

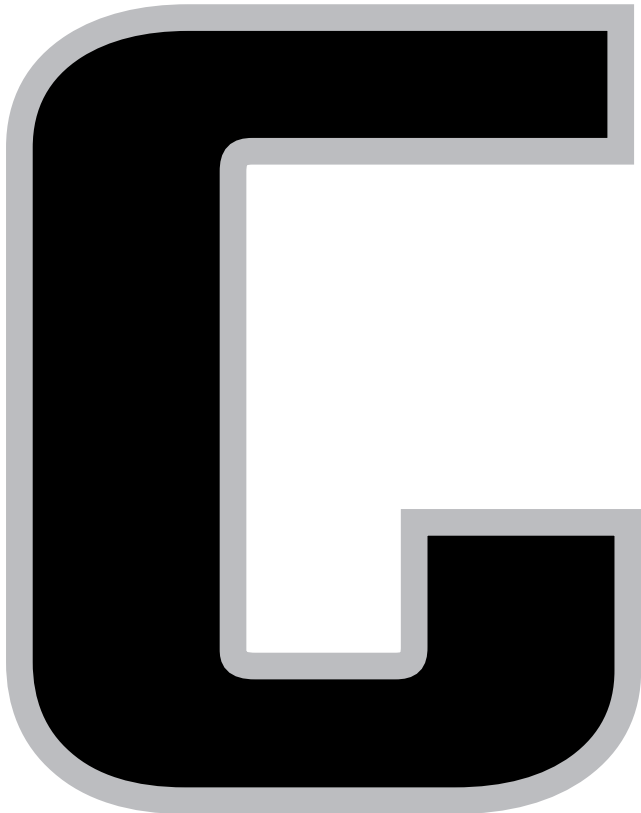
Warne Digital



Missing Economy

WHILST MANY BUSINESSES UNDERSTAND THEIR MARKETING AND CORPORATE STRATEGIES, THEY ARE FACING PIVOTAL DECISIONS IN THIS NEW DIGITAL ECONOMY OF MOBILITY AND LIGHTNING - FAST ACCESS TO DATA. GETTING THEIR IT STRATEGY RIGHT NOW WILL PROMOTE SLICKER BUSINESS DECISIONS IN THE FUTURE.
RORY COEN EXPLORES THE EVER-CHANGING CHALLENGES OF THE DIGITAL ECONOMY.

Harnessing THE Digital Economy



Companies are now being digitised from end-to-end – the CEO to the man in the warehouse to the salesman in the field – with ‘connected’ smart-devices to speed up processes. Others are negotiating with Cloud Service Providers (CSPs) about the scale of their IT switch to cyberspace.

IT Innovation is fast becoming a priority for Chief Investment Officers (CIO) across the region, believing if they can get the most out of their IT infrastructure, they will see greater returns-on-investment in core areas of business. IT is the motor under the hood of every enterprise and getting the right engine to power their profit-centres is the paradigm of good business.

It has fuelled a huge shift in how work is done in the last couple of years, and this will continue, putting pressure on CIOs to get their IT investments right. International Data Corporation (IDC) report that IT spending will grow by 11.6% in the region – and by 12.4% in Qatar – between 2010 and 2015. IT spending in Qatar reached QR2478.8 million (\$681 million) in 2010, a 3% increase from 2009, but jumped by 12.9% to QR2875.6 million (\$790 mil-

lion) in 2011. Telcos, government, oil & gas and finance are the top IT spenders in the country, as they lead the way to slicker business and profitability.

Their survey revealed that “increased availability and performance of IT supporting business systems” was how they wanted to spend their IT budget, while next on the list was a “standardisation of technological infrastructure, applications and processes”. In other words, they wanted an IT system that would maximise their profitability.

Cloud Computing

Cloud computing has been a hot topic for the past couple of years, and it will remain so for the foreseeable future. Its problems are well documented, but they’re being ironed out by degrees and it’s expected that a sizeable number of Qatar’s enterprises will run their business on the cloud, using whichever model best suits their specific needs and budget concerns.

Eyas Orabi, ICT Sector Development Manager, ICT Industry





INTERNATIONAL DATA CORPORATION
IDC REPORT

11.6%

IT SPENDING WILL GROW BY IN THE REGION

12.4%

IN QATAR - BETWEEN 2010 AND 2015.

IT-SPENDING IN QATAR REACHED

QR **2478.8** MILLION
(\$681 MILLION) IN 2010

JUMPED BY

12.9%
TO
QR **2875.6** MILLION
(\$790 MILLION) IN 2011.

Development, ictQATAR, holds the view that not everyone will make the switch to the cloud straight away, for varying reasons. "It's not a technology; it's a model," he says, "which some IT managers will resist, because it may steal their jobs. Others may have security concerns, but it's not unlike putting your money in a bank. Why do you do this? It's safer for you, as there are services and facilities there to protect it. I think businesses will start moving to the cloud during the next five years."

One of the great benefits of the cloud is the cost savings, especially for small to medium sized enterprises (SMEs). It's argued that the savings they make here would heavily out-weigh any security or reliability concerns currently associated with the cloud.

"For SMEs, they don't have to invest all at once [in applications, servers, networks, hardware] and cover their business in debt from the start; this is the most important aspect from an IT perspective. They will be able to spend on IT services as they go. IT staff is overhead for them after-all, and the cloud will provide a

Harnessing THE Digital Economy

capable solution without the need for IT specialists.

"For instance, Google and Facebook are now the standard on how to use applications, and nobody helps you to use them. When you write a message on Facebook, it refreshes in real-time and this has become the standard. If an enterprise comes to the cloud, this is the kind of efficiency they will get."

So if this imminent evolution to the cloud will bring significant cost-savings for enterprises, and IT spending will continue to rise by double-digits during the next three to four years, where will this extra capital be invested? If traditional IT resources are no longer required to keep businesses moving forward, then what will further hasten performance?

Microsoft, Public Sector Manager, Harb Bou Harb says, "Growth will come from areas such as Business Intelligence (BI), Enterprise Resource Planning (ERP) and other information management applications. The IT services market is forecast to be the fastest-growing segment of the Qatari IT market between 2011 and 2015, out-performing the hardware and software sectors. I think we will see more opportunities in sectors, such as financial services, healthcare, education and communications."

LYNC IN SYNC: MICROSOFT

Microsoft is heavily focused on transforming business by unlocking the potential of cloud computing for their customers in both the private and public sectors. With their 'software plus services' offering, businesses and consumers can recognise the convenience, security and reliability of both on-premise software and web-based services, with the choice of hosting certain applications on premise, others in the cloud, or a combination of the two.

Harb Bou Harb, Public Sector Manager says, "This is a very interesting time for the IT industry right now; a pivotal point in IT history that is having a profound effect on our lifestyle. The 'cloud' has reached mainstream status, infiltrating everyday life offerings, from e-mail to minute-by-minute status updates on aspects of our personal lives. Cloud services are changing how we deploy and use technology more and more."

Microsoft is 'wowing' enterprise customers with some new innovations, such as their Cloud Computing Solutions; Office 2010, Lync and Office 365.

Harb explains: "Microsoft Office 2010 is providing businesses with a roadmap to improve security, stabilise operating costs and make business operations more agile.

"Lync – which is Microsoft's Unified Communications solu-

Where is the vacuum?

Qatar Foundation, Director of IT, Sa'di M. Awienat says, "The IT industry is a dynamic industry – new trends are emerging every day; it's quite a challenge to keep your resources and people up to date with the latest and greatest technology. However, we don't have another MEEZA (see box) and I think the state needs more of this; needs more services offered to the SMEs. We need to improve the infrastructure when it comes to connectivity and reliability, the cost of connectivity is high here compared to other countries and this could be a limiting factor for cloud computing services because SMEs are keen on consuming these cloud services."

If enterprises are going to switch to cloud computing – to save costs – yet IT spending is set to grow by 15% in the next few years, where will all this extra money be spent?

"The demand on IT services will continue to grow," he said. "New services that we are not currently consuming will become mandated. As we get more advanced and connected, new services will be created that you need to invest in, and this is where this money will go – so this will create new opportunities for IT services that will help the businesses to streamline the



HARB BOU HARB, PUBLIC SECTOR MANAGER
MICROSOFT

tion – delivers on our vision to unify all of the modes of modern business communication, giving people a more collaborative 'in person' experience with features such as HD video, conference recording, as well as social features like status updates and activity feeds. In addition to transforming how people communicate, IT departments can use Lync to evolve their infrastructure and enhance or eliminate their traditional PBX systems, saving money and time.

"Office 365 is the software company's next generation in cloud productivity, and it ties together Microsoft Office, SharePoint Online, Exchange Online and Lync Online, in an always-up-to-date cloud service."

TO CLOUD FROM MOBILE: MANNAI

Mannai is Qatar's largest Systems Integrator and the leading organisation in the region that provides end-to-end, reliable IT solutions, by partnering with the likes of Oracle, Microsoft, SAP and ERSI. They help these partners to fine-tune and customise their products to meet the needs of the local enterprises.

Moni George says, "Our Company has really grown in the last 10 years, from 120 employees to over 700. We have made acquisitions in countries like India and Jordan to serve this country.

"We are focusing a lot on the cloud because we understand this is what the market wants; it brings down the cost-of-ownership and eases maintenance issues. It's a win-win situation for the customer and vendors like us.

"ERP is the largest selling solution today, followed by BI. As a company, we have made tremendous investments here, created many verticals which addressed the needs of the market. We have developed an ERP solution called Mannai, which is being leveraged by about 25 customers. We have a team of developers in India who are working specifically on this.

"Regarding mobile applications, we have been diligent enough to start with the banks, which use our applications to supply their customers with fund transfer functionality on their mobile-devices, as well as the ability to check their balance. Banks and financial institutions were the first to embrace this technology, but now government departments are also leveraging it.

"Perhaps the greatest success we've had in providing qual-



MONI GEORGE, GENERAL MANAGER, INFORMATION & SERVICES
MANNAI CORPORATION QSC

ity e-solutions was the development and implementation of the Self-Service Payment kiosk, developed for the Ministry of Interior. The aim was to improve the time-consuming, traditional payment transactions, by providing a 24/7 self-service kiosk that would facilitate most of the e-services provided by the Ministry, including issuance of exit-permits, traffic violation settlements and visa renewals.

"The users are verified through their Smart Cards, IRIS Scans or Biometric fingerprints, and can also pay for the services used, on the spot, through the integrated MOI payment solution within these terminals. These kiosks have been placed at Malls, MOI branch offices, and other such strategic locations within Qatar," he added.

organisation to become more productive and more profitable.

Business Analytics

Most businesses run an ERP, which manages its core financial systems and other functions which run critical business operations, such as purchase orders and invoices; it also facilitates the ordering of build materials for manufacturers, or managing suppliers - whatever it is a business does. This is essentially the 'data in'. The 'data out' of the system - referred to as 'Business Analytics' (BA) - is where it's given real practicality.

SAP MENA, Managing Director, Sam Alkharrat says, "In the first quarter of this year, 44% of our revenue was derived from BA, which reflects the growing desire of business leaders across the region to adopt new innovative technologies that ensure their IT systems allow for more real-time decision making".

SAP, Country Manager, Gergi Abboud says, "Our major strength at SAP are our ERP solutions, but our Business Analytics Layer is fast becoming a major force behind every busi-

ness. A lot of companies are trying to tie ERP with BA, because they go hand-in-hand; they want to make more sense out of the data that is being fed into their ERP, to make better business decisions."

Businesses have been trying to find ways of extracting meaningful data from their systems for years and now there's this tangible function which can do it in real-time.

Mannai Corporation QSC, General Manager, Information Services Division, Moni George, says, "We provide a comprehensive set of Business Intelligence (BI-DW) solutions on Oracle, Microsoft and SAP Business Objects Platform to help organisations leverage their data to understand their customers better, adapt faster to changing market conditions and improve profitability using available resources optimally."

Mobility

With high-speed fibre-optic Internet about to make its presence felt in the country, it should be a priority to really

>>(CONTD ON PG 50)

Educating a Nation

MANY LEADING IT COMPANIES ARE CITING THE RECRUITMENT AND TRAINING OF SKILLED STAFF AS A MAJOR CHALLENGE FOR THE INDUSTRY HERE. *QATAR TODAY* LOOKS AT HOW QATAR IS TRYING TO ADDRESS THIS ISSUE.

It was cited as a major issue by the National Development Strategy (NDS) Planners, who felt Information and Communication Technology (ICT) was a key enabler of successful education and training. "Mastery of technology is required to participate in and contribute more effectively to the knowledge economy." With the help of ictQATAR and the Qatar Foundation (QF), the stepping stones are being carefully placed to realise the 2030 Vision.

Qatar Foundation, Director of IT, Sa'di M. Awienat says, "Our central focus is around people and bringing world class education here to develop their skills to support the knowledge economy. We are supporting Qatar's ICT industry - acquiring innovation and partnering with industry leaders such as SAP, Microsoft, Cisco, HP and Oracle.

"Through the universities and schools under the QF umbrella, a big effort is being made to incorporate IT into learning - not just computer literacy, but the advanced usages of technology, enabling students to have access to information, promoting research activities, and leveraging the sophisticated IT infrastructure that is available to them."

Carnegie Mellon is one such college which focuses on Computer Science, and Kemal Ofazer - Professor of Computer Science at Carnegie Mellon University in Qatar - recently said "We should teach students who are studying computer science to be innovative in their problem solving, to create new ways of doing something that has never been done before.

"They are able to do this through computational thinking - understanding the thought process behind layers of abstraction and mapping the process. Our graduates have been hired by organisations in energy, finance, real estate, media as well as technology,

because their thinking and approach to solving problems easily adapt to many disciplines."

Industry leaders understand that to grow their business in this burgeoning economy, they will have to invest heavily in education and training. Many of them are collaborating with ictQATAR and are forging strong relationships with various learning centres around the country.

"BUILDING THE CAPACITY OF THE LOCAL WORKFORCE, MAKING THEM MORE IT LITERATE TO DEVELOP A KNOWLEDGE-BASED ECONOMY"

MICROSOFT

SAP are working on two fronts to drive education and training in Qatar, with ictQATAR and Qatar University (QU). They currently have 270 employees working in the region - with 15 in Doha - but have aggressive plans for expansion, hoping to double their staff in Qatar in the next two years.

University Alliance Programme

QU became the first university in the country to join the SAP University Alliance Programme (UAP). The initiative provides faculty members from the College of Business & Economics (CBE) with the tools and resources needed to teach students how technology can help enable integrated business processes and strategic thinking - and gives graduates the skills needed to add immediate value to the Qatari market.

Gergi Abboud, Country Manager for SAP, intimated that SAP had a very sound strategy to build capacity in the market and educate students on how to leverage their skills to be the best.

"The University Alliance Programme is a global programme in multiple universities, but what's unique here is that QU

"THERE'S A SEVERE SHORTAGE OF SKILLS. TECHNOLOGY IS MOVING QUICKLY, BUT YOU NEED TALENT TO WORK WITH IT, AND IT'S NOT AVAILABLE HERE"

MANNAI

agreed to put this programme as part of their Business School curriculum. Business students will be graduating with the ability to apply finance or accountancy procedures to a SAP system," he says.

"We signed a MoU with ictQATAR in January as part of their Digital Content Cluster. They created this cluster to incubate start-up and small-to-medium sized businesses (SMEs). We have agreed to support three anchored tenants on the cloud computing side, and we want to help these companies to produce cloud services. We are essentially hoping for a 'ripple effect', whereby other SMEs can leverage these services and drive forward. This in turn should provide the sustainable growth that will be required for this country to achieve its 2030 vision."



"A MAJOR CHALLENGE FOR IT IN QATAR IS TO ACQUIRE SKILLED RESOURCES"

GERGI ABBLOUD
COUNTRY MANAGER, SAP

Microsoft are also helping SMEs move to the cloud by allowing them to shift initially to a private cloud, and experimenting there, before deciding to move to a public cloud or not.

"A business can start in its own domain, on premise," says Microsoft's Harb Bou Harb, "and when they are ready, they can request to go off premise. We will support this decision; we provide a very elastic solution where you can use one cloud model, and switch it to another."

MEEZA

Awienat, from QF, says, "What we are trying at QF is to leverage more managed services and use more services from the cloud. We envision moving forward - through our partnership with MEEZA, who are building a cloud model which is being made available for us within QF, and of course other customers within the state of Qatar."

QF formed the company MEEZA to develop and stimulate competition within Qatar's IT services market. Supported by strategic alliances with a number of global partners, the new company's commercial activities are carried out with global IT giant HP Enterprise Services (HP-EDS). The organisation offers a wide range of services, from creating and managing IT infrastructure to providing full business and technology consulting.

For example, MEEZA recently signed a new partnership agreement with Qatar's Supreme Council of Family Affairs (SCFA) to provide IT solutions and infrastructure to help of them reduce costs, enhance productivity, and provide business scalability. ■

Harnessing THE Digital Economy



>>(CONTD ON PG 47)

promote its potential.

Abboud, from SAP, says, "The digital infrastructure in the country is a key factor for us – it's the enabler for all enterprises to unleash their potential in their workspace environment to the outside world; it allows collaboration in the full value chain – from the customer to their customers, from the customer to supplier, and from the customer to their partners – but it's all no good unless you have the devices to go with it.

"Smart mobile penetration is key, and we are really innovating here. There's a lot of interest in what we do in this country with regard to 'in-memory' computing. HANA gives your employees and executives the ability to run reports in a second on their mobile device. Traditional technology would have meant running a report

the previous evening to have it on time, and by then it's stale data."

Orabi, from ictQATAR, follows up on that: "There are different problems we can solve for SMEs to push them forward. One solution would be to build and harness an eco-system. If we start to think about the bare bones of this eco-system – and we try to solve the problems of companies by putting software applications on the cloud, so they can access them on their smart-phone or iPad; employees can be engaged and informed.

We're now connecting everyone and everything, and disseminating information very quickly; this is IT's real value – not the hardware and software on offer – but how it's used, how efficient and accurate it can be, and how fast you can access information" ■

A New Era of Crime

IT WASN'T SO LONG AGO YOU ONLY NEEDED TO LOCK YOUR FRONT DOOR AND SET THE ALARM TO DETER THIEVES, BUT THERE'S HARDLY A NEED ANYMORE, SUCH IS THE THREAT OF CYBERCRIME.

By RORY COEN



Cybercrime is a maturing threat to every business – small, medium or large – and Middle East CIOs are getting scared. Recent highly-publicised security breaches at top software enterprises will have focused their attention even more, as they put pressure on IT Security vendors to alleviate these incredibly sophisticated attacks.

One such security vendor, McAfee, reviews 100,000 potential malware samples per day, and identifies, on average, a little over half of these as new

and unique threats. What's outrageously startling is that it identifies over two million new, malicious websites per month. These threats have the capability of moving very fast to an end-point or network gate-way.

"These malware threats are very real," says Jon Parkes, Vice President, Pre-Sales EMEA, McAfee. "The malware market and threat landscape have matured significantly over the last few years. Five or ten years ago, the industry was run by young students hacking into websites for fun – exercising their capabilities – but now it's a business and a multi-billion dollar business at that. Cybercrime and cyber terrorism is now bigger than the drugs trade.

"They're not interested in getting a \$5 theft here and there either; they're looking at stealing millions from big companies, and the way they do this is by 'advanced persistent threats'."

Startling news when put into context, no doubt, but recent events have given his statement a lot of credibility.

Comodo manage the digital certificates used to authenticate websites, such as Google, Yahoo and Skype. In March of this year, they announced that intruders hacked into their system and made off with the means to create fabricated websites that work and look exactly like the authentic versions of these sites.

Epsilon – a legitimate e-mail distribution company – later disclosed that millions of e-mail addresses were lifted from its servers. Security experts were quick to warn of future and even more precise spear phishing attacks.

Sony's well-documented security breach this April, affected 77 million PlayStation Network users, where credit-card details, expiration dates, bank-account numbers, customers' names and addresses were all exposed to the perpetrators. Sony revealed that this data was stored in an 'outdated database from 2007'.

Parkes disclosed there were more malware threats detected by McAfee in 2010 than the combined amount for the previous ten years, and this was a trend that would continue into the future.

"There will only be more malware, more threats; more people writing code to make more money. The major difference is that they will really start to target their attacks on very specific things, maybe to extort money from certain companies. Possibly terrorism or even activism; those who aren't necessarily interested in



"FIVE OR TEN YEARS AGO, THE INDUSTRY WAS RUN BY YOUNG STUDENTS HACKING INTO WEBSITES FOR FUN – EXERCISING THEIR CAPABILITIES – BUT NOW IT'S A BUSINESS AND A MULTI-BILLION DOLLAR BUSINESS AT THAT"

JON PARKES,
VICE PRESIDENT, PRE-SALES EMEA, MCAFEE

money but just want to make a loud point."

McAfee have implemented a proactive method to deal with unknown requests to penetrate your device or network. It's known as 'white-listing' and only allows the 'known good'. It prevents all unauthorised requests from affecting your servers and devices.

"White-listing protects your assets," says Parkes. "Once they are recognised as 'good', they can change configurations and data. If the request isn't on the list, then we're either going to report it, or block it and stop it from running."

Network Security

A recent IDC Poll of Qatari IT Managers revealed that Network Security Solutions was top of their list when drawing up the security budget. The next priority was Content Security (anti-virus, web and messaging security) closely followed by Data Loss Prevention Solutions and Application Security.

Is it any wonder that network security is such a critical and hot topic in the IT world at the moment, what with the dissemination of Facebook, Twitter and other social media into every office of every work-place. The traditional formal structure that a company employed has been replaced by an informality which integrates people from every sphere of business. The business environment is evolving at a fantastic rate – and this is to be applauded and welcomed – but it brings the burden of tighter security.

Social networking has become a business tool for many organisations. They are seen as innovative ways of getting business done, acquiring new clients and customers, so it's not an option

to firewall these sites, to enclose your employees in an intranet bubble.

Sonicwall, Regional Director, MEA & Turkey, Shahnawaz Sheikh says, "Social networking empowers your employees. To know what's going on, your employees need the same tools as your customers. The role of today's IT security professionals is to secure an empowered organisation and to deploy empowered business-ready IT solutions."

And it's not just large organisations which should be panicking about security threats; SMEs may consider themselves a small target, but any company that is vulnerable is worth attacking. It's often a single negligent user – with limited network or administrative access – which can compromise the security of the whole business.

Prajit Arakkal, Director of Distribution Channel Sales for Symantec, explains, "Many SMEs throughout the GCC still haven't recognized the tremendous impact a disaster such as hacking can have on their businesses. Despite warnings, it seems like many still think it can't happen to them."

So it's no surprise that Internet usage increase is driving the most IT security spending in Qatar. Whilst it compromises an organisation's data and productivity, it's an indispensable tool for almost every business, but while this will remain their number one priority, another danger is surfacing.

Mobile Device security

IDC feel the recent proliferation of mobile devices will seem trivial to what lies ahead, as every individual will be sending and receiving data – for personal and professional use – on the go. Smart-phones and tablets will provide the computing power of enterprises of the future.

Juniper, Managing Director MEA, Juniper, Dr Samer K. Shaar says, "The most significant recent phenomenon is the emergence of the mobile device. If PCs and notebooks are growing at single digits, there's double digit growth in mobile devices; they're a very serious business device, not only to communicate and disseminate information, but also to do critical financial transactions.

"The mobile device industry is driving a lot of the ICT growth in this region. We expect there will be 250 million smart-device users in 2015. With this kind of adoption, it's a hacker-oriented market; not just because they can find ways of scamming your account, but because you are doing financial transactions by accessing bank accounts, and using your credit card for e-business, they can sniff this important detail and steal from you."

Juniper has been a leader for eight years in the golden quadrant

related to security software solutions, and are now investing in securing mobile devices; not only providing solutions to prevent and counter threats, but also doing the forensic studies to locate the hackers and repair the damage.

They integrated their range of security software offerings into one package called Junos Pulse, which runs intrusion prevention and protection, and has anti-spam and anti-virus capabilities. It was originally designed to run just on notebooks or PCs, before Juniper acquired a company called S-Mobile, which brought capabilities to implement it on every mobile device in the market, irrespective of what operating system was running.

"The most important feature of Pulse is the SSLVPN – Secure Socket Layer Virtual Private Network – that enables you to have a secure encrypted link, from a client mobile device into the back end of your system, to access applications such as your ERP, your customer management application or your bank portal. This is a unique solution and is distinguishable from others."

Arakkal, from Symantec, confirms, "Hackers are already taking note of this opportunity to exploit a new market, with Symantec's latest Internet Security Threat Report claiming that the number of vulnerabilities for mobile devices rose by 42 percent in 2010. Employees who download applications are providing cybercriminals with the ideal opportunity to use such sites and infect the individuals device with malware. The viral nature of these social networking services means that harmful messages can be spread for little expense."

App stores pose huge threats

'App stores' are on everyone's lips now, as they scramble to find the most cost and user efficient applications for their devices, but these stores are a haven for cyber-criminals, as Shaar explains.

"While commercial spyware applications are nothing new to mobile security experts, the greatest malware risk to all mobile operating systems involves the rapid development, distribution, and proliferation of applications through the so-called 'app stores'. Created as a means to distribute applications to mobile devices, app-stores provide an ideal transport mechanism for the delivery of malicious software to high volumes of mobile devices. App stores may be chartered and managed by mobile operating system developers, such as the Apple App Store, Android Market, Windows Marketplace for Mobile, BlackBerry App World, or Nokia's Ovi Store; by known third-party entities such as Amazon.com and its Amazon App Store for Android; or by unknown third-



"SMARTPHONE USERS NEED TO BE AWARE OF THE GROWING RISKS ASSOCIATED WITH THE CONVENIENCE OF HAVING THE INTERNET IN THE PALM OF THEIR HAND"

DR SAMER K. SHAAR
MANAGING DIRECTOR MEA, JUNIPER

party companies.

"Downloading applications from an unknown, unaffiliated third-party app store is known as 'side-loading'," continued Shaar. "At times it has been known to be a catalyst for the launch of renege applications infected by malware. Much debate has taken place in the industry regarding app-store security and, specifically, how applications – many times created by entry-level developers with visions of huge profits – should be examined, policed, and monitored. App store processes – of reactively removing applications identified as malicious after they have been installed by thousands of users – is insufficient as a means to control malware proliferation. There are specific steps users need to take to mitigate mobile attacks.

"Smartphone users need to be aware of the growing risks associated with the convenience of having the Internet in the palm of their hand, and could employ an antivirus solution – like Juniper Pulse – on their mobile device to scan for malware. Ultimately, endpoint security software is the best prevention against mobile malware," says Shaar.

There's no doubt that the region is beginning to focus on cyber-threats. IDC revealed that 'improved security of information and information systems' was an IT priority for many Middle East CIOs. McAfee, Regional Manager, Emile Abou Saleh says, "Security is really growing in this region now; companies know they have to invest. Possibly due to budget concerns they cannot implement a full security solution, but they're planning at least. Governments agencies and Telcos have a clear road-map which includes security." ■