf computing

hardware and used to offer a full suite of storage services and federation between the underlying persistent data placement resources to enable data mobility of its tenants between these resources".

Put simply, the basic concept is that SDS has the ability to abstract the storage services, including management, data protection, and data placement from the hardware that has traditionally provided these services, and virtualise it.

When deployed intelligently, SDS helps CTOs and IT managers to:

➤ reduce spending on storage infrastructure;
➤ optimise storage performance to align with business and application needs;
➤ improve response times to new business requests;
➤ leverage the benefits of the cloud without performance, security, or management concerns; and
➤ easily extract business insights from unstructured data.

With these benefits barely scratching the surface of SDS's capabilities, it's no wonder IBM has committed to investing over $1 billion in new storage software built for the cloud over the next five years.

Currently ranked as the number one SDS provider across the globe, IBM's SDS portfolio, rebranded and released earlier this year as the Spectrum Storage portfolio, reduces costs by up to 90 percent and can centrally manage more than 300 different storage devices and yottabytes of data.

New technology such as SDS is about addressing customer needs and putting data in the right place at the right time and for the right cost.

Software-defined storage fits within the construct of a software-defined data centre

Software-defined data centre

Data centre fabric

Compute — Storage — Networking — Environmental

Software-defined compute* — Software-defined storage — Software-defined networking — Software-defined facilities

Evolution of the data centre

* Compute hardware virtualisation

Put simply, the basic concept is that software-defined storage has the ability to abstract the storage services, including management, data protection, and data placement from the hardware that has traditionally provided these services, and virtualise it.

Graeme Dendy, Datacentrix Business Unit Manager: IBM

This device interoperability is the broadest in the industry – incorporating both IBM and non-IBM hardware and tape systems. IBM Spectrum Storage portfolio includes key storage software such as Spectrum Accelerate, Spectrum Virtualize, Spectrum Scale, Spectrum Control, Spectrum Protect and Spectrum Archive. Those familiar with the portfolio may recognise that these options are not entirely new. In fact, the rebranding is as follows (table below):

The portfolio is designed to help customers transform to a hybrid cloud business model by managing massive amounts of data where they want it, how they want it, in a fast and easy manner from a single dashboard.

The software helps customers move data to the right location, at the right time, from flash storage for fast access to tape and cloud for the lowest cost.

To propel data storage to where it needs to be, solutions such as this can be easily added to any environment without ripping and replacing existing infrastructure. The aim is to bridge traditional IT environments with increased flexibility, automation, scalability and responsiveness.

New technology such as SDS is about addressing customer needs and putting data in the right place at the right time and for the right cost.
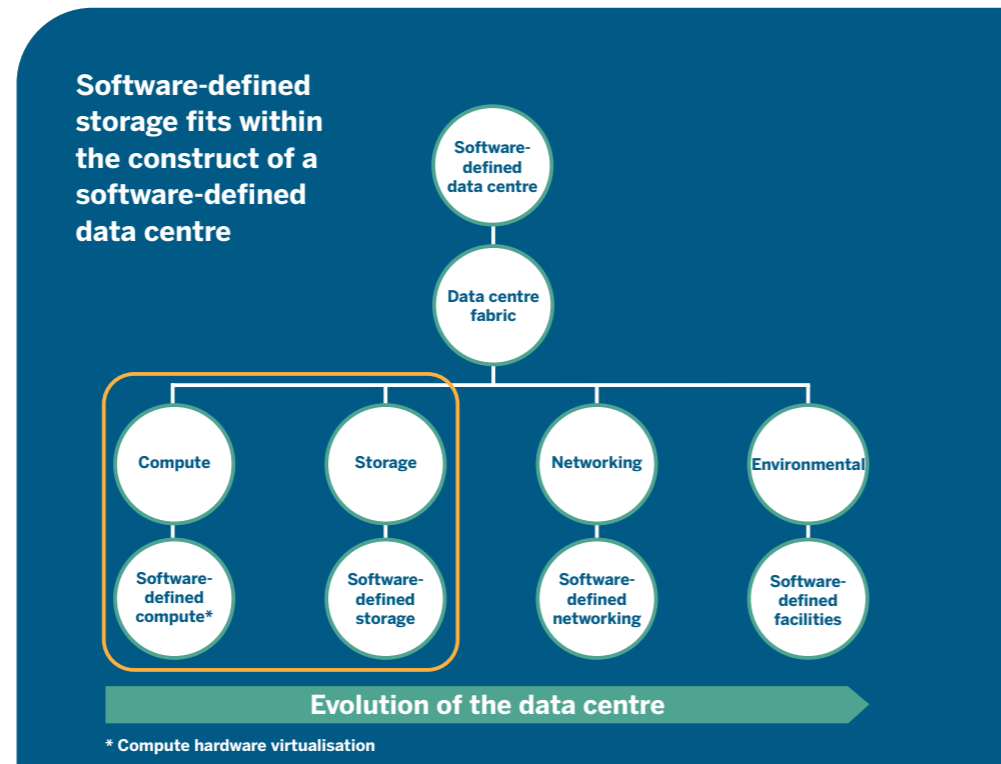
Previous offering	New name	Rationale
SAN Volume Controller	IBM Spectrum Virtualize	Core SVC functionality is virtualisation that frees client data from IT boundaries
Code name: Elastic Storage General Parallel File System	IBM Spectrum Scale	Scalability to yottabytes and across geographical boundaries
New XIV software offering	IBM Spectrum Accelerate	Accelerating speed of deployment and access to data for new workloads
Virtual Storage Centre	IBM Spectrum Control	Automated control and optimisation of storage and data infrastructure
Tivoli Storage Manager	IBM Spectrum Protect	Provides protection for client data through backup and restore capabilities
Linear Tape File System	IBM Spectrum Archive	Enables long-term storage of low activity data (archive)

Leading the IT evolution to
hyperconverged infrastructure

Disruption of the enterprise technology landscape continues as customers seek more innovative, manageable and cost-effective data centre solutions. The rise of converged infrastructure — integrated server, storage and networking systems that are easy to purchase, implement and manage — is a direct response to these demands.

This trend continues to accelerate in the form of hyperconverged infrastructure as customers ask even more of their converged systems, adding software-defined capabilities to their integrated systems. In fact, according to IDC, the hyperconverged systems market grew 162 percent in 2014, will grow more than 100 percent in 2015 and is expected to grow 60 percent a year though 2019.

Lenovo is helping customers capitalise on this trend with next-generation solutions that break down individual IT silos, such as servers, storage and virtualisation, to dramatically reduce costs through radical simplicity in private-cloud data centres. Lenovo data centres are unconstrained by legacy architectures and provide an unbiased perspective on how to help clients realise the greatest value through reduced cost and complexity.

Many IT providers approach hyperconvergence from only a software-defined storage perspective, as part of their storage portfolio. Our position is that

hyperconverged solutions go beyond simple storage consolidation and play a more comprehensive role at the heart of the data centre to deliver greater agility and performance.

In this landscape, customers increasingly need partners that develop innovation that really matters in the data centre. They need partners that are flexible with an open ecosystem strategy that is easy to integrate and helps reduce costs. And they need partners that are easy to do business with and serve as trusted technology advisors.

As a result, Lenovo and Nutanix announced a strategic agreement to develop, market and sell a new series of Lenovo hyperconverged appliances, powered by Lenovo x86 server technology and running Nutanix software.

This partnership and original equipment manufacturer (OEM) agreement brings together world-class hardware and software engineers to collaborate and develop hyperconverged appliances for next-generation, mission-critical workloads.

It represents the evolution of enterprise computing in a way that delivers cloud-like economics and agility, but with the security and reliability of on-premise solutions.

Your IT organisation is under increasing pressure to do more, do it fast, and do it cost effectively.

You need to invest in new growth opportunities, but resources continue to shrink.

Companies spend roughly 70-80 percent of their annual IT budget on just keeping systems running.

The extraordinary technology associated with this new Lenovo and Nutanix solution will enable unprecedented levels of speed and cost efficiency in delivering business applications and IT services.
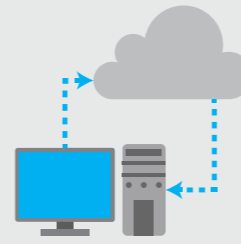
Simplify IT infrastructure
by integrating server, storage, and virtualisation in a centrally managed appliance with built-in predictive analytics.

Reduce costs
by implementing only what you need and then easily scale as needed.

Increase reliability
with trusted Nutanix infrastructure solutions and industry-leading Lenovo enterprise systems.

But there's more to this partnership than the exceptional technology itself. Lenovo and Nutanix are also collaborating on extensive go-to-market plans and customer support. In fact, both companies are investing in a highly skilled sales force at Lenovo.

We're enabling Lenovo's Business Partner network to engage customers and discuss how this partnership can benefit them. Service and support will be provided by Lenovo for an end-to-end customer experience, with Nutanix providing deeper software support if required. This is a natural partnership between two innovative, technology leaders, both invested in offering a truly differentiated hyperconverged solution.

Nutanix is a market leader in the hyperconverged software space. Gartner named Nutanix a leader in its 2015 integrated systems Magic Quadrant report. And the company's 52 percent worldwide market share speaks to the success clients are realising with the Nutanix approach.

In parallel, Lenovo is an industry recognised leader in x86 servers with a rich history in delivering one breakthrough innovation after another. Not only is Lenovo's enterprise value based on a heritage of innovation, but a foundation of data centre

Your bridge to the future
Software-defined solutions from Lenovo and Nutanix are designed to help simplify every aspect of the data centre infrastructure lifecycle – from procurement and deployment to management, scalability and support.

trust to vastly exceed customer expectations. This trust is grounded in customers ranking Lenovo number one in overall worldwide x86 server customer satisfaction according to analyst TBR.

Our Lenovo servers are also rated number one in reliability according to analyst ITIC. We also dominate x86 server application performance benchmarks and have built in enterprise security features that are the envy of the industry. The Lenovo leadership list goes on and we're proud to

partner with Nutanix as a superior enterprise hardware solution provider.

The combination of Lenovo and Nutanix is a breakthrough opportunity for customers to solve immediate IT challenges by capitalising on the dramatic benefits of hyperconverged infrastructure.

For more information please visit www.lenovo.com/systems/nutanix

Cost and complexity
Deploying, managing, and scaling data centre infrastructure is expensive and time consuming.

Information technology silos
Legacy infrastructure creates inflexible silos of specialised IT skills.

No time for innovation
Growth opportunities are missed when IT spends a majority of its time on operational issues.

SD-WAN: An agile enabler of enterprise
movement towards the cloud

Gone is the time where IT assets were limited to a handful of data centres. Gone is the time where users and applications were all bound by one unified MPLS network.

Today, businesses are increasingly mixing off-premise assets to their existing IT infrastructure. Productive users are everywhere, on-premise, but also on the road or at home. The Internet is becoming the backbone of enterprise communications.

As enterprises are becoming more hybrid, the shape of the network itself is dramatically changing. The underlying networks are getting more diverse in terms of performance and security. MPLS is now combined with the Internet using a variety of transports from DSL to fiber and even 4G/LTE.

With HD Internet Video or Unified Communication and Collaboration (UCC), the traffic mix and the communication requirements are getting richer and more dynamic.

The network has never been so heterogeneous, distributed and complex. Architectures built for the network as it was 10 years ago are rapidly losing relevance.

➤ Managing multiple WAN paths and distributed local Internet breakouts is becoming crucial, but lacks efficient solutions.

➤ Being too static, mechanisms like QoS become a nightmare to manage.

➤ While network performance can be controlled and optimised on-premise, guaranteeing performance for mobile users and/or off-premise applications is extremely challenging.

➤ Holistic visibility on the traffic requires more instrumentation devices than ever.

➤ Visibility on the performance delivered by off-premise cloud service providers is a new problem without a practical solution.

Over the past few years, a novel architecture has emerged to solve similar problems at the data centre level: Software Defined Networking (SDN).

Today, vendors are emerging with solutions to deliver guaranteed application performance to the modern users and workloads of the hybrid enterprise, by applying the SDN principles to the WAN in the form of so called SD-WAN solutions.

While the market for an SD-WAN solution begins to emerge, the requirements for an excellent SD-WAN solution appear clearly:

➤ Optimisation capabilities for on-premise and cloud-based applications like Office 365 or Salesforce.com.

➤ A network and application aware path selection capability to direct traffic on the appropriate network (MPLS, Internet...).

➤ Dynamic tunneling with central control plane allowing secure backhauling of branch traffic to the corporate data centre across the Internet.

➤ A simple interface to zScaler or other cloud-based security services enabling local Internet breakouts without requiring further investment in on-premise Internet security appliances.

➤ Inbound QoS to manage local Internet breakouts and protect business Internet against surges in recreational Internet.

➤ Deep and wide visibility on all assets interconnected by the SD-WAN with holistic visibility on network usage, performance and integration with end-user experience monitoring of on-premise and SaaS applications.

Wimpie van Rensburg, Country Manager for sub-Saharan Africa at Riverbed Technology

Today, vendors are emerging with solutions to deliver guaranteed application performance to the modern users and workloads of the hybrid enterprise, by applying the SDN principles to the WAN in the form of so called SD-WAN solutions.

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4 reasons it's time to reinvent the WAN

More complexity? More visibility.
Increased encryption makes applications difficult to identify, manage and prioritise to ensure service level agreements.
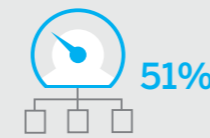
51% Complexity is the primary obstacle to mastering application performance.[1]

>60% By 2018, enterprises will have at least half of their infrastructure on cloud-based platforms.[2]

(1) Forrester, "Think You've Mastered Application Performance? Think Again," July 2013
(2) Digital Business, Rethinking Fundamentals

More hybrid networks? More security.
The Internet is an integral part of the enterprise WAN, challenging IT to efficiently provide access to applications and cloud services without sacrificing security.

Top factors driving change in the WAN:

37%	supporting real-time applications[3]
27%	increasing security[3]
26%	improving application performance[3]
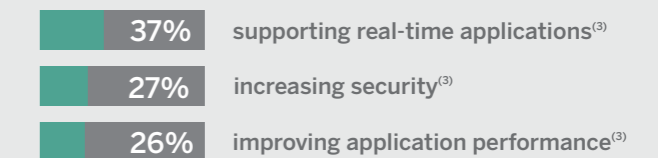
(3) Webtorials: 2015 State of the WAN Report - The Software Defined WAN Emerges

More video? More bandwidth.
Bandwidth demands are increasing with video fast becoming the popular traffic type for bandwidth consumption.

#1 Video will be the number 1 application to consume enterprise WAN bandwidth[4]

(4) Gartner, WAN is the new LAN

More business at the edge? More control.
As more business gets done at the edge of the enterprise, more applications are moving to the cloud to accommodate mobile and branch workforces.

35% By 2017, 35% of new applications will be cloud-enabled.[5]

(5) 2015-2017 Forecast: Cloud Computing to Skyrocket, Rule IT Delivery

In addition, a proper SD-WAN central management console is one that marks the start of an era of dramatic improvement of manageability and usability of control capabilities like QoS, path selection or VPN management.

Ideal SD-WAN management consoles expose to the users an intuitive interface and management plane based on high level abstractions like applications, sites, uplinks or networks that matches the way they see their IT environment. Ideal SD-WAN solutions will rely on a control plane designed to support intent-based configuration that provides a translation of global parameters into local policies.

Thanks to SD-WAN, customers should be able to implement new, more efficient, configuration and change management workflows that make hybrid-networking capabilities really usable. SD-WAN has the potential to deliver to the business the performance and agility they need for business critical applications, while controlling and reducing network costs at the same time.

riverbed®

Business management solutions –
the foundation for exploiting digitisation

As mobility becomes an intrinsic part of everyday life, so digitisation is beginning to drive how people behave and interact with one another. It is leading to the creation of new models like Uber, which are shaking the foundations of traditional business.

These new digital operations don't require the same capital-intensive resources utilised by traditional businesses, clearly demonstrating how technology is replacing both traditional business models and traditional business styles.

What this means, says Wesley Ekman, Regional Sales Director for Sage Enterprise, is that when it comes to business modernisation, companies need to look at more than just modernising their technologies.

"There is definitely a case to be made for utilising smart devices to create better opportunities for the business to engage with its employees, customers and suppliers. However, real success requires not merely a change in technologies, but a change in the corporate mentality and in the understanding of the true impact of fully embedded technology concepts like the Internet of Things (IoT)," adds Ekman.

"Real success in a digitised world is not just about implementing a new system; it's about implementing a new way of thinking and a whole new approach to business operations. The reality is that although people today are talking less, they are still communicating more and the impact of all this information coming

> "Organisations seeking to unlock the true digital value of their business need to start somewhere when modernising their back-ends, and their ERP system is the perfect foundation on which to build this new approach."

Wesley Ekman, Regional Sales Director for Sage Enterprise

into the business can only be rationalised and used effectively if you have the right tools and the right mentality in place."

Whether it is a technician on the floor of a smart factory, obtaining mobile updates on the maintenance requirements for their machines, or a contact centre agent accessing Twitter feeds to answer client complaints, the employee needs not only the right technology, but the right attitude to effectively respond to this digital world. Ultimately, it is all about being able to effectively use the information coming into your business.

What is needed, then, continues Ekman, is a system that can store and analyse this information, a tool that can digitise and modernise the business and ensure that employees are supplied with the right information, on the right devices, at the right time.

"The modern business management solution is about a whole lot more than ledgers and warehousing. This system is the answer to storing and analysing the information required to empower today's highly intelligent and mobile workforce and enable them to do their jobs properly and make the right business decisions.

"Sage X3 technology provides the tools businesses need to digitise and modernise the way they interact with suppliers, customers and their own employees."

"Emerging technology trends like IoT are going to fundamentally alter every industry around world, and businesses can only exploit this quantum leap forward if their back-end is properly modernised and digitised."

"Organisations seeking to unlock the true digital value of their business need to start somewhere when modernising their back-ends, and their ERP system is the perfect foundation on which to build this new approach."

"Today's business management solutions have ERP moved far beyond the monolithic ERP systems of the past, as evidenced by the Sage X3 business management solution, which not only stores and analyses information, but delivers that information to the right people at the right time, thereby keeping your employees, your customers and your suppliers connected in a mutually beneficial ecosystem," he concludes.

About Sage X3

Sage X3 provides you with business agility without the constraints of typical ERP systems. Sage X3 has evolved beyond ERP – forget about high costs, lengthy implementation times, inflexibility and lack of scalability.

Sage X3's latest design means faster, simpler and more flexible business management tools for the connected enterprise, deployed in the cloud or the customers' environment of choice.

Sage X3 accelerates all core business processes, from purchasing to manufacturing, inventory, sales, customer service and financial management – all within one business management system that adapts to meet your company requirements, user roles and preferences – Sage X3 works the way you like to work.

Sage X3 is fully web based, available in a familiar web browser and accessible from any mobile device. Quick to implement and easy to manage, Sage X3 is equally versatile and will adapt to your IT strategy way down the road, whether you want to change environments or expand into international territories – Sage X3 will adapt with you.

Eliminate inefficiencies, ensure compliance and streamline operations with end-to-end integration of all your business processes to control costs and improve profits. Get the insight you need, when you need it, with powerful business intelligence and reporting tools.

Specialised needs for specialised industries are catered for with specialised functionality. Sage X3 provides for full integration with our world class Human Resources Management product, Sage X3 People, award winning CRM and cloud-based Inventory Optimisation tool, Sage Inventory Advisor.

Game changers
Intelligent systems that will transform business

The Internet of Things and Industry 4.0 are changing the way every business operates. The fusion of online technology with physical processes is opening the way to "Smart" organisations that provide superior, automated service.

Sage X3 business solutions capitalise on these innovations to ensure all data can be used, autonomously, to generate faster, flexible and more profitable controls throughout the business process.

www.sageX3.com

sage

The Databerg Report: See what others don't.

Identify the value, risk and cost of your data

Organisations across Europe, Middle East and Africa are hoping to harness the power of information in the face of a growing data deluge. This makes the findings from the largest independent research report into organisational data management, covering some 1,475 respondents across 14 countries, a must-read for IT executives.

The study, conducted for Veritas by research firm Vanson Bourne, looks at the issues surrounding the phenomenon of the Databerg and uncovers how organisations throughout EMEA are on track to waste more than ZAR11.8 trillion by 2020.

The report uncovers three seemingly unrelated attitudes at the strategic, organisation and individual levels that are driving up operational costs and adding unacceptable levels of risk to modern businesses. It also offers practical steps to take action and regain control of the Databerg.

The report is broken down into three sections as follows:
1. The symptom = The databerg
2. The issues = The attitudes driving dark data and ROT
3. The solution

The South African databerg
A new and largely ignored set of risks are threatening our organisations. The effects of today's exploding data volumes have gone overlooked by most South African business leaders. They may be forgiven for

this oversight. Previous leaders did not expect their organisations to cope with data levels growing this fast. Such a data deluge never previously existed.

We all need to pay close attention because the data deluge is not only set to continue, but to rapidly accelerate, with important consequences for organisations whose behaviour ignores the growing databerg. The databerg is made up of three elements:

1. **Business critical data:** This is data that is identified as vital to the on-going operational success of the organisation. We need protect and proactively manage business critical data.

2. **Redundant, obsolete and trivial (ROT) data:** This is data identified as redundant – or duplicate data; obsolete – no longer having business value; and trivial data – with little or no business value for us. We need to proactively minimise ROT data by securely deleting it on a regular basis.

3. **Dark data:** This is data whose value has not yet been identified. It may include vital business critical data as well as useless ROT data. Either way, it consumes resources. We need to explore and assign dark data, as either ROT or business critical data, as soon as practical.

58 percent of company data in South Africa is dark
The average South African organisation has just 10 percent of its data tagged as business critical, or clean data, which has a recognisable business value, as compared to an EMEA average of 14 percent.

At 32 percent, ROT data is at the same level as the EMEA average and dark data is 4 percent worse than other countries' averages. At 58 percent, South Africa has the third highest rate of dark data in EMEA.

Most of what South African and EMEA organisations are storing has little or no business value. This equates to wasted corporate resources of up to ZAR11.8 trillion in Europe, Middle East and Africa by 2020 if organisations don't change their behaviour around information management.

Databergs are not all bad. When they are well managed, business critical data is safeguarded and waste is minimised. However, we can only manage what we see. ROT is bad, but at least we know that dark data is the real issue for South African organisations.

Even the ZAR11.8 trillion EMEA figure may not tell the full story. The direct costs consumed by databergs in IT resources and management time do not account for the current and future investment cash, which they tie up and that could be better spent elsewhere. By classifying more of

their data, organisations would have a better view on how much money could be re-invested.

The behaviours driving dark data and ROT
Our everyday attitudes to data and our behaviour at the strategic, organisational and employee levels are causing dark data and ROT levels to grow. These behaviours include:

➤ **Strategic:** IT strategies and budgets based solely on data volumes, not business value.
➤ **Organisational:** A rapid adoption of cloud applications and storage under a false 'storage is free' premise.
➤ **Individual:** Employees believing corporate IT resources are free to use, both for corporate and personal use.

Take control of the databerg
So how can we shine a light on dark data to identify business value and risk?

➤ Having an IT policy stating ROT data has to be eliminated is critical especially as 4 percent of South African organisations currently don't. Once the strategy is in place, ROT data should be deleted on a weekly basis rather than quarterly. The more often we free up resources, the sooner cash flow improves.
➤ Just as 14 percent of South African organisations do, data needs to be classified based on the organisation's data retention policy rather than sensitivity, project or type. But, more importantly, a workable information governance journey for dark data has to be implemented.
➤ As more South African organisations migrate to the cloud, the number of employees using corporate networks for their personal use is growing, leading to more type of files such as photos (59%), personal, legal and ID documents (51%) or non-approved software (36%) being stored at work. Due to this growth, 35 percent of respondents in South Africa stated IT professionals should be worried about employees being careless with how they handle company data. This needs
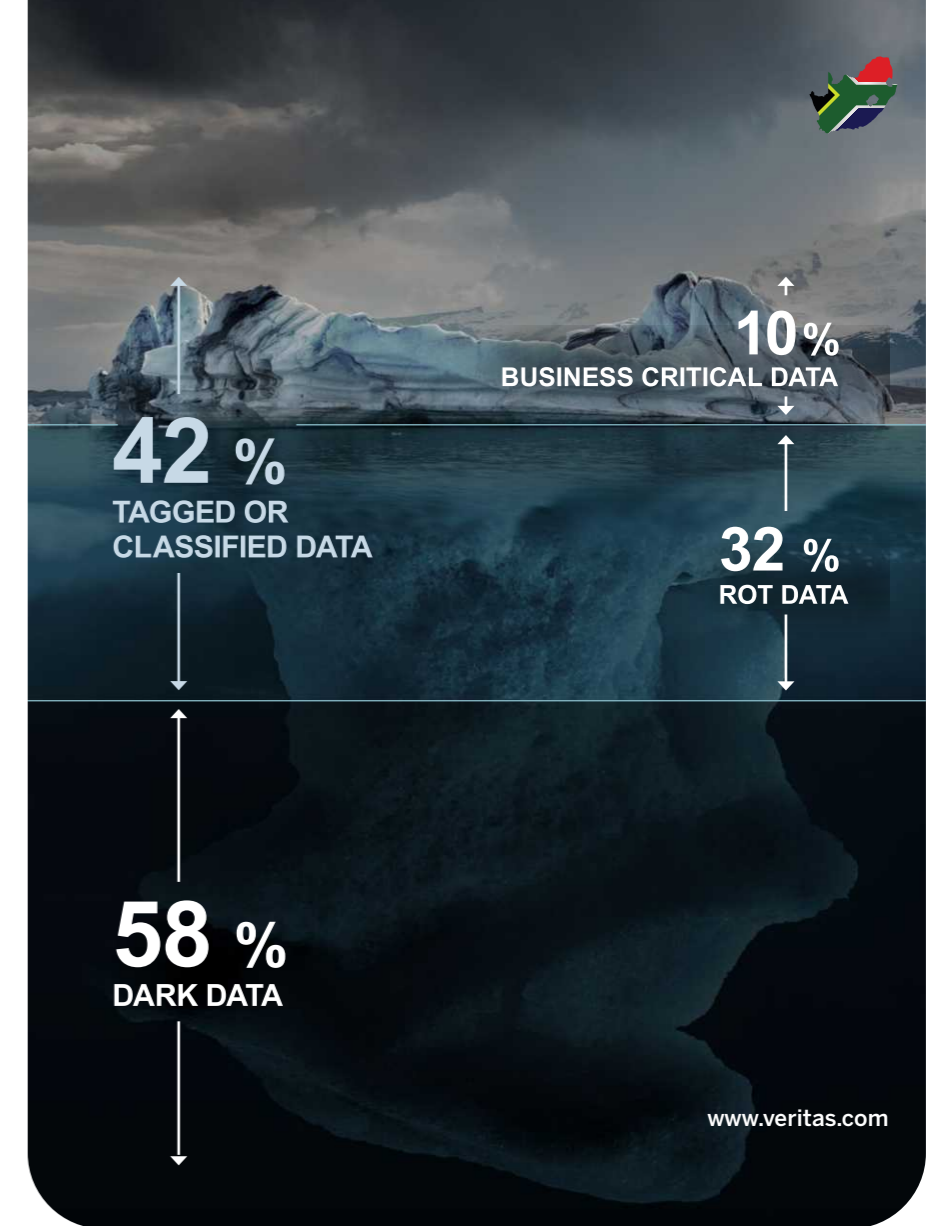
to be addressed by setting up procedures and nudging.

South African organisations need to take action
In order to avoid spiralling future data management costs and the risk of sweeping sanctions, South African organisations need to take action, now, and reduce their databergs by:

➤ Illuminating the dark data;
➤ Losing the ROT, which clogs our organisations; and
➤ Encouraging our employees to proactively maintain and manage the data, which is vital to South African organisations.

Few predicted growth in data volumes would one day outstrip our ability to control it.

Now, at last, it has. It is time for you to gain visibility, take action and once again assume control.

How Veritas can help
At Veritas, our mission is to help organisations harness the power of their information, wherever it resides, by driving availability and revealing insights.

➤ **Gain visibility:** Identify your dark data, expose the risks and extract the value from your information
➤ **Take action:** Make better business decisions to classify, retain or defensibly delete your ROT data
➤ **Assume control:** Define a workable information governance strategy, sponsored at C-Level, to encourage compliant user behaviour and reduce risk.

10% **BUSINESS CRITICAL DATA**

42% **TAGGED OR CLASSIFIED DATA**

32% **ROT DATA**

58% **DARK DATA**

www.veritas.com

The behaviours driving dark data and ROT

Strategic
IT strategies and budgets based solely on data volumes, not business value.

Organisational
A rapid adoption of cloud applications and storage under a false 'storage is free' premise.

Individual
Employees believing corporate IT resources are free to use, both for corporate and personal use.

VERITAS™

Software defined, not if but when –

empowering the digital business

By Ian Jansen van Rensburg, Senior Systems Engineering Manager at VMware sub-Saharan Africa

The proliferation of digitalisation is affecting us all in nearly every industry. Today mechanical engineering companies are outfitting equipment with sensors to reduce downtime and achieve improved productivity. Smart cars are communicating to a driver's phone, their watch and even laptop. We are in an era where the application is king, and everything is becoming software defined.

It is no longer a case of the big eating the small – but the fast eating the slow. This means you need to become a disruptor, you need to deliver services instantly, adapt to

market conditions rapidly, safeguard your brand and improve your customers' trust, and you need to do all of this securely. In short, your business needs to be fast, agile and secure – and it needs IT to deliver a future-proof cloud strategy that enables all of that.

Bridging the fear factor
The concept of the digital business can instil a certain amount of fear in the minds of IT. It's a new frontier to manage when IT has just got their heads around managing the infrastructure and keeping the lights on. Digitalisation implies applications, clouds, more devices, new infrastructure, new ways of thinking and more importantly new ways of managing all of this as a cohesive unit that still answers the primary business motivators of an organisation.

Where do you start? Perhaps here it is important to take into consideration businesses' primary motivating factors … namely, improving customer experience, growing revenue and making larger profit margins.

The big ask of IT is not just how they propose rolling this out, but also where they fit it into the bigger picture. This is where the notion of "software-defined everything" fits in perfectly.

The software-defined business doesn't rely on legacy to help it scale, it makes use of legacy systems as a base and then provides IT a new approach to rapid application development and roll out, a new approach to networking and security, agile and flexible clouds, and perhaps the most important thing – the ability to manage and oversee this as a single unit.

It is the nirvana of doing more with less.

But how?
To start we need to look at the heart of all IT systems – the data centre. The data centre is the entry and exit point of your cloud, it is the premise upon which your applications run, it is the heart of where your data resides and it is the connection point for all mobile devices.

When you apply a software-defined approach to your data centre you open up a host of opportunities that provide IT the flexibility to act and scale. The software-defined data centre is hinged around the concept of virtualising all aspects of IT. Yes all of them. Your network, your hybrid cloud, your security, your SAN and your mobile workspaces.

By applying a new virtual layer in the data centre, defined in software, you change the playing field.

The majority of our customers have already virtualised the compute layer. They know that they can now rapidly provision, spin up and deploy applications in a business environment and reduce the need for constant hardware provisioning – because of their use of virtual machines.

Now apply this to your storage layer. Think of the possibilities of spinning up storage in the same way as a VM – without having to continually add NAS devices each time you need more space. More space, at a lower cost, in a web-scale environment gives you the freedom to scale rapidly as well as provides a more active DevOps team the space they require to keep innovating.

But let's not stop there, let's add a virtual networking layer. The concept of virtualising the network is new and in some instances it's frightening for the customer as it's a new way of thinking.

Network virtualisation in simple terms is the ability to remove the intelligence off the device and place it in the software layer within your data centre. This gives you immediate flexibility within your network while at the same time improves visibility and manageability of the hybrid cloud.

By being able to provision networking in the same way as you do your VMs, IT is able to even further the speed of application delivery, which is the single most important success factor of the digital enterprise.

> It is no longer a case of the big eating the small – but the fast eating the slow. This means you need to become a disruptor, you need to deliver services instantly, adapt to market conditions rapidly, safeguard your brand and improve your customers' trust, and you need to do all of this securely. In short, your business needs to be fast, agile, and secure – and it needs IT to deliver a future-proof cloud strategy that enables all of that.

Ian Jansen van Rensburg, Senior Systems Engineering Manager at VMware sub-Saharan Africa

Network virtualisation has also led to another benefit for IT – security virtualisation. Security is still the biggest concern for CIOs the world over. Billions are spent annually on adding devices and layers to security lines of defence, most of which happens at the perimeter. But in today's threat landscape, security needs to start at home.

Making use of virtual security through microsegmentation you add a completely new layer to your security environment. Again the security now lies in the software. IT is able to ring fence environments, create individual layers at a server layer, VM layer and even a user layer – pulling in the same policies originally defined at the firewall layer and then applying them at the source.

Think about a golf estate. You have great security at the fence, at the gate and on the roads. But does this translate into each home? Now if each home is a VM, virtualised security replicates the perimeter security around each home, wrapping each one in a secure bubble – making use of only software.

Now that your infrastructure is virtualised, your storage, network and security is

virtualised. Lets think what all of these aspects can do for workload mobility in and out of the cloud.

Being able to mirror and emulate the same policies across private and public clouds enables you to truly take advantage of a hybrid cloud environment. It also enables complete visibility of workflow through clouds as well as management of your cloud, no matter where it resides.

This immediately negates the arguments that factors such as the costs of storage and the lack of security are holding you back from entering the cloud.

Lastly, add one more layer to this software-defined data centre. A mobile workspace layer that is again governed and led by the policies you have created at the heart of your infrastructure.

Suddenly the proposed threats of BYOD fall by the wayside as you are able to ring fence and deploy policies that are created within the heart of the business and push these out at a user level – all the while retaining the visibility and security of the device and the behaviour of the customer.

A software-based future
None of this is future-based – it is all happening and available today. Customers around the globe are looking at what the software-defined everything approach means to their business and seeing it as the premise on which to build their digital businesses.

With a software-defined data centre you can start to challenge the constraints of legacy applications and keep the lights on, but still charge forward with a mobile first approach to business. You can rapid deploy and develop cloud native applications to improve customer engagement, you can better collect and filter data, which you can then leverage to garner a better understanding of the customer allowing you to innovate even further and really drive improvements to your customer experience – internally and externally.

So ask yourself, is your business software-defined? If not – then when? Because the future is paved with software.

The software-defined data centre (SDDC)

Extending virtualisation across the data centre slashes CAPEX by 32% for branded hardware infrastructures and as much as 49% with white-label hardware.

An SDDC means radical resource efficiency – reduce the risk of over-provisioning.

Automation increases business agility and innovation.

The compelling economics and operational benefits make the SDDC inevitable.

The Citrix difference

Citrix is the leader in secure applications and data delivery and has been the leader in this space for over 25 years. During this time, the company has evolved and extended its capabilities to key Citrix solutions:

Desktop and application virtualisation

There are immense benefits to centralising your applications and data in your data centre and presenting them as a service across a delivery network.

Security is a quick win as the solution is secure by design, with no data or intellectual property residing on the end point. With Citrix application and desktop virtualisation solutions, you can control, at a very granular level, what an individual can do given what device he or she is on and on which network he or she is attached to.

You significantly reduce the cost of supporting your environment. This is a result of reducing the number of out-of-date versions on different devices by centrally updating the application and publishing it as a service to all users.

By ensuring that the latest version of an application is available, you deliver a better end user experience, lowering support calls and improving business outcomes as you are guaranteed that the user is using up-to-date information.

However, and probably of even greater significance, is that you enable an end user computing environment that is independent of device and corporate image. If your end users could use any device to connect securely to the application in the data centre, and if you did not have to worry about having to

maintain a certain image on the end point, imagine how it would change the way you support your company. Citrix desktop and application virtualisation gives you the foundation to build an agile and secure end user environment.

Citrix networking

Citrix is a leader in the Gartner quadrant for Application Delivery Controllers (ADC). The Citrix NetScaler has the second largest market share of any ADC vendor and Citrix is one of the fastest growing vendors in this space. An ADC is a load balancer on steroids.

NetScaler focuses on the layers 4 to 7 of the OSI networking stack and offers in addition to load balancing, application security, web application firewall, secure gateway access and is TLS1.2 compliance. (If your website or application needs to be PCI compliant the fastest way to do this is to front end your applications and website with a NetScaler.)

Citrix' main differentiation in this space is that the intelligence of the platform is not in silicon but in software. This allows us to add additional features very quickly and enables Citrix' solutions to adapt to the constant change in the industry at lower costs.

Citrix: Enterprise file and synch and sharing

Do you have the problem where your users are using consumer type products to store their critical files in the cloud and exposing your corporate data in an insecure way?

Do you need to have the flexibility to store data not only in the cloud, but on premise? Do your users want to access their data from any device – smart phone, tablet, or notebook?

Citrix ShareFile is considered by Gartner to be a leader. Citrix ShareFile secures your intellectual property while providing an excellent end user experience.

Mobility security

Citrix XenMobile is considered by Gartner to be a leader in the space of enterprise mobility management. Citrix focuses on Mobile Application Management (MAM), allowing end users in essence to have dual persona devices.

The device is not locked down and controls are only associated with work applications and data. XenMobile offers an excellent end user experience, while allowing IT to have the controls needed to secure the organisation's intellectual property.

Security for a new world

Our world is changing. More users, more devices, more networks, more threats. This means your clients need to spend more time keeping their network security up to date. But with the evolving landscape, traditional security isn't enough. Reactive threat protection doesn't catch the unknown. Point solutions, a firewall from one vendor, a sandbox from another, a spam solution from a third, were never designed to work together, leaving potential protection gaps. And hackers are getting smarter, more audacious and more persistent.

What can you do for your clients to keep them safe in an unsafe world?

Rule number one: Keep it simple
The more complex your network is, the harder it is to secure. If your clients run too many point security solutions, the greater the risk. Just the frequency of the updates between the different products opens up an enormous gap to be exploited.

Rule number two: Today's security is borderless
Not so long ago networks had clearly defined perimeters and security strategies were optimised for 'edge' protection. But the Internet, cloud, BYOD and Wi-Fi have all contributed to a massive increase in the attack surface.

Traditional networks have been architected to be 'flat' inside the perimeter. This means that once the network is breached, the intruder can easily move laterally throughout the network.

Rule number three: Slow is broken
Slowing down the network to implement security has never been a satisfactory strategy. Networks need to be fast.

But securing the network invariably slows it down. Your clients have been forced to find a middle ground between the two, a compromise that pleases no one.

Security without compromise
Fortinet has negated the need for compromise between speed and security by integrating protection into the network itself.

The entire Fortinet platform, tied together with FortiOS, provides a cohesive and integrated fabric designed to embed security across the entire infrastructure from client, to content, to cloud and back. The result is high security combined with low latency.

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Stop making compromises and standardise your client's security with Fortinet.

About Fortinet

Fortinet is a global leader and innovator in network security. Our mission is to deliver the most innovative, highest performing network security platform to secure and simplify your IT infrastructure.

We are a provider of network security appliances and security subscription services for carriers, data centres, enterprises, distributed offices and MSSPs.

Because of constant innovation of our custom ASICs, hardware systems, network software, management capabilities and security research, we have a large, rapidly growing and highly satisfied customer base, including the majority of the Fortune Global 100, and we continue to set the pace in the network security market.

Our market position and solution effectiveness have been widely validated by industry analysts, independent testing labs, business organisations and the media worldwide.

Our broad product line of complementary solutions goes beyond network security to help secure the extended enterprise. Fortinet is headquartered in Sunnyvale, California, with offices around the world.

Founded in 2000 by Ken Xie, the visionary founder and former president and CEO of NetScreen, Fortinet is led by a strong and seasoned management team with deep experience in networking and security.

McAfee Labs threat predictions preview cyber

threat landscape for 2016 and beyond

Intel Security released its McAfee Labs Threat Predictions Report, which predicts key developments on the cyber threat landscape in 2016, and provides unique insights into the expected nature of that landscape through 2020.

Says Vincent Weafer, Vice President of Intel Security's McAfee Labs: "To address the business, technology and threat landscape realities facing them, we must help organisations get to where they need to be, using technologies that will enable their businesses, and understand what kinds of threats could be confronting them tomorrow and into the future."

2016 threat predictions
The 2016 threat predictions range from threats around ransomware, attacks on automobile systems, to the warehousing and sale of stolen data, among other issues:

➤ **Hardware.** Attacks on all types of hardware and firmware will likely continue. Virtual machines could be targeted with system firmware rootkits.
➤ **Ransomware.** Anonymising networks and payment methods could continue to fuel the growing threat of ransomware. A greater number of inexperienced cybercriminals will leverage ransomware-as-a-service offerings.
➤ **Wearables.** Wearable platforms could be targeted by cybercriminals working to compromise the smartphones used to manage them.
➤ **Attacks through employee systems.** Attackers are likely to attack enterprises through their employees, by targeting, among other things, employees' relatively insecure home systems to gain access to corporate networks.

➤ **Cloud services.** Cybercriminals could seek to exploit weak corporate security policies established to protect cloud services. If exploited, this could compromise business strategy, portfolio strategies, innovations, employee and other data.
➤ **Automobiles.** Researchers will continue focusing on potential exploit scenarios for connected automobile systems lacking foundational security capabilities or failing to meet best practice security policies.
➤ **Warehouses of stolen data.** We'll be seeing the development of an even more robust dark market for stolen personally identifiable information and usernames and passwords.
➤ **Integrity attacks.** One of the most significant new attack vectors will be selective compromises to the integrity of systems and data. These attacks involve seizing and modifying transactions or data in favour of the perpetrators. We could witness an integrity attack in the financial sector.
➤ **Sharing threat intelligence.** Threat intelligence sharing among enterprises and security vendors will grow rapidly and mature.

Predictions through 2020
The five-year look attempts to predict how the types of threat actors will change, how attackers' behaviours and targets will change and how the industry will meet these challenges:

➤ **Below-the-OS attacks.** Attackers could look for weaknesses in firmware and hardware as applications and operating systems are hardened against conventional attacks. The lure would be the broad control potentially gained by accessing any number of resources and seizing administration and control capabilities.
➤ **Detection evasion.** Difficult-to-detect attack styles will include fileless threats, encrypted infiltrations, sandbox evasion malware, exploits of remote shell and remote control protocols, and the aforementioned, below-the-OS attacks targeting and exploiting master boot records, BIOS and firmware.

➤ **New devices, new attack surfaces.** While there has not yet been a surge in IoT and wearable attacks, by 2020 we may see install bases of these systems increase, attracting attackers. Technology vendors and vertical solution providers will work to establish user safety guidance and industry best practices, as well as build security controls into device architectures.
➤ **Cyberespionage goes corporate.** The dark market for malware code and hacking services could enable cyberespionage malware used in public sector and corporate attacks for financial intelligence-gathering and the manipulation of markets.
➤ **Privacy challenges, opportunities.** The volume and value of personal digital data will continue to increase. A market will develop around sharing data. This "value exchange," could change how individuals and organisations manage digital privacy.
➤ **Security industry response.** The security industry will develop more effective tools to detect and correct sophisticated attacks. Behavioural analytics could be developed to detect irregular user activities that might indicate compromised accounts. Shared threat intelligence is likely to deliver faster and better protection of systems. Cloud-integrated security could improve visibility and control. Finally, automated detection and correction technology promises to protect enterprises from the most common attacks, freeing up IT security staff to focus on the most critical security incidents.

"Keeping pace with, anticipating and pre-empting adversaries requires that we match the intelligence exchange, cloud computing and delivery power, platform agility, and human resource assets that cybercriminals regularly leverage," Weafer continues. "To win battles against future threats, organisations must see more, learn more, detect and respond faster, and fully utilise all the technical and human resources at their disposal."

For more information, please read the full McAfee Labs Threat Predictions Report.

Microsoft – what's new?

The world has changed dramatically since we released Windows 7. Today, security is more important than ever, and businesses need to enable their mobile workforce to be productive anytime, anywhere.

With Windows 10, we're bringing our entire family of experiences together on one platform from headless IoT devices to the phone, to tablets, PCs, up to the amazing new Surface Hub and beyond into the world of holograms.

With one platform, organisations can build universal applications that span across all Windows devices, while having one management paradigm and security model, saving costs and reducing IT complexity.

Let's look at all the feature innovations we're delivering in Windows 10 Enterprise. We can split these into the four pillars detailed below.

Protection against modern security threats

The last few years have seen a revolution in enterprise security threats. Windows 10 goes beyond just building bigger walls and delivers entirely new ways to help protect identities, data and devices.

Managed for continuous innovation

Windows 10 helps our customers to focus less on deployment and device management, and more on innovation and driving value for their business.

Familiar and productive user experience

Windows 10 provides a familiar and productive experience across your PCs, tablets and phones. The experience takes the familiarity of the Windows desktop and merges it with recent advancements, making you an expert from the start, and giving you the freedom to do great things.

Range of innovative devices

Device makers are delivering affordable innovations to power your business. A range of modern Windows personal devices is available to help you do great things at affordable prices. Windows 10 is designed to work with a range of devices you already own, and light up the features of new devices, from 2-in-1s, to devices that hang on the wall, to new holographic interfaces. Windows 10 opens up new ways to create, learn, collaborate and visualise.

Visit Windows 10 for business at www.microsoft.com/en-us/WindowsForBusiness/default.aspx to learn more about Windows 10, the impact it could have on your world and the way you work within it.

Mimecast Enterprise Information Archiving –
a single, secure and accessible cloud archive

Mimecast (NASDAQ: MIME) makes business email and data safer for more than 16,200 customers and millions of employees worldwide. Founded in 2003, the company's next-generation cloud-based security, archiving and continuity services protect email and deliver comprehensive email risk management in a single, fully-integrated subscription service.

Mimecast reduces email risk and the complexity and cost of managing the array of point solutions traditionally used to protect email and its data. For customers that have migrated to cloud services like Microsoft Office 365, Mimecast mitigates single vendor exposure by strengthening security coverage, combating downtime and improving archiving.

Mimecast Email Security protects against malware, spam, advanced phishing and other emerging attacks, while preventing data leaks.

Mimecast Mailbox Continuity enables employees to continue using email during planned and unplanned outages.

Mimecast Enterprise Information Archiving unifies email, file and instant messaging data to support e-discovery and gives employees fast access to their personal archive via PC, Mac and mobile applications.

The risk posed by increasingly sophisticated spear-phishing attacks is increasing, even some of the biggest and savviest organisations are being caught out.

These attacks succeed due to two key factors:
➤ They are designed to bypass traditional security technology; and
➤ There is lack of employee awareness and vigilance.

Exploiting these weaknesses can have a far-reaching impact, the estimated average cost of a breach now stands at $6.5 million[1] – and this figure is rapidly increasing.

We will explore how traditional gateway security can be improved to defend against malicious links in email and weaponised attachments – the two most common attack methods.

Information archive security
We've learned a lot from archiving 11 PB of data for customers around the world.

With an integrated cloud archiving platform, Mimecast Enterprise Information Archiving is highly scalable and resilient, combining automated tools for administrators to manage mailboxes, e-discovery and litigation support, and powerful applications for employees to access data quickly.

The end result is fewer IT resources, lower costs and improved retention management.
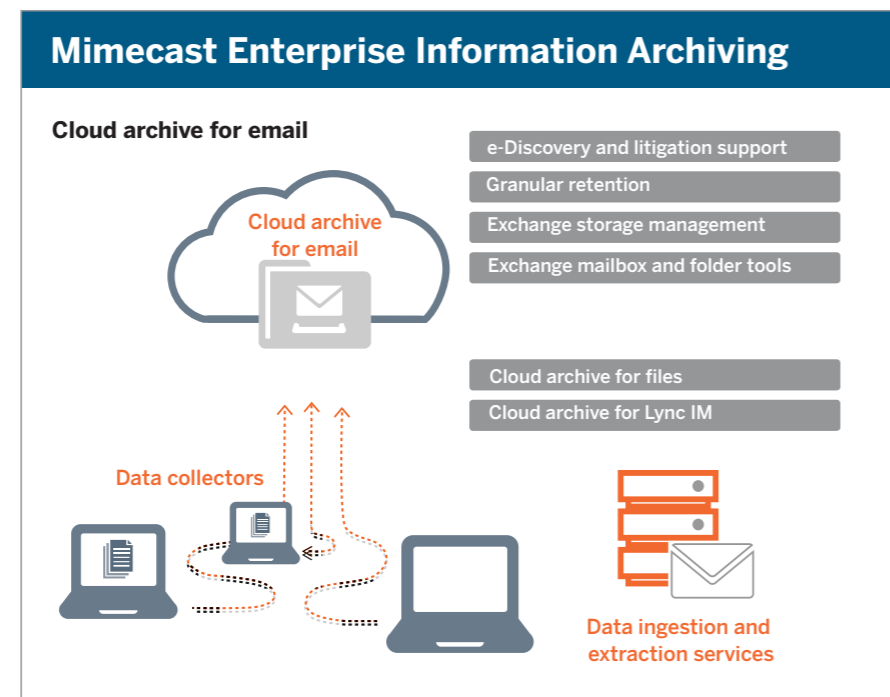
Email security

Archiving

Business continuity

Mimecast Enterprise Information Archiving

Cloud archive for email

Cloud archive for email

e-Discovery and litigation support
Granular retention
Exchange storage management
Exchange mailbox and folder tools

Cloud archive for files
Cloud archive for Lync IM

Data collectors

Data ingestion and extraction services

(1) SC Magazine, 27 May 2015, annual study from the Ponemon Institute and IBM.

mimecast®

NetApp makes data fabric a reality

WHEREVER BUSINESS TAKES YOU, YOUR DATA IS READY.
WELCOME TO DATA FABRIC

Technology is reshaping our world. Organisations must be faster, global, mobile, social, digital and on-demand all the time. IT can set business apart in this fast-changing business landscape. In the new world, digital data is core to an organisation's ability to capture new revenue opportunities with speed and at scale, while balancing cost and risk. Businesses can respond and innovate faster when data is free to flow where it is needed most. They can seamlessly manage, move and protect their data across IT resources spanning flash, disk and cloud. That's the promise of Data Fabric, NetApp's vision for the future of data management.

IT organisations are being tasked to take maximum advantage of the cloud, but to do so they must contend with applications and data that are being distributed across a growing number of incompatible cloud services.

NetApp helps them build a Data Fabric for the hybrid cloud that seamlessly connects resources and allows data management, movement and protection across internal and external cloud services. A Data Fabric built on NetApp technology is a software-defined approach based on the industry's most widely adopted storage operating system, which provides a consistent data format, an efficient data transport and a variety of data protection options for integrating with the hybrid cloud. This helps eliminate silos by enabling data to flow as applications are moved, whether from legacy platforms to cloud services with nearly unlimited scale, or from the public cloud back to IT-managed, private cloud environments.

How does the Data Fabric work?
The Data Fabric is about leveraging products, solutions and partnerships that enable a data-centric view of IT infrastructure in every layer of the fabric: platforms, transport, storage management, data management, ecosystem integration and service management. A common set of rich data services are enabled by software capabilities co-ordinated across on-premise, near-the-cloud and in-the-cloud environments.

What are the benefits of Data Fabric for customers?
➤ Business leaders will appreciate the freedom they gain to make the best decisions for the business. Data mobility allows data access wherever it is needed most to drive competitive advantage. And they can speed innovation faster with fewer resources.
➤ IT leaders have the choice to move their data among the hybrid cloud resources that work best for them. This enables IT to be more responsive to meet changing business demands quickly and provide new opportunities to innovate. They maintain control of their data to reduce risk and improve security. And they balance performance and cost requirements throughout the lifetime of the data.
➤ Storage architects, administrators and developers can extend their reach into cloud architectures. The Data Fabric gives them the opportunity to

use their operational skills in new deployment models that are on the leading edge of technology. Removing compute constraints frees them to focus their efforts on enabling end users to consume data in new, innovative ways.

NetApp and Fujitsu are global strategic alliance partners and are setting new standards for the optimisation of complete IT infrastructures. Together, they offer a portfolio of enterprise-ready storage infrastructures and dynamic server environments. All from a single source – including service, support and maintenance. NetApp contributes the expertise and intelligent solutions of a leading global data management specialist. Fujitsu offers highly developed data centre, network and desktop solutions, plus a wide range of services that includes consulting, implementation, managed services, hosting and cloud services.

FUJITSU

NetApp®

The era of VM-aware storage

For most of the past 20 years or more, conventional storage has been confined to physical workloads; there is block level storage and also file storage, which both support enterprise applications. Block level storage is a type of platform that is made up of vendors selling big storage boxes that could save the manageable amount of data a company held. Then there is file storage, which help companies to save and order the large amounts of data created by the digital transformation.

The storage world was simple and could easily be apportioned into SAN, NAS and DAS markets in different capacities, depending on the use case. Then virtualisation arrived, taking storage away from physical workloads, transforming the IT industry and bringing a number of challenges for legacy storage solutions. Now, along with SAN, NAS and DAS, storage has another term, VAS (VM-aware storage).

Conventional storage
The history of data storage reaches back for decades. The reality is there were large enterprise storage solutions for mainframes long before the PC era kickstarted an explosion in storage. While the initial focus was on direct attached storage (DAS) to PCs and servers, organisations increasingly looked over time to the network to deliver storage resources across their operations using NAS or SAN.

Conventional storage, whether direct attached or networked, has defined storage for decades – and would probably have continued to do so for years, if not for two unforeseen developments that changed everything: virtualisation and the rise of cloud technology.

Companies that start to think less in conventional storage terms and more in VMs, will better contain costs and amplify value.

Claudio Polla, Regional Manager, Middle East Africa, Tintri

The shift away from physical workloads
Today about 75 percent of all workloads in modern day data centres are virtualised and this number is expected to grow. Legacy storage technologies like DAS, NAS and SAN are ill-equipped to support virtualisation because they were designed for a physical world, decades before virtualisation even existed.

The two major storage bottlenecks when it comes to storing data are performance and management complexity. The biggest concerns for virtualisation and storage admins alike are application performance and random I/Os. Virtual environments generate far more random I/O patterns than physical ones and can seriously choke storage because servers can support upwards of thousands of virtual servers, each generating its own I/O stream, but conventional storage can't keep up.

To overcome the technological limitations of conventional storage solutions, vendors have used the benefits of flash to quench the thirst for higher IOs. Flash can achieve up to 20 times lower latencies and tens of thousands of IOPs, while offering high density and low power consumption. While rather expensive originally, the declining price of flash has helped storage vendors with struggling conventional physical storage systems to stick an expensive band-aid on their products to bypass the storage

bottleneck. Adding a flash layer seemingly solved the performance issues that customers were facing due to the increased workloads and demand of virtualisation and cloud computing.

The advent of VM-aware storage (VAS)
While they are faster, legacy storage systems with added flash still have a fundamental limitation, their approach is still conventional LUN and volume based.

Flash storage puts a lot of IOPS at an organisation's disposal, but it needs to know where to put the flash to work. This is essential if a company's virtualisation footprint is expanding so that it can grow as efficiently as possible. It requires that the storage admin is able to see performance and behaviour for individual VMs. Companies need to be able to see at the VM level to resolve the data centre disconnect.

When real-time analytics can lay bare the needs of individual VMs, they can also be effectively balanced across all-flash and hybrid-flash devices, for an even more efficient use of resources.

Companies that start to think less in conventional storage terms (LUNs, volumes, striping, etc.) and more in VMs, will better contain costs and amplify value. After all, storage doesn't drive business value, applications do. Only VM-aware storage can take the focus off storage itself and direct it at the applications that matter.

OpenText is the leader in Enterprise Information Management (EIM). EIM enables organisations to grow their business, lower costs of operations, and reduce information governance and security-related risks. OpenText focuses on the key drivers of business success by improving business insight, strengthening business impact, accelerating process velocity, addressing information governance, and providing security.

Our offerings span the needs of progressive organisations with solutions for Enterprise Content Management, Business Process Management, Customer Experience Management, Information Exchange, and Discovery. OpenText software helps bring structure to the unstructured by unleashing the power of information for more than 100 000 global customers.

For more information, visit www.opentext.com

OPEN TEXT

RSA intelligence-driven security solutions

RSA, the Security Division of EMC, is the premier provider of intelligence-driven security solutions. RSA helps the world's leading organisations solve their most complex and sensitive security challenges: managing organisational risk, safeguarding mobile access and collaboration, preventing online fraud, and defending against advanced threats. RSA delivers agile controls for identity assurance, fraud detection, and data protection; robust security analytics and industry-leading GRC capabilities; and expert consulting and advisory services. The RSA Security portfolio is grouped into four key areas:

Advanced security operations: Preparing for, identifying, co-ordinating, and responding to threats, including Advanced Persistent Threats (APT).
Governance, risk and compliance: Ensuring the organisation is compliant in a cost effective and efficient way that is aligned with both risk and business objectives. Enterprise GRC typically covers IT risk, third party risk (vendor management), business resiliency, audit and operational risk.
Identity management: Reducing risks to business operations related to digital data and systems by securing interactions between people and information. Protecting the organisation's processes, ensuring confidentiality, integrity and availability related to information, identities and infrastructure.
Anti-fraud: Fighting online fraud and cybercrime by diminishing or eliminating losses through the prevention of unauthorised use and/or acquisition of critical information such as credentials and identities.

For more information, visit www.emc.com/security/index.htm
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Security in the digital transformation era

The digital transformation phenomenon affects businesses of all sizes and sectors. To stay abreast of the changes, your company needs to embrace new processes and new technologies. Business executives demand that IT supports and enables digital transformation objectives. There is, of course, a catch. The catch is that in deploying new technologies to deliver digital transformation enterprises must expose their infrastructures to a decaying perimeter, where the number and types of security vulnerabilities are growing at extraordinary rates. Security is hard enough these days, operating within a highly dynamic threat landscape. Enabling digital transformation exacerbates these threats, but the security function cannot say "no" to digital transformation. How can you enable digital transformation in a secure and compliant way?

A new generation of security technologies and services are emerging, that together address the key challenges of security in the digital transformation era. But some key questions need to be answered before Security becomes fit for purpose once again:
➤ Are breaches inevitable? If so, why? If not, then how are they keeping the new threats out?
➤ How do we make our organisations more resilient to breaches?
➤ Do business executives understand the risks of data breaches? How do we as CIOs help them understand the risks?
➤ Has the physical perimeter disappeared? What consequences does this have for security?
➤ How is Security perceived by the business? What can Security do to improve its effectiveness in supporting business initiatives?
➤ How can Security best enable digital transformation?

We invite you to visit the Symantec team at the Datacentrix Business Showcase to discuss these and other key challenges that you may be facing as your organisation embraces digital transformation.

✓ Symantec™

Bringing a new touch to business

Tactile Technologies was established in 2001 and is a leading expert in the supply of professional touch screen technology across Southern Africa. Our portfolio comprises a wide range of touch technology, including touch screen monitors and tablets, screen computers and components, as well as auto-ID and locally approved payment terminals. Tactile Technologies is bringing touch to business in the following formats: desktop, open frame, digital signage (LFD), all-in-ones, tablets, industrial PCs, miniPOS units, handheld scanners and scanning engines, and components.

Tactile Technologies provides customers with a quality hardware platform for any professional application, from POS to logistics, warehousing and industrial manufacturing. Our experience covers the retail, gaming, financial services, industrial, mining and medical sectors as well as others. Our partnerships with carefully selected manufacturers and partners allow us to offer high quality reliable products. This product set, combined with our expertise, will help companies transform the way they do business and stay relevant in the digital era.

The Tactile package
Working with Tactile you will find a wealth of experience, product and market knowledge and a genuine passion for "touch as an interface".

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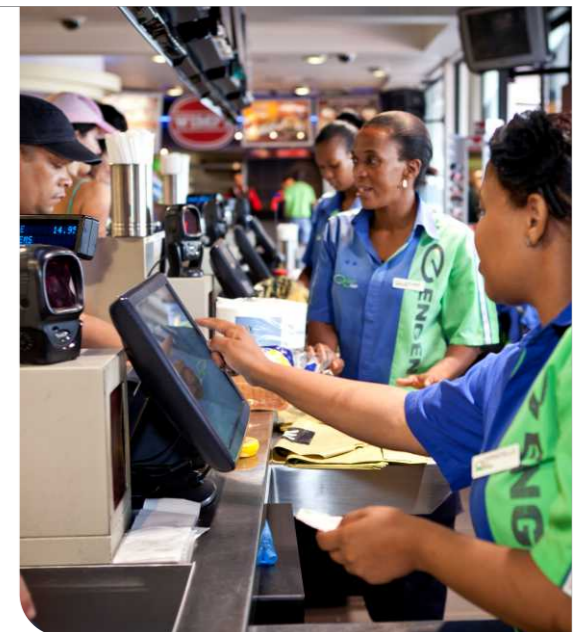
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