computer news middle east

ISSUE 349 | MAY 2021 TAHAWULTECH.COM



ACRONIS'S CISO

HUAWEI'S VP OF ENTERPRISE NETWORKING

CYBERSIARA'S CEO



GOVTECH: SOFTWARE AG

HUMANISING DIGITAL CUSTOMER EXPERIENCES

YARA MILBES, HEAD OF MARKETING - MENA, TURKEY & PAKISTAN AT INFOBIP, TELLS US HOW THEY HELP BUSINESSES BUILD PERSONALISED CUSTOMER EXPERIENCES.





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6

Research has indicated that over 80% of us will not use an application ever again if we encounter a bad experience."

DELIVERING DIGITAL EXPERIENCES

here has been a lot written about the demands of the digital economy, but what exactly does that mean? An example of the demands of the digital economy is our diminishing tolerance levels for a poor experience with an application. Research has indicated that over 80% of us will not use an application ever again if we encounter a bad experience.

That is why a recurring theme in the new digital economy revolves around 'delivering seamless digital experiences.' Businesses can simply no longer run the risk of this as brand loyalty has become a thing of the past.

We live in a connected world where technology underpins everything we do on a day-to-day basis, which in turn has heightened our expectations. Put bluntly, customers that do not deliver digital experiences will not survive.

However, Infobip, a global omnichannel leader is helping businesses to cultivate and nurture personalised customer experiences in the digital economy.

We spoke to Yara Milbes, Head of Marketing – MENA, Turkey & Pakistan at the Infobip, for May's front cover story of CNME. In a brilliant interview, she explains in detail how they are leveraging their expertise to help enterprises build connected customer journeys.

On the front cover of GovTech we have a terrific interview with Software AG, who outline the role their technologies and solutions are playing in fueling the smart cities of the future here in the Middle East.

Ian Khan, is one of the most prominent technology thought leaders in the world, and in a candid interview with CNME, declares that social media companies need to be brought to heel for the damaging role it is playing in our societies. He believes regulation is a good thing, and that governments really need to get tough with the social media networking entities.

CPI Media Group in conjunction with Freshworks hosted a virtual webinar which examined the key IT trends that are set to dominate the ecosystem over the next 12 months.

Alaa Bawab, VP of Huawei's Enterprise Networking Business in the Middle East makes the case for greater bandwidth, data speed and security in order to meet the growing demand for OTT content.

We have other excellent op-eds from Siemon, AVEVA and Micro Focus, and excellent interviews with Carasti, Acronis and CyberSiara.

Enjoy May's edition of CNME.

Eid Mubarak!

Mark Forker Editor



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Digital Innovation Partner



CONTENTS

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with Software AG to foster more innovation, Cisco has opened a new data centre to serve its collaboration customers - and ServiceNow has completed the acquisition of Intellibot, which is designed to help businesses automate workflow.

- 10 Lyes Yahiaoui, CEO at UAE-based electronics recycling company Enviroserve, says that despite progressive sustainability initiatives being spearheaded by the UAE, there is room to do much more
- 16 Technologist and futurist lan Khan explains that it is now time to introduce regulation in an effort to curb the corrosive impact social media entities are having on modern society.



- **36** Elhadji Cisse, Executive Partner and MEA Head of Core at IBM, outlines how its technology is helping the Kingdom of Saudi Arabia to rollout its first instant payments system in another step towards a cashless society.
- **44** Carasti CEO, Claudio Esposito Aiardo, reveals how the car subscription application has transformed the automotive sector in the UAE.

46 Acronis CISO, Kevin Reed, talks about the impact the COVID-19 pandemic has had on the cybersecurity landscape and how the Singaporean-based security vendor is equipping enterprises with the tools to fightback.

FOUNDER, CPI Dominic De Sousa (1959-2015)

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NEWS

Raqmiyat partners with Software AG to foster innovation



Raqmiyat, a leading system integrator and a provider of Digital Transformation solutions and services, has announced a strategic partnership with Software AG to empower entities in the UAE to deliver data-driven intelligent solutions.

The partnership was signed by Rami Kichli, VP, Gulf and Levant, Software AG, and Saeed Mohammad Al Ghurair, Managing Director, Raqmiyat. The agreement will address customer needs to adopt innovation, gain results and grow sustainably with the line-up of the new Software AG solutions i.e., Application Program Interface technologies, webMethods, ARIS, Alfabet, IoT, and Analytics. Moreover, the collaboration will enable customers to drive digital transformation efficiently, quickly, and further cementing Raqmiyat's position in the channel landscape as the go-to distributor for digitised services.

Commenting on the partnership, Saeed Mohammad Al Ghurair said: "Software AG empowers entities in their digital transformation goals and this new partnership will advance the agenda to elevate enterprise customer capabilities and UAE's digital transformation plan".

Rami Kichli, added: "The new offerings will enable organisations to capitalise on the power of data and the digital experience and will further revolutionise systems and processes".

Cisco Announces New Data Centre to Serve Collaboration Customers

Cisco announced that it is bringing \ensuremath{a}

new data centre to Frankfurt, Germany, to serve customers using its Collaboration platform Webex in the European Union and the Europe, Middle East, Africa and Russia region. The new data centre in Frankfurt is scheduled for operation by end of June 2021.

Cisco's new data centre in Frankfurt is a showcase of the company's latest technologies. This includes the Cisco ASR routing platform that provides a high-throughput connectivity into the data centre, ideal for high bandwidth applications, such as streaming audio or video, or video conferencing.

Within the data centre, the Cisco Application Centric Infrastructure connects all components in a secure and highly scalable way, and it also offers capabilities for ease of management and



troubleshooting. The other key component of the architecture is the Cisco Unified Computing System (UCS) that combines industry-standard, x86-architecture servers with networking and storage. UCS provides all the server capacity needed for the solution and can offer automated computing scalability based on user demand. In addition, Cisco ThousandEyes' internet and cloud intelligence platform is used for visibility and insights into the digital delivery of applications and services.

The complete architecture is protected end-to-end by Cisco Firepower for enhanced Security. The new, highly resilient data centre will incorporate Cisco products and technologies that improve energy efficiency, including power supplies, internal components, and cooling systems, and run on 100% renewable energy.

ServiceNow to Acquire Intellibot to Help Businesses Automate Workflow



Josh Kahn, SVP of Creator Workflow Products at ServiceNow

ServiceNow, the leading digital workflow

company making work better for people, announced it has signed an agreement to acquire Intellibot, a robotic process automation (RPA) company based in Hyderabad, India. Intellibot extends ServiceNow's core workflow capabilities by helping customers automate repetitive tasks for intelligent, endtoend automation. ServiceNow intends to build Intellibot's capabilities natively into the Now Platform to enable customers to more easily integrate with both modern and legacy systems to drive productivity and strengthen existing artificial intelligence and machine learning efforts.

Josh Kahn, SVP of Creator Workflow Products at ServiceNow said, "With Intellibot, we will extend ServiceNow's ability to help customers connect systems so they can easily automate workflows and drive productivity".

"We are proud to join forces with ServiceNow as it continues to invest in powerful endtoend automation capabilities to make the world of work, work better for people", said Srikanth Vemulapalli, CTO and cofounder of Intellibot. "Our RPA combined with ServiceNow workflows will help businesses better connect disparate systems to accelerate innovation and thrive in a new world of work".



Philippe Jarre, CEO, Mindware Group (L) and Abiy Yeshitla, vice president, Technology, Gulf region, Oracle (R)

Mindware, today announced that it has been appointed a Value-Added Distributor for Oracle in 14 countries across the Gulf, Levant and North Africa regions. As per the agreement, Mindware will market and distribute Oracle's entire portfolio of market leading solutions including databases, applications, storage, servers, and Cloud Mindware is a member of Oracle Partner Network. Providing an insight into the relationship, Philippe Jarre, CEO at Mindware Group said, "Oracle has a very strong Cloud vision and is helping organisations drive forward their digital strategies by developing integrated Cloud technologies, offering both choice

Mindware Signs Distribution Agreement with Oracle in 14 Countries

and flexibility and making the customer's transition to Cloud-based IT environments easier".

Oracle has a unique dual region strategy that enables customers to deploy resilient applications in multiple geographies for disaster recovery and compliance requirements.

Abiy Yeshitla, Vice President, Technology, Gulf region, Oracle said, "Mindware's deep experience in developing channel partners and extensive reach across the region will further help us deliver innovative cloud solutions to customers across diverse sectors".



Ray Komar, Vice President of Technical Alliances, Tenable

Tenable, Inc., the Cyber Exposure

company, today announced a strategic partnership with HCL BigFix, a leading endpoint management platform, to bring risk-based insights to the vulnerability remediation lifecycle from assessment and prioritisation to remediation. The partnership launches with a new integration between Tenable. sc, for vulnerability management on-premises, and HCL BigFix's Insights for Vulnerability Remediation application, to swiftly identify and correlate vulnerabilities, prioritise them based on risk and act quickly to reduce

Tenable and HCL BigFix Leverage Risk-Based Insights with Strategic Partnership

technologies

to empower

and accelerate

modern

businesses.

remediation times.

The integration addresses the challenge of inefficient and siloed manual processes that are managed across Security and IT Operations teams which can leave high-risk vulnerabilities unpatched for too long. Joint customers can now leverage Tenable's predictive technologies directly within HCL BigFix to identify and prioritise the most businesscritical vulnerabilities that need to be addressed first. This vulnerability data is then automatically correlated with the latest recommended patch strategy, reducing time-to-remediation. Joint customers also benefit from the broadest set of remediation capabilities in the industry from HCL BigFix, both in terms of supported operating systems and a library of over half a millionremediation automation Fixlets.

"Many organisations try to tackle the vulnerability overload problem without the proper insight or workflows needed to ensure the most business-critical issues are addressed first. This leaves dangerous flaws unpatched for far too long", said Ray Komar, Vice President of Technical Alliances, Tenable. "Our strategic partnership with HCL BigFix is tackling this problem at its core by bringing our best-of-class solutions together to streamline vulnerability response workflows with risk-based insights".

"Enterprise customers often struggle with the sheer volume of reported vulnerabilities coupled with ineffective, manual prioritisation schemes as well as limited resources. This results in lengthy time-to-remediation, errors and, in the end, big windows of risk", said Kristin Hazlewood, Vice President and General Manager, HCL BigFix. "Our strategic partnership with Tenable is dramatically reducing remediation times. This is a giant step forward for organisations who need to secure their most business-critical assets".

NEWS

AVEVA Recognised with Frost & Sullivan 2020 Product Leadership Award



Harpreet Gulati, SVP, Planning & Operations Business Unit at AVEVA

AVEVA, a global leader in industrial

software, driving digital transformation for industrial organisations managing complex operational processes, today announced that it had been recognised with the Frost and Sullivan Product Leadership Award for its Manufacturing Execution System (MES) for Food and Beverage (F&B). This best practice award is bestowed on companies that consolidate or grow their leadership position by continuously innovating and creating new products and solutions that serve the evolving needs of their customers.

"This award highlights AVEVA's leading edge in the global industrial F&B software market", said Harpreet Gulati, SVP, Planning & Operations Business Unit at AVEVA. "Frost & Sullivan's recognition of the value of our MES offering is a great testament to AVEVA's work in the sector. Amid a volatile and dynamic macro environment, AVEVA is committed to helping organisations optimise their value chain and streamline their businesses through digital transformation".

Huawei: Optimising portfolio to boost business resilience

During the 18th Huawei Global Analyst

Summit attended by more than 400 guests of analysts, experts, key opinion leaders and media representatives from around the world, Eric Xu, Huawei's Rotating Chairman, shared the company's business performance in 2020 as well as five strategic initiatives moving forward.

According to Mr. Xu, Huawei will: 1. Optimise its portfolio to boost business resilience. As part of these efforts, Huawei will strengthen its software capabilities and invest more in businesses that are less reliant on

components for intelligent vehicles. 2. Maximise 5G value and define 5.5G with industry peers to drive the evolution of mobile communications.

advanced process techniques, as well as in

3. Provide a seamless, user-centric, and intelligent experience across all user scenarios.

Spire Solutions ventures into the Big Data & Analytics domain

The world has moved towards digital economies driven by data and artificial intelligence (AI). Both public and private sector organisations have started relying heavily on the power of data and the intelligence that can be derived from it to transform their service/business and make better decisions.

As per Market Research, the Middle East & African AI, Big Data Analytics & Cyber Security Market value was USD 11.78 billion in 2020, and it is expected to reach USD 28.36 billion by 2026. Yet, reliable and scalable data solutions, services, and consultants are far and few in the region.

To address this gap and help resolve big data and data analytics challenges, the region's leading value-added



Eric Xu, Huawei's Rotating Chairman

4. Innovate to reduce energy consumption for a low-carbon world.

5. Address supply continuity challenges. "Moving forward, we will continue to

find ourselves in a complex and volatile global environment. Resurgence of COVID-19 and geopolitical uncertainty will present ongoing challenges for every organisation, business, and country. We believe deeply in the power of digital technology to provide fresh solutions to the problems we all face. So we will keep innovating and driving digital transformation forward with our customers and partners to bring digital to every person, home and organisation for a fully connected, intelligent world".



Mohieddin Kharnoub, Chief Revenue Officer at Spire Solutions

distributor Spire Solutions is launching its Big Data and Data Analytics business unit.

Mohieddin Kharnoub, Chief Revenue Officer at Spire Solutions said "We are excited for launching our Big Data and Data Analytics unit which help our customers in their end-to-end data journey. Right from solving complex data engineering scenarios to building modern-day AI-driven analytics solutions, our goal is to make data matter and monetise it".

8

StarLink Celebrates Partner Excellence and Launches New Initiatives



StarLink, META's fastest growing specialised cyber and cloud VAD unveiled two key initiatives at the Annual Partner Summit 2021 held on the 8th of April. Zaidoun Arbad, COO at StarLink opened the session and shared the company's vision and channelfocused roadmap for 2021 that partners could benefit from to grow and remain competitive.

He commented that "StarLink has always been 'future-ready' at every stage in the evolution of the distribution landscape, and it is no different when it comes to our partner collaboration. Our aim is to grow stronger together, maintain continuous momentum and equip our channel community with the right tools and initiatives to progress and become profitable. It was indeed a pleasure to host our esteemed partners and we took the opportunity to felicitate 17 top partners for their outstanding contribution and support in 2020".

One of the key highlights of the event was the launch of StarLink Intelligent Automation business unit which aims to support the channel and end customers with industry specific digital solutions using cognitive automation, advanced analytics, AI, and other digital technologies powered by leading vendors in this domain.

D-Link Secures Three Red Dot Awards for Outstanding Product Design



DMS-106XT, DCS-8635LH, and DCS-8526LH (left to right)

D-Link Corporation today revealed

that their DMS-106XT Multi Gigabit Unmanaged Switch, DCS-8635LH 2K QHD Pan & Zoom Outdoor Wi-Fi Camera, and DCS-8526LH Full HD Pan & Tilt Pro Wi-Fi Camera received the Red Dot Award: Product Design 2021. The DMS-106XT is D-Link's latest unmanaged switch with five 2.5G Ethernet ports for uninterrupted, efficient connectivity, as well as one 10G Ethernet port for uplink or NAS connection. Its Smart Turbo Mode delivers Quality of Service and port-based priority for simultaneous multi-media services such as gaming and 4K streaming with just one click. The DCS-8635LH is an IP65 weather-resistant camera with 2K QHD resolution and 360-degree coverage with its motorised pan feature. AI-based features such as person detection, vehicle detection, and auto-person tracking ensure precise surveillance and protection of the home. D-Link's DCS-8526LH is a surveillance camera with 360-degree views in true full HD quality and advanced features such as pan and tilt technology, edge-based person detection, auto-tracking motion, and panoramic viewing. The camera is also a 2021 Taiwan Excellence Award and 2020 iF Design Award winner.

"D-Link is honoured and grateful to receive three product design awards this year from the internationally renowned Red Dot Award", expressed Mark Chen, President of D-Link. "This recognition further motivates us to continue producing products of the highest quality and innovation".

ENVIROSERVE

SERVING' TO BUILD A MORE SUSTAINABLE FUTURE

CNME Editor Mark Forker spoke to **Lyes Yahiaoui**, CEO at Enviroserve, a global leader in electronics recycling, to find out more about the key role they are playing in terms of helping the UAE meet its sustainability targets, the efforts being made by the IT industry to reduce its carbon footprint - and how the UAE needs to introduce new legislation that encourages greater sustainability across the board.

> n a candid interview, the charismatic CEO of Enviroserve began our conversation by highlighting how the company had evolved since its inception in 2004 – and highlighted how the explosion in the availability and affordability of smartphones globally moved them towards e-waste management.

"We started off as a refrigerant gas reclamation service tasked with the responsibility of capturing all refrigerant gases, which is a very hazardous gas that damages the Ozone layer. However, we then evolved the business model of the company to focus on specialised waste, which is essentially expiry waste that is required to be treated 100% environmentally. We then branched out into the growing e-waste segment of the market and established a phone processing facility, which was

primarily borne out of the fact that the recycling and waste management industry had become completely overwhelmed by the proliferation in the adoption of smartphones," said Yahiaoui.

Yahiaoui pointed out that the latest smartphones on the market had a much shorter lifecycle than that of their predecessors, which inevitably led to a larger quantity of e-waste, but he also illustrated that due to the 'connected' nature of the world we now live in and the central role devices play in it, on an individual level our carbon footprint has grown ten-fold.

"There has also been a huge rise in the development of electronic equipment and devices over the last 10 years, and we live in a digital economy that is fueled by technology. As a result of this shift as we became a society more dependent on technology, we jumped from 2KG per-person to 17KG in terms of our annual consumption. Now, that is just the average, in some more technologically prolific countries that figure could be 29KG per-person. Everybody has a tablet, laptop and a smartphone device and most households have 2-3 TV's, and when you factor in chargers and other appliances required for a particular device you can see how e-waste on a global scale has skyrocketed," said Yahiaoui.

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There is a lot of complexity involved when it comes to the process of recycling products like tablets, smartphones, dishwashers and other electronic appliances, and the dynamic CEO of the global recycling leader explained the different nuances involved and how they effectively breakdown and recycle a particular product.

"Any product that comes

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into an Enviroserve processing facility will be recycled to a rate of 96-98%. In terms of the process used to recycle the products we use state-of-the-art German and Swiss engineering, and the plant is made up of multiple modules that perform different tasks. We take the contamination out of the products and then we crush the products' and this is performed by machines, depending on the product will be the removal of magnets. We use air flow to separate the plastic from the metal - and once we separate the plastic and the metal, we then start separating the different metals such as aluminium, copper, and steel," said Yahiaoui.

The critical importance of the job carried out by Enviroserve cannot be understated, especially when you consider the very real and present issue of climate change that we face on a global scale, but whilst it is honourable profession, how do they make money?

"Well, it's certainly not an overly costly process, but it's not free either. It is like any other waste, whether it be industrial waste, food waste, or hazardous waste, treatment has a cost. We use complex technology, and our facility is built to handle e-waste at scale. Every product we have is recycled and treated into different raw materials. We call these raw materials commodities, and we sell them to producers from the automotive industry who need these materials, and the pellet industry, who develop pellets out of plastic, so every commodity has a market, because raw materials can be used in a wide variety of industries," said Yahiaoui.

Over the last number of years,

largely due to the concerted global movement towards a more sustainable world, evidenced by the Paris Climate Accord, more and more companies are placing a greater responsibility upon themselves to reduce their carbon footprint, especially in the energy-intensive world of IT and technology.

However, as Yahiaoui stressed those companies are very much of a 'developmental stage'.

"It has become evident that a number of the multinationals are trying to set the trend in terms of making environmental protection and sustainability a core part of their business. I would say they are still very much in the development phase in terms of their sustainability initiatives. But it certainly has become a major focus for many tech companies, and companies like Lenovo and HPE are really building business models around the topic of sustainability," said Yahiaoui.

Interestingly, he pointed out that whilst it is all well and good that large tech and IT manufacturing multinationals are getting their house in order in terms of sustainability, SMEs that deal directly in repairing laptops and machines have not subscribed to the sustainability and environmental protection agenda. "SMEs that are dealing with

There has also been a huge rise in the development of electronic equipment and devices over the last IO years, and we live in a digital economy that is fueled by technology."

fixing laptops and machines actually generate more e-waste than any of the larger companies, but unfortunately they are not part of the CSR environmentally friendly and sustainability initiatives that are being spearheaded by others in the IT industry. They are more commercially orientated. They harvest their equipment and re-sell it to traders, and once harvested by those traders, 90% of the product which is plastic will be thrown in the landfill, so that is actually a major issue that needs to be addressed," said Yahiaoui.

The CEO of Enviroseve reserved praise for the UAE leadership in terms of how they have tackled the issue of sustainability head on - and for creating an environment that fosters an ecosystem committed to making the UAE a more eco-friendly and safer place for all, but he said there is plenty of room for improvement.

"In the e-waste industry you need to be supported by the legislators and lawmakers in the country. There are many laws in the UAE that are very proactive and progressive in terms of sustainability, but there is still a lot to be done in relation to e-waste. We need to adopt an approach that is geared towards more treatment than landfill, and these models have already been introduced in Europe and the United States. We need more treatment, repurposing and recycling here in the UAE, so whilst the country has been very innovative in terms of pursuing sustainability initiatives, we can still do much, much better and individually take more responsibility in terms of our attitudes to recycling," said Yahiaoui. **cnme**

CYBERSIARA

'EYE' ROBOT

Dr. Mohammad Reza Beheshti

Founder and CTO at CyberSiara

CNME Editor Mark Forker managed to secure an exclusive interview with **Dr. Mohammad Reza Beheshti,** Founder and CTO at CyberSiara, and **Neil Shah,** CEO at CyberSiara, to find out how their incredible solution based on the unique characteristics of the human eye is leading the fight against cybercriminals targeting online forms and captcha technology.

> e began our conversation by discussing how the ongoing COVID-19 pandemic had reshaped the cybersecurity ecosystem.

It has caused huge disruption to our day-to-day lives, but it has yielded some huge positives in the form of our new-found flexibility in the way we work. The 'work-from-anywhere' model has been adopted on a global scale, out of necessity it must be said, but nevertheless the realisation that employees can work just as effectively and efficiently anywhere has completely transformed the way we think and how we define the workplace - and it has ultimately empowered the global workforce.

However, as a direct consequence of that seismic shift, many businesses were simply not equipped with the

13

cybersecurity acumen to keep their employees protected as they transitioned from the compounds of a physical environment to a virtual one.

According to Neil Shah, CEO at CyberSiara, cybercriminals are always opportunistic in nature, and agile enough to adapt their attacks according to changing market and industry norms and dynamics. They have exploited businesses through botnets and as a result we have seen a proliferation in phishing and ransomware attacks.

"When you examine the COVID-19 crisis, there was an evident acceleration of certain trends across multiple industries, and whilst the world was already moving online, cybercriminals are always looking at ways to exploit anything that they can, and the COVID-19 pandemic presented them with a new opportunity to target businesses and endusers," said Shah.

Shah added that he believes businesses need to focus on providing its workforce with the solutions required to better protect themselves – and said that emotion played a factor in so many attacks becoming successful.

"Businesses need to continue to train their employees and equip them with better tools to combat cyberattacks like phishing. There is also a lot more emotion in the world, and when there is more emotion in the world then those phishing e-mails tend to work better. Once someone clicks on the link in a phishing email, the bots jump into action attacking any There is also a lot more emotion in the world, and when there is more emotion in the world those phishing e-mails tend to work better."

online form. When businesses moved online there were so many websites that were just simply not prepared for providing access through their online forms, whether that be contact us forms, or having different forms of conversation instead of meeting people in person. In addition to this, e-commerce went through the roof, so there was a lot of credit card and financial information out there that had been stolen previously but needed verification - and people were using this as a pathway to get through," said Shah.

> **Neil Shah** CEO at CyberSiara

Shah also highlighted that technology is always evolving in this digital economy, and that when it comes to security you simply cannot afford to rest on your laurels and become complacent.

"Technology progresses, so what protected you yesterday won't necessarily protect you tomorrow. You really do have to be on that cutting-edge with your security experts to make sure you have the best tools to if not stop a bot, then at least apply the forces that will make them uneconomical, so people will stop using them, or choose something else," said Shah.

Online forms have become an easy gateway for cybercriminals to exploit and target, and prior to the emergence of CyberSiara's unique solution SiaraShield none available on the market were effective at combating the problem.

SiaraShield is the brainchild of Dr. Mohammad Reza Beheshti, and he explained in candid detail why it was easy for cybercriminals to be able to penetrate businesses through its online forms.

"We have two major solutions to recognise and detect bots online, and one is through the application of AI by analyzing traffic behavior - and all the elements within machine learning can allow it to determine whether the traffic is legitimate or not. However, the problem with this type of solution is that it is extremely easy to create a bot that can mimic human behavior, so they can copy and replicate your behavior, so when it comes to machine learning, the machine

does not know if this behavior is from a legitimate user, or a bot, because the output result looks the same," said Beheshti.

Dr. Beheshti added that the problem with current captcha technology is that they are all based on a single static image.

"Whether it is distorted text, or traffic lights you need to select, it is easy for machines to capture these single images and pass it to the machine learning algorithm. It then deciphers the image and returns the answer back to the form and submits it. The accuracy of machine learning in terms of recognising these images is far more accurate and faster than real human users. The current human recognition success rate is maximum up to 65-70% for the first attempt, but the success rate of machine learning is over 99.95%," said Beheshti.

Dr. Beheshti was able to identify that there was a major flow in this type of security, and he spent 6 years researching the topic as part of his PhD. The role AI and machine learning has been well-documented in terms of the impact they are having in our lives and on major

I basically converted and reversed engineered this mechanism into a mathematical algorithm that produces images that once you look at these images it will trigger your transsaccadic memory unconsciously." industries, with many tech skeptics saying the machines are going to take over!

However, refreshingly during his Doctoral research Dr. Beheshti decided to study the differences between machines and humans and he concentrated on the abilities that only humans possess.

"One of the abilities that only we possess is our visual system, and it is far more advanced than computer vision, and despite the advancements in computer processing power and all the mechanisms we have in image processing, our visual system is still far more advanced than any computer program. When you go into the science behind it you discover it is the way our neural network and brain is created - and in our memory system there is a specific tiny memory called trans-saccadic memory," said Dr Beheshti.

The Founder and CTO of CyberSiara, forensically explained how trans-saccadic memory was completely unique to humans - and that after studying the mechanism he applied the algorithm into cybersecurity.

"The human eye has got a small movement called saccade. These saccades are separated by fixations and during each fixation our visual system and neural network receives the visual information from the outside world. During each fixation, our visual system will perceive these analog signals through the photonic energy, which comes into the retina and it will translate it into the back of human eye and sends signals back the brain and trans-saccadic memory in order to process the



data.. That is the place where the brain will automatically superimposes all the frames that are captured during each fixation," said Dr Beheshti.

However, what makes his solution utterly unique and why it has been described a 'gamechanger' of a solution by cybersecurity peers is that it can't be replicated by computers.

"This mechanism does not exist in computers. For two reasons, computers only operate in numbers and can only process things mathematically, they can't see things. Our visual system can receive the analog signal and we see things, we don't calculate things. I basically converted and reversed engineered this mechanism into a mathematical algorithm that produces images that once you look at these images it will trigger your transsaccadic memory unconsciously.

These forms include login and account creation screens. where bots use stolen credentials for Account Takeover attacks (ATO). ATO increased n Π in 2020. and the trend continues in 2021.

However, if you play the same sequence of images for computers' they just see pure random noise, and this is the beauty behind the mechanism," said Dr Beheshti.

He also stressed that no OCR's, regardless of how advanced they may be, cannot decipher the information from these images despite any way they attempt to calculate it, which only serves to reinforce how advanced and unique the mechanism is that has been created by CyberSiara.

Incredibly, one of the most difficult challenges for Shah in terms of a marketing perspective is to get people to fully understand and appreciate the power of this SiaraShield security solution.

"When you look at the solution it looks extremely simple – and so we explain it to people sometimes they

don't believe the complexities behind it. We have continually faced this this problem when we explain it to people, they see the product and they say it is just an image, how can a bot not see this? But that is the beauty of the product. The product is so simple, you can use it, but a bot can't see it. However, some people are like bots and computers are so smart they will be able to figure this out, but the reality is they can't! It is a real challenge to get people to believe how powerful a security tool this is, but because it is so simple it is very counterintuitive to people," said Shah.

Believe the hype! CyberSiara is authentic, and so is the SiaraShield solution, and I have got a funny feeling we are going to be hearing a lot more from CyberSiara in the cybersecurity industry here in the Middle East over the next few years.

GX NOW

TIME TO 'TECH' BACK CONTROL

Ian Khan, technologist, inventor and filmmaker for Government Experience (GX Now), spoke to CNME Editor Mark Forker, about the corrosive role social media is playing in all aspects of our lives, and how governments really need to step in to regulate 'Big Tech' in order to take back some control.

am very fortunate in my position as the Editor of a technology and IT magazine to be afforded the opportunity to interview prominent figures positioned at the very forefront of our global technology ecosystem, and one of them is the charismatic, opinionated and always fascinating Ian Khan.

It is always an enlightening experience to speak to Khan, and the topic on the agenda for our latest conversation was that of Big Tech - and the seemingly imminent prospect of government regulation being imposed on social media platforms in the United States.

Many people believe social media has been the key factor

in the breakdown of public discourse in many countries - and cited the contentious topic of COVID-19 passports to highlight the polarisation the platforms can have.

"There is a lot of discussion now around COVID-19 vaccination passports and there are so many different types of

I think that social media has changed us as people. We have changed our relationship with other people as a direct result of social media." people commenting on it, with so many varied opinions, with some people in support of it, whilst others are vehemently opposed to the concept. Some countries are going to continue to pursue the idea, and if you look at the UK, the suggestion from Boris Johnson that you might need COVID-19 passports to go to the pub is utterly insane! This is the type of discussion that sparks so much debate, anger and hostility on these platforms, and has actually deflected away from the real issue of getting COVID-19 under control," said Khan.

Khan also highlighted the high density of social media usage in countries such as China, India and the United

States, describing the fact that Facebook has 2 billion users as 'mind-boggling'. However, he was unambiguous in his belief that social media has changed us, and not for the better – and was scathing in how social media platforms have manipulated and exploited their users.

"I think that social media has changed us as people. We have changed our relationship with other people as a direct result of social media. It has impacted our work, businesses and economies and everything has changed because of social media. Social media companies have responsibilities, and I think it is fair to say that many of them are not sticking to that 100%. I think they have abused our privacy and have used psychological techniques to get people to click on what they want them to. Social media has absolutely abused the system," said Khan.

Khan also revealed his sheer frustration at the way the figureheads of companies like Google, Twitter and Facebook have conducted themselves when testifying in congress, in which they have been seemingly incapable of taking accountability for the role their platforms have been played in the decay of our societies.

"Social media companies have done some bad, bad things and that is why they have all been testifying in congress of lan Khan Technologist, Inventor and Filmmaker for Government Experience

. GX Now)

late. I would encourage anyone with an interest in social media to watch their testimonies in congress, the deflection tactics that are deployed are just staggering, and they are so reluctant to take any sort of responsibility for the damage their platforms have caused. People no longer trust social media, but even though that trust has vanished, people still access the applications every day," said Khan.

The dynamic technologist and futurist illustrated how divisiveness of the US elections and the insurrection on Capitol Hill served as further evidence as to the power social media companies have on how people act.

"They have so much power. I mean the President of the United States and leader of the free world had his account suspended by Twitter, and he was not able to do anything about it, so I think that incident alone perfectly demonstrated the power these companies have. Google, Microsoft, Facebook have all faced anti-trust litigation over the years, and Facebook has been fined billions by the EU. They have been unethical in both utilising and leveraging people's emotions and data. They have harvested and monetised their data to get rich and they are controlling a lot more than just people's social media posts," said Khan.

According to Khan, governments are in the business of responsibility. They are responsible for their countries' economy, job creation, adequate housing conditions and the general health and wellbeing of their population, and he firmly believes that they need impose themselves via regulations as part of an effort to wrestle back control and tip the scales to be more balanced.

"If people are really impacted by something that the government is unable to control then governments are in many ways losing control. I think there has been a concerted effort from a number of what I would describe as good governments that are trying to fight against what social media can breed, like violence and hate speech," said Khan.



Khan is a passionate advocate for government intervention in the form of regulation in relation to how social media companies currently operate, and he believes the time has now come for the industry to be regulated, however, he did acknowledge that regulation gets a bad rap in some quarters.

"I am cognizant of the fact that regulation sometimes has a bad name associated with it, but I think we should be thinking more about responsible regulation, or open regulation. Can you imagine if the electricity and transportation industries were not regulated? Regulation essentially means that you've some rules that you need to follow in order to keep things flowing with efficiency. Regulation can be a good thing, it is a good thing, but control is undoubtedly a bad thing. When you use regulation as an oppressor then that is quite clearly a bad thing. In certain countries we have witnessed over regulation and a suppression of people's freedoms and basic rights and that is a huge problem. But social media companies have too much power are they causing corrosive damage to our societies, and quite simply it needs to be scaled back," said Khan.



Khan also pointed out the seismic shift in terms of how easily and willingly we have surrendered our data over the last number of decades.

"I think our relationship with our information and data has changed dramatically over time. 20 years ago, we held every piece of our data very closely to

If people are really impacted by something that the government is unable to control then governments are in many ways losing control." us, our lives were quite secretive - and we were very protective and private. Fast forward to now, and there are people I do not even know well, and they know what kind of dog I have, what car I drive and what I had for dinner a few days ago. I have opened-up thousands of data points to the world, and I have done it voluntarily," said Khan.

Khan does still protect some of his private information, like his bank account and social insurance numbers, but he believes that in the future we are going to start to open-up even more.

"I think in the future there will be no need to protect this information. For example, there will be no need to protect your

SSN (Social Security Number), because it will not matter who knows it because it will be secure in some shape or form. Our relationship with social media and government regulation is also changing, on one hand there are people who want more distributed things like bitcoin and blockchain and have expressed a desire for their own currency, but then on the other hand there are people who do not want this, but one thing that is not up for debate, and that is that the time is nigh for social media companies to be brought to task," declared Khan.

Khan concluded a great interview by outlining the steps he believes need to be taken to make social media platforms much safer and more inclusive for all users.

"I think that collaboration is key in terms of forging a new path forward and we need to determine what is fair and what is not fair. There needs to be a unified dialogue between the government and the private sector around the regulation and standardisation of social media entities. I think there is growing momentum to standardise the access on social media to make it safer for all our communities and make it more inclusive, and I think the private and public sectors need to come together to do it. Governments can not be the only ones dictating what should happen, otherwise it becomes a dictatorships', we need collaboration to strike the right balance that gets all stakeholders back on track," concluded Khan. cnme

LYVE

TAKING YOU ON THE LAST MILE

CNME Editor Mark Forker spoke to **Zeid Abu Ennab**, Senior Director of nGage SaaS at Lyve, to find out how the innovative software company has transformed the logistics industry with its last-mile delivery ecosystem, the reasoning behind its decision to rebrand – and what differentiates Lyve from its market competitors.



e all know that in this digital economy, a key component in the success of any company that relies on an application to deliver its services is the 'experiences' that it can deliver. How are you leveraging your nGage by Lyve solution to empower companies to deliver their products more effectively and efficiently?

We have created the nGage by Lyve to alleviate the complexity and resource-intensity of the last-mile phase. The software was designed to give clients control over all delivery-related matters by centralising them and streamlining the flow – so clients can provide a speedier and more accurate service while maximising resources through multiple features.

Businesses thus end up cutting costs on operations and increasing customer satisfaction. A few of the software's features include:

Automated dispatching of orders:

The software assigns orders automatically to drivers through smart algorithms that consider drivers' proximity from pick up locations, capacity, workload, ETA, vehicle type, payment type, employment type, driver rating, SLAs, distribution models and other criteria.

Dynamic route planning and optimisation:

Provides drivers with the best optimised route, calculated based on SLAs, drivers' capacity, ETA, traffic conditions, and other criteria. It allows clients to access the expected time of arrival of each driver at each location. The software's algorithms cater for different delivery models including multiple pickups and multiple drop-offs.

Drivers pooling and order clubbing:

Optimises fleet utilisation by sharing a pool of drivers amongst multiple stores within the same area and assigns multiple orders from one or more brands to the same driver. Both the pooling and clubbing features are powered by the software's route optimisation algorithms to ensure on-time deliveries and compliances to SLAs.

Real-time tracking:

Enables clients' operations team to know where drivers are with the help of a map interface. Clients can track order journey with time stamps from the moment an order was created



We have created the nGage by Lyve to alleviate the complexity and resource-intensity of the lastmile phase."

until it was delivered to the customers' doorstep.

Customer engagement:

Minimises follow-up calls to the client's call centre by keeping customers updated with their delivery status. The system can be customised to update customers' at any stage of the order journey, using automated SMS notifications. Customers are provided with tracking links to a real-time map with the rider's location. Customers can also update their delivery locations, communicate directly with drivers, rate their delivery quality and provide feedback.

Smart analytics & SLA monitoring:

Analyses and visualises the performance of clients' orders, stores, drivers, and delivery areas right in your dashboard. It also unlocks more insights by exporting analytics and raw task data to CSV to be used in any reporting platform. The software's advanced heat map enables clients to visualise the density of orders across the locations to optimise the fleet capacity. SLAs Monitoring dashboard facilitates the monitoring of SLAs and by clients and receiving real-time alerts for any SLA failure for any team or store.

Electronic proof of pickup and delivery:

Clients can ensure deliveries were successfully completed by requesting customers' electronic signatures, item photos, or notes.

Lyve has positioned itself as a key player in powering the digital economy with its logistics and technology solutions and have enjoyed phenomenal success since its inception in 2015. However, what is that differentiates you from your market rivals?

What differentiates us in the market is the last-mile delivery ecosystem we have created for our clients. We leverage the rapid evolution of technology to fully digitise and streamline every aspect of this field's landscape. Besides providing a fleet of drivers, our series of digital products complete each other, while fulfilling every requirement an online business may need at any point in the last-mile stage - making our brand a one-stop shop for clients.

Besides nGage by Lyve, we offer our clients a cloudbased management platform for a remote workforce called WaYnaQ. It provides total visibility and granular control from anywhere and at any time while enabling clients to manage salespeople, delivery drivers or repair teams. It also includes 21

features such as intelligent deployment, geofencing, and advanced analytics.

DigiPO is another technology product our clients use. It is a secure digital P.O. Box with the ability to manage mail from any smartphone or computer, with a mobile phone number becoming a P.O. Box number. Once a customer downloads a DigiPO-enabled app, they can create a digital P.O. Box in a matter of minutes.

We have merged outdoor advertising with technology, creating Brandware – a digital update of the look and feel of fleet and delivery specialists. This technology includes uniforms with digital panels, delivery boxes, and backpacks – making the customer journey more consistent and opening up new opportunities like seasonal advertising and changing campaigns and visuals with the click of a button.

What motivated your thinking behind the decision to rebrand the company in August 2020?

The decision to rebrand was a key step towards our business growth strategy. Over the past few years, our brand has developed and matured through innovative products and a robust technology, which we felt ready to showcase in an upto-date, sophisticated manner that reflects our capabilities.

Our rebranding exercise consisted of a new company name, logo and website which expresses the dynamic



expansion of the company and its vast growth and development, with digital efficiency as its core value. Our new name and identity represent exactly our core values and what we believe in and seeking to always accomplish.

The name Lyve – a play on the word "live" and the idea of being 'live' represents our continuous connectivity on all levels: always being technologically up to date and always being able to monitor all business activities through our Lyve Logistics and Lyve technologies, and the ability to always be 'hands on' in all phases of the last mile.

What are your primary goals and objectives for the remainder of 2021?

Our primary goals and objectives for the remainder of 2021 is to expand our e-commerce portfolio while opening the door to new entrepreneurs. The pandemic has changed consumer behavior and in 2021 the UAE alone has witnessed an increased online demand of 54.8% in the category of food and personal care items, 45.6% in furniture and appliances, 42.2% in fashion and beauty products – increasing the demand for lastmile logistics and solutions.

We are leveraging our technology products to accelerate the growth of e-commerce in the region by supporting businesses of all sizes looking to venture in digital entrepreneurship – without having to worry about a lack of expertise in the field of operations. With user-friendly and easy to use software, the load of fleet management is taken off the shoulders of young entrepreneurs.

SIGMA TECHNOLOGIES

CONTINGENCY **AND CONTINUITY**

CNME Editor Mark Forker, secured an exclusive interview with Vivek Gupta, Director Technical at Sigma Technologies, to find out how the company helped its customers to evolve their IT infrastructure to meet changing market dynamics - and some of the key accomplishments it has made during its partnership with Cisco.

he on-going pandemic has pushed organisations across the region to evolve their IT infrastructure. Can you explain how Sigma as a key Cisco Partner is working to support the end users in the region? The dramatic spread of COVID-19 has disrupted lives, livelihoods, communities and businesses worldwide. The social and economic challenges posed by COVID-19 have highlighted the importance of understanding the strengths and weakness of the business in order to maintain continuity and resiliency.

At Sigma technologies, we have been assisting our customers by designing and deploying networking solutions that help secure our customer's remote workforce and provide a trusted workplace experience using the Cisco intent-based networking portfolio.

We have been offering Cisco Cloud and Compute solutions to our customers to help bring people and applications closer together securely and cost-effectively. We have been helping our customers adopt Cisco solutions to build a secure network for a trusted

workplace as well as for workfrom-home solutions.

What are some of the key milestones including trainings & certifications that Sigma has achieved as a Cisco Partner over the years?

We at Sigma Technologies have made sure all our technical and sales resources are well trained in terms of the latest Cisco technologies by attending Cisco technical training sessions and achieving the relevant certifications.

Maintaining a deep technical understanding of Cisco architectures as well as developing sales competency and confidence is a key priority for us. This has enabled us to have richer interactions with our customers and helped us lead them into the next era of digital transformation.

Some of our key certifications include Cisco Advanced Specialisation in Security, Enterprise Networking and Collaboration as well as SaaS certification.

As a result of the disruptions to businesses, especially at the start of the pandemic, we have seen that more and more



Technical at Sigma Technologies

organisations have become aware of the importance of having business resiliency. What are the Cisco solutions that an end customer should adopt in order to maintain business continuity and resilience? At Sigma Technologies we have

been following a proactive approach in helping our customers preserve business continuity and build enterprise resiliency.

We have been communicating with relevant business stakeholders to put a solution in place that can help to reshape their business and secure the ongoing engagement with customers, employees, suppliers and regulatory authorities.

We understand that once the COVID-19 outbreak is controlled, companies will want to review and renew business continuity plans. If there are deficiencies, companies will want to identify root causes, whether it's timeliness of action, lack of infrastructure, labor shortages, or external environment issues.

Companies will then want to consider putting new internal guidelines in place based on lessons learnt, as well as further solidify their existing contingency plans.

Today's customers want to connect with businesses on platforms that are familiar, fast, and reliable."

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INFOBIP

CUSTOMER EXPERIENCES IN THE DIGITAL ECONOMY

CNME Editor Mark Forker secured an exclusive interview with **Yara Milbes**, Head of Marketing – MENA, Turkey & Pakistan at Infobip, to find out how the company is reinventing and reshaping digital customer experiences - and what differentiates Infobip from its market rivals.

n this new digital economy, we know that delivering 'experiences' are critical for businesses to retain and grow their customer base. Our dependency on technology to conduct everyday tasks has only served to increase our expectations, and we have and we have zero tolerance for poor experiences with applications and services. Can you outline to our readers how Infobip empowers its customers to deliver exceptional customer service through their solutions? Online interactions between businesses and customers have multiplied in the past couple of years. As a result, customer expectations for meaningful, contextual, and convenient

experiences have reached new heights. Simply put, customers have grown accustomed to getting what they want when they want it while increasingly drawn to businesses that treat them as individuals throughout their journey.

Today's customers want to connect with businesses on platforms that are familiar, fast, and reliable. Our solutions ensure customers get the best value from companies at the right time through the proper channels.

Infobip offers a wide variety of CPaaS channels that companies can reach their customers through anytime, anywhere, and most importantly, all in one platform.

We help businesses build connected and personalised

customer experiences across all stages of the customer journey with simple, contextualised interactions and, most importantly, over the customers' preferred channels. This personalised experience is also ensured by continuing conversations seamlessly from one channel to another –without losing history or context.

In my opinion, exceptional customer service comes from offering secure, uninterrupted communication over the customer's preferred channel. Therefore, by being active on channels where customers spend their time, businesses improve brand visibility and ultimately build long-term customer relationships. We also know that an effective way to retain customers is to 'personalise' the experience. Can you tell us what solutions your customers leveraged to help them build better one-onone relationships – and do it easily at scale?

While brands are constantly looking for ways to stand out in a digitally charged world, they must recognise that a digital customer experience isn't the only thing consumers want.

Today, there is great value in a seamless human approach that offers a personal touch more than ever. I believe establishing an emotional bond and delivering a great user experience are key pillars in building a digital relationship with customers.

An automated customer support solution like Infobip's Answers allows businesses to create an Ai chatbot that can recognise customers' intent, instantly provide information on any channel, and, best of all, never takes a day off.

The chatbot can resolve common queries using multimedia and assist customers as a true virtual assistant that's capable of having real conversations. Once it's integrated with our cloud contact centre solution, Conversations, the chatbot can seamlessly transfer complex queries to the right agent based on the customer's intent without losing conversation history or context.



It doesn't get more personal than being always available, a "good listener," and proactively knowing when to hand over to a live agent for further support. As cloud-based solutions,

both Answer & Conversations allow businesses to engage with unlimited numbers of customers. They can be scaled up or down according to demand and business needs. Many businesses have embraced AI technologies to increase efficiency within their customer service and contact centres offering - and have turned to automation to achieve this. However, many endusers still get frustrated speaking to conversational bots and have had negative experiences with them, and long to speak to an experienced customer service agent. How important is it for businesses to retain that 'human touch' when it comes to customer service?

Today, customers are reshaping the way businesses communicate, demanding more personalised and digital human interactions. I believe that Businesses must pay careful attention to their customers' needs and expectations, such as knowing who your customers are, how they've interacted with you previously, and their interests.

Once you have that data, you can personalise your customer engagement by communicating over multiple channels while using the right messages at the right time to keep customers engaged at different touchpoints.

The frustration builds up here when a customer feels stuck talking to a machine that clearly cannot resolve the issue without the option to enter free text outside the existing conversation flow or get passed on to a live agent for further support.

With Infobip, you interact with an AI-based bot that is contextually aware and understands natural language, with an option to integrate your chatbot with a digital contact centre and manage customer support to unify communication from all angles through a single interface.

This integration enables agents to access the entire conversation history and purchase history across all channels and seamlessly take over more complex queries that chatbots aren't programmed to handle.

Infobip has been an incredible success since its inception in 2006 - and has established itself as the go to cloud communications platform. In your opinion, what is it that ultimately differentiates you from other market rivals?

Our approach mainly entails integrating global standards with local presence and on-ground support. We see customers as partners and approach each customer by first understanding the uniqueness of their business, their existing infrastructure, and what goals they need to achieve.

Our experts stand in the customer's shoes every time, no matter how big or small the project is, and build a solution supporting their business through a single platform.

Customers today are not interested in seeing or experiencing how businesses operate. They want to be seen as individuals and ensure their expectations are met. They look for simplicity even in every interaction they make or experience with brands, and this is what Infobip is all about: Creating seamless interactions between businesses and people.

COVID-19 has fundamentally reshaped the way we live, work and play. It



Our approach mainly entails integrating global standards with local presence and onground support."

> has transformed major industries such as healthcare and education, but what impact has the global pandemic played in terms of how we define what customer experiences should look like? The disruption caused by COVID-19 has changed the world and caused human interaction to become much more digital; Working from home, dealing with clients, and managing services are all being done online.

> Although the pandemic has brought time to a halt, it has definitely fast-forwarded the world's digitalisation. People behave in new ways, buy-in new ways, and think in new ways with changing attitudes. With this change, businesses should accelerate their shift to digitalfirst or digital-only consumer journey because customer behavior will not revert.

> This is the right time for businesses to meet customers on their preferred channels and personalise engagement to make customers feel like you understand them and ultimately keep them coming back for more.

27

ALMOAYYED COMPUTERS

A'GOLDEN' PARTNERSHIP

S.M. Hussaini, CEO at AlMoayyed Computers Middle East, Bahrain, told CNME Editor Mark Forker, about the importance of their relationship as a gold partner of Cisco – and how the IT leader helped its customers respond to new market demands amidst the global health crisis.

> T needs of the end customers have been constantly evolving since the onset of the pandemic. However, you explain how ACME as a key Cisco Partner is working to support end users in Bahrain, and help them to address their evolving needs? The pandemic gave us an excellent opportunity to reach out to our customers and reassure them of our enhanced commitments while they needed us the most during the challenging times.

We sensed the urgency well in advance and started as early as January 2020, to support customers on their primary requirements of solutions supporting work from home, secure mobile work and maximising life of existing equipment through OPEX leaning support contracts.

28

S.M. Hussaini CEO at AlMoayyed Computers Middle East, Bahrain

MAY 2021

Today, it is about intelligent budgeted investments which keep a customer's data centres and networks resilient and secure as it comes under the strain of an increasing dependency from remote work force.

ACME has been at the forefront of its customer's needs by emphasising the value of Cisco WebEx and Secure work through the Any connect platform. In addition to this we have provided critical business services tied to the operational environments of several customers through Cisco's Smartnet service platform combined with our own managed services.

We ensured availability of resources when they were needed the most and in the safest way possible.

Today, our consultants engage with our customers to deploy and deliver Cisco solutions that are centred around optimised business use cases with proven value such as Software defined networking, OPEX friendly collaboration subscriptions and secure products in email, end point and web security.

We have also embraced Cisco's cloud managed

ACME has consistently evolved with Cisco in terms of technology and services investments as we have grown from being a purely networking company to an IT Software and Services company leader." networking products from Meraki that allows customers to manage their distributed environments from a single pane thereby reducing the need to travel and attend office in a lockdown environment.

Cisco has been a leader in introducing technological solutions that are able to resolve not only the existing, but also the future needs of its customers. What are the key Cisco solutions that an end customer must consider while developing a network that is scalable and resilient?

Dependency on technology has made the end customers' requirements extra complex. Today the customers need to factor in digitisation which translates to automation, assurance and analytics of every part of the ICT stack whether it's on-premises or in the cloud.

However, customers need simplicity while dealing with complex data and its multiple touch points. Furthermore, while implementing a network, customers face challenges of workforce efficiency, availability of the network and Intelligence derived through its use.

Considering this, in order to build scalable and resilient Networks, we advise our customers to embrace Cisco's DNA architecture, Application Dynamics platform and ACI.

In addition to this, hybrid and multi-cloud environment, that are fast becoming the cloud normal, customers should look at Cloud Intersight and Container management platforms. Cisco's integrated suite of products and services allow customers to embrace policy automation, security and assurance while giving them the flexibility of anywhere and anyplace computing for their remote workforce.

What are some of the key milestones that ACME has achieved as a Cisco Partner over the years?

If I were to say one thing, it is the massive customer respect that we have earned while delivering reliable Cisco solutions and by ably supporting the customers through the entire life cycle of the implemented products.

Our ability to integrate solutions well with Cisco remaining at the heart of the integrated infrastructure has helped us build a strong identity as a System Integrator of repute at a regional level.

ACME has consistently evolved with Cisco in terms of technology and services investments as we have grown from being a purely networking company to an IT Software and Services company leader.

Being a Gold partner for over 15 years, we have established our strong footprint in multiple market verticals, particularly in public sector and finance sector.

For over a decade, we have remained the Cisco partner servicing the government of Bahrain under the Cisco Framework Agreement. Banking is a leading sector in Bahrain and with Cisco we stay dominant in the sector while delivering critical services tailored to maintain uptimes.

HUAWEI MIDDLE EAST

ENHANCING NETWORK CONSTRUCTION WITH GREATER BANDWIDTH, DATA SPEED, AND SECURITY

Alaa Bawab, Vice President for Enterprise Networking Business, Huawei Middle East, outlines the need for greater bandwidth and data speed in order to facilitate and meet the increased demand for OTT content.

> he world is witnessing a surge in the consumption of over-the-top (OTT) content-video and other media content delivered by the internet. This consumption is driven by the increased affordability and availability of the internet worldwide, as well as consumer-friendly options such as personalisation and on-demand viewing. Improving network connectivity has also enabled transferring large-sized videos and images to become more common.

All of this is only possible with fast data transfer speeds.

When thousands of people are in one place, such as a concert or a sporting event, and they are recording, taking photos, or videos, the network infrastructure will be under substantial pressure.

Installing networks at large venues with public access to the internet is a complex process as operating and maintaining network systems is difficult and places a certain amount of pressure on the venue's technical team. Venues need to ensure their Wi-Fi networks are able to provide full wireless coverage that is secure and allows for continuous network use. In a consumer environment, where users demand a seamless digital experience and the ability to share high-quality content in real-time, network providers must ensure that thousands of people can access a network simultaneously and enjoy a similar user experience.

The pandemic has also played a significant role in accelerating the adoption of digital channels. Organisations have continued to prioritise digital transformation to enhance connectivity and accessibility in public areas.

One such example in the region is the Dubai International Financial Centre (DIFC). It is one of the world's leading financial centres and home to the largest, most developed Financial Technology (FinTech) ecosystem in the Middle East, Africa, and South Asia (MEASA) region. DIFC realised the importance of digitalisation many years ago, before COVID-19. A core component of the transformation was launching next-generation Wi-Fi 6 in partnership with Huawei, offering the fastest Wireless Local Area Network (WLAN) technology to date.

Wi-Fi 6 delivers large bandwidth capacity, high concurrency, and low latency. Its deployment allows a new and improved user experience in dense deployment scenarios compared to that of previous Wi-Fi generations. A Wi-Fi 6 network offers four times the system capacity of Wi-Fi 5, four times the concurrent access, and 60% lower transmission latency. Wi-Fi 6 enables ultrahigh bandwidth 4K and Ultra-High Definition (UHD) video conferencing, as well as fast, seamless roaming, and ultralow 10 ms latency for quick Virtual Reality (VR) response.

The pandemic has indeed demonstrated that businesses can no longer be confined only to offices — Wi-Fi 6 empowers users with alwayson, anywhere-accessible, reliable Wi-Fi connectivity. It is essential that businesses remain connected to their customers and partners at all times, anywhere and everywhere.

Accessibility, transport, and infrastructure have proven to be a great strength of DIFC. With access to Wi-Fi 6, both residents and visitors are empowered with the ability to access government websites and make online transactions through their Wi-Fi-enabled devices in public areas within DIFC.

Mobility at this level drives productivity and efficiency, creating more convenience for users by allowing them to access essential services at any time for free, and in turn, making businesses truly mobile.

As Wi-Fi networks in public venues are particularly susceptible to attacks, it is imperative that organisations also have adequate network security checks in place to ensure there would be no data breaches. Wi-Fi 6 enhances operational efficiency, improves network security, and reduces operating costs.

In addition to the key network characteristics

The pandemic has also played a significant role in accelerating the adoption of digital channels."

essential to deliver the intelligent connectivity platform, such as robust connectivity, user experience, and O&M tools based on data analytics and AI capabilities to resolve issues in a timely manner, centralised Cloud-based management plays a key role.

It is a combination of processes entailing the use of software, applications, and services in the cloud. With remote cloud management, it is easier to achieve optimal operations and maintenance

> Alaa Bawab Vice President for Enterprise Networking Business, Huawei Middle East

as project delivery time at venues can be significantly reduced. Additionally, the time required for fault diagnosis can be reduced from four hours to just a few minutes. This speed of service is facilitated by Huawei's cloud-based management platform CloudCampus, and CampusInsight.

As DIFC looks to triple in size by 2024, the launch of Huawei's AirEngine Wi-Fi 6 will help the centre meet its growing connectivity requirements, ensuring its community has access to the latest technology and network, with the capacity to support innovative smart services. DIFC's commitment to digital adoption will allow it to expand and diversify, supporting

the latest phase of an ambitious expansion project that will back Dubai's mission to become a major economic force in the Middle East. 31

MICRO FOCUS

DRAMA-FREE IT

Toufic Derbass, Managing Director, Micro Focus, Middle East & Africa, discusses how the latest IT platform from Micro Focus offers unified interface and expanded integration capabilities.



icro Focus, a worldwide leader in software solutions, continues to deliver on its promise of "digital transformation without the drama" with the launch of its new IT platform, OPTIC (the Operations Platform for Transformation, Intelligence, and Cloud). OPTIC is a unified platform and automation engine that requires no custom coding and offers embedded intelligence for broad data analysis, normalisation, and storage.

The platform's new features reflect the changing IT demands of businesses and their employees. OPTIC streamlines disparate needs and services, with a unified approach to identity management, single-sign on, and container management. The next-generation IT platform has expanded integration capabilities through an API gateway and harnesses a native, unlimited-use intelligence at its core that allows teams to optimise their cloud usage.

At Micro Focus, our goal is to take the drama out of digital transformation, so organisations can get the most from their investments and focus on driving business forward. OPTIC is designed to work with your existing infrastructure and services so you can build on your investments, rather than ripping and replacing.

Control your transformation journey

OPTIC allows teams to take control of their digital transformation. The platform provides efficient self-service for employees with features like automated fulfillment which cuts down on processing time and does away with long waits for simple requests.

With OPTIC, teams can discover, manage, monitor, and govern cloud services while maintaining an on-premise approach. Fully integrated with the cloud, OPTIC can unify performance and availability management, while at the same time discovering new possibilities with multi-cloud deployment options.

"Having an IT platform is crucial in today's environment, but not all platforms are the same. OPTIC reduces the need to build and maintain integrations, provides deep insights into data and processes, and leverages a common UI and best practices so users can work on a familiar,

At Micro Focus, our goal is to take the drama out of digital transformation, so organisations can get the most from their investments and focus on driving business forward." optimised platform," says Derbass. "Simply put, OPTIC takes the drama out of the IT platform, so businesses can spend more time leveraging the tool, and less time tweaking and training."

Build more, spend less

Keeping expenditures low is essential in today's uncertain business environment. OPTIC is built for integration and supports existing IT infrastructure and services, both on-premise and in the cloud. Businesses that choose OPTIC need not replace valuable workhorse systems like business intelligence and reporting tools, and can instead leverage previously adopted investments while improving operational efficiency.

OPTIC deployment options include cloud, containers, as-a-service, or on-premise, as well as the ability to switch as business needs evolve. Additionally, OPTIC components are licensed and installed with Micro Focus ITOM products, providing incremental value to customers as they expand their use.

OPTIC is one more way Micro Focus is taking the drama out of IT transformation and getting the most out of existing investments. With unified process automation, discovery and topology mapping, and embedded intelligence all in a single user interface offered with flexible deployment options Micro Focus' OPTIC is a truly drama-free, nextgeneration IT platform.. CITTE

AVEVA

CONNECTED WORKERS

As industrial operations become increasingly autonomous, 'connected workers' are vital for digital business success, explains **Kim Custeau**, Vice President APM Business at AVEVA.

Kim Custeau Vice President APM Business at AVFVA

Begin and the supply and the supply and the supply and demand side, energy companies are more focused than ever on leveraging cloud, Internet of Things (IoT), Artificial Intelligence (AI) and analytics to drive real-time flexibility, efficiency, availability and sustainability.

But it's not only technology that will herald a new frontier in industrial productivity. Just as important is the growing level of human interaction with connected AI and datadriven software.

Four new key business drivers

Post-pandemic, four key areas have emerged as business imperatives for the new normal.

As capital investments shrink, companies need to re-evaluate projects for viability, ROI and to reduce total installed cost. Consequently, operators must revisit traditional work processes and information exchange to enable an entirely new modus operandi of engineering.

With remote teams requiring better context and deeper data access to supervise operations, collaborate and make decisions, there is a heightened need for better visualisation and contextual analysis of operating information across the enterprise. As operations start to become increasingly autonomous, ensuring the reliability and safe operation of critical assets with minimal supervision becomes vital. Personnel on the shop floor and in the field will increasingly require worktask enablers and aids, as deep operating expertise becomes scarce.

And finally, in an environment of heightened unpredictability, companies will need to drive high levels of agility and responsiveness across value chains to minimise value leaks, optimise production and maximise profit opportunities.

34

The rise of the connected worker

The 'connected worker' represents digital transformation through the eyes of the employee. To attain the true value potential of any digital transformation program, companies must give genuine focus to the needs of human staff behind the 'working asset'.

Over the next decade, AI could contribute up to \$15.7 trillion to the global economy, but it is connected workers that will be the real agents of change in this scenario. According to Harvard Business Review, 80 percent of global workers have no desk and much of their work is mobile. These firstline workforces are the new focus of digital transformation.

Empowering these connected workers is imperative if companies are to help drive operational improvements in productivity, safety and collaboration as businesses become more automated. AI will also have a critical role to play in monitoring and improving remote working, team working, decision-making, wellbeing and job satisfaction for workers.

By carefully mapping personnel needs, companies can cultivate an engaged workforce that works in harmony with the firm's digital infrastructure and goals.

Digital Twins for dynamic conditions

As companies begin to turn to AI across every operational task and process, organisations will require additional capabilities for inference, prediction, guidance and adaptation to dynamic conditions.

Today, these capabilities are combining to create a

As operations start to become increasingly autonomous, ensuring the reliability and safe operation of critical assets with minimal supervision becomes vital."

'Digital Twin' for the company. The technology maps the comprehensive physical and behavioral attributes of all assets to simulate, evaluate, predict and prescribe.

Advanced visualisation

Amid a landscape of increasingly autonomous operations, the connected worker will interact with the Digital Twin of an asset, using advanced visualisation tools and work-task enablers to guide activities, ensuring efficiency and consistency.

AVEVA's Digital Twin solution provides data discovery and navigation through an intuitive web-based user interface with built in 1D, 2D and 3D visualisation.

The technology, which leverages Microsoft cloud services and Microsoft Azure's infrastructure, data and AI services, provides in-depth asset information that greatly enhances decision-making. It allows anyone across the business to view data about the asset in the context of the physical asset itself and its connectivity in the plant.

The Digital Twin must interact effectively with workers, especially field workers. AVEVA customers consistently show significant improvements in training acceleration, skills development, and operations safety management.

In one exciting example, AVEVA is working with Thai petrochemicals giant SCG to unify its data into a holistic Digital Reliability Platform, using workforce enhancement tools to improve efficiency throughout its complex petrochemical value chain.

Together, we have created a set of multi-dimensional of digital transformation capabilities that can bring benefits to the whole sector.

Unprecedented data, connected assets

Industrial IOT has created the opportunity to access unprecedented amounts of data from connected assets. With improvements in connectivity and data security, historical barriers are being lowered and the advantages of cloud deployments are being realised.

In a rapidly digitalising world, companies will need to drive high levels of agility and responsiveness across value chains to minimise value leaks, optimise production and maximise profit opportunities. But it is the visual and human aspects of AI that will drive the real industrial software revolution.

With Microsoft's end to end solutions in the cloud, and AVEVA's deep industry expertise, the Digital Twin and connected workers will accelerate time-tovalue, and allow the significant benefits of Cloud and AI to become a reality.

IBM

IBM ENABLE INSTANT PAYMENTS IN KSA

CNME Editor Mark Forker spoke to Elhadii Cisse, Executive Partner and MEA Head of Core Banking & Payments, IBM Global Business Services, about the shift towards a cashless society, the role it is playing in the first instant payments system in the KSA – and how the company has sustained its success over the years.



Elhadji Cisse Executive Partner and MEA Head of Core Banking & Payments, IBM Global Business Services

here has been a shift towards a cashless society over the last number of years, but similar to digital transformation initiatives, this movement has been accelerated by the onset of the COVID-19 pandemic. As an expert in this area, why has there been such a surge to have non-cash transactions in our day-to-day lives? How we pay for goods and

services is often a matter of habit, conditioning and familiarity. As a result, material change to payment behaviors often involves a long journey toward incremental improvements.

However, COVID-19 has somehow tremendously accelerated this digital payment improvement by creating an unprecedented global appetite for changes to how a payment is executed.

Despite assurance from

global health organisations that banknotes pose low risk of spreading the virus, many countries have restricted cash as a measure of caution. Therefore, this has dramatically impacted consumers behavior towards cash. Another factor that caused this surge to non-cash transactions is the implementation of lockdowns. As lockdowns went into effect all around the world, customers turned to digital commerce sites, which has resulted in a marked increase in the e-commerce penetration rate.

Taking Saudi Arabia as an example, we are witnessing growth in online shopping and believe that improvements in the online payments landscape are bound to drive Saudi's cashless economy transformation forward.

Personally, I am in support of a cashless society, and conduct almost all my transactions by card, or e-wallet. However, I do understand why there has been strong and vocal criticism and condemnation of a cashless society from some quarters, especially when millions remain unbanked. The labour workforce in the UAE is almost exclusively unbanked, so as a direct consequence of propelling the move towards a cashless
society, are we not also creating a bigger chasm between those at the bottom and those at top, thereby increasing poverty in many cases?

Cash or non-cash must not be seen as binary choices. In reality, across the world cashin-circulation is increasing in parallel with digital payments. For emerging economies, it may well be that cash and digital payments play complementary and not alternative roles.

This does not mean that such countries should renounce plans to become cashless economies, but that these plans would need to be backed by financial inclusion initiatives that promote equitable access to digital financial services, connectivity, and infrastructure.

It is also important to note that some countries such as the UAE, KSA, and Bahrain have already adopted an Open Banking strategy for their ecosystem. This would, by default, allow fintechs to reach out to a much broader target than the traditional banks. Needless to say, this drive to innovation will help bridge any gaps.

Can you tell our readers about the new partnership agreement you will be announcing with Saudi Payments, which will see the installation of Saudi's first instant payments system – and what impact you envisage this will have on the banking sector in the Kingdom?

Saudi Payments under the supervision of the Saudi Central Bank (SAMA) has a mandate to continue to develop a secure, interoperable national payment infrastructure, serving banks and fintechs equally, and providing the required standardisation to ensure all providers have a level playing field.

As part of this mandate and a key part of Saudi Vision 2030, Saudi Payments sought to deliver a national instant payment solution. They chose IBM as the System Integrator and Mastercard as the provider of the core payment engine.

This program will allow the Kingdom to enhance low value – high volume electronic payments; reduce reliance on cash and establish a digital products and services footprint; foster economic development by increasing financial inclusion to Saudi Banks, lay foundations for new payments business initiatives. It will also improve the overall financial ecosystem and enhance banking reconciliation by lowering lquidity equirements, and risk management.

Transfor-

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to our his-

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presence

today."

Can you tell us a bit more about the technology IBM is bringing to the table to ensure that this will be the fastest end-to-end rollout globally of a digital payments system in terms of size and scalability?

Saudi Payments selected IBM Global Business Services (GBS), the services and consultancy arm of IBM, to lead the project as the System Integrator (SI) partner and a leading end-to-end digital payments solutions provider.

That proven track record allowed IBM GBS to design and architect the solution through its complex system integration methodology. IBM GBS built a technical platform and integrated Mastercard's instant payments platform into Saudi Payments' existing infrastructure while connecting it to the IT systems of locally operating banks.

The sheer scale of the project makes it a first-of-its-kind as developing a digital, instant payments system requires not only coordination but connection with a multi-faceted economic system – from the central bank to the banks and many touchpoints in between – and it's a testament to the collaboration between Mastercard, IBM and SAMA.

IBM is one of the world's greatest technology companies, and has been since its inception over 100 years ago, but what is that makes the company so special, and how has it been able to sustain all the success it has enjoyed over such a long period of time in a very competitive industry?

Transformation has been core to our history and is a reality to our presence today. However, one purpose that remains one and at the heart of everything that we do at IBM is to be essential to our customers and their journeys, bringing them the technology and intel that they require for their operations and essential to the community.

In terms of our transformation, IBM has gone through many transformations in over 100 years. Today, we are in a multi-year transformation, accelerated by strong Red Hat adoption which has positioned IBM for success in the hybrid cloud and AI market.

With a broad portfolio that includes Analytics, AI, Blockchain, Security, and Cloud, IBM has been helping financial institutions worldwide continually meet growing demands to improve their customer experience and innovate to respond to fierce competition.



Security-Driven Networking, everywhere you need it.

Protect the possibilities with Secure SD-WAN.





FUELING SMART CITIES OF THE FUTURE

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SOFTWARE AG

SOFTWARE AG LEVERAGING TECHNOLOGICAL EXPERTISE TO POWER SMART CITIES

CNME Editor Mark Forker spoke to **Volha Smirnova** – Internet of Things and Analytics, EMEA Centre of Excellence, Software AG, UAE, to find out how the company defines what the fundamental characteristics of a smart city are, the solutions they are developing to fuel smart cities of the future - and the importance of resilience in the new digital economy.

hat is your definition of a smart city, some industry experts define a smart city based on its transportation service, or how connected it is in terms of public Wi-Fi, however, from a Software AG perspective what constitutes a 'smart city'?

At Software when we say smart city, we talk about the maximum transferability of the physical realm into the digital one. The so-called digital twins of smart spaces be those as small as factories/ buildings or as large as entire districts or cities. With regards to that we employ the layered approach. Normally, a smart city comprises of at least five different layers, which are:

Buildings: Physical buildings

are rapidly becoming digital, with the concept of smart buildings gaining popularity. The smart buildings market will grow at a CAGR of 12.6 percent from 2019 to 2026, according to Future Business Insights.

These are buildings have energy conservation systems, water systems, smart maintenance, smart security & access management amongst other elements to create an overall uninterrupted and automated experience for the stakeholders & the residents.

Information systems: which defines the IoT infrastructure and the way the city has developed with regards to ICT services, 5G generation of the internet, the speed at which data is travelling and the speed at which the population is receiving some of those services.

This is also a vital pillar which

enables the city to become smart and prepare it for increased automation and enablement. This converts the physical layer into a digital reality. ICT layer & the level of its development helps to determine of the various IoT & connected services can be provided to the population digitally.

Population: This layer determines how the government is interacting with the residents whether through digital services or physical touch points from tenancy renewal to utility payments. In a larger perspective in retail, and when it comes to shopping and E-commerce interactions - Amazon and Uber are classis examples. Smart Dubai Government Establishment is one of the happy partners of Software AG, furthering their initiatives with the help of our technologies.

Over the last twenty years, Dubai has made over seventeen-hundred services available through digital channels, simplified processes for mobile access. With a stack of technologies from Software AG, Smart Dubai has made its multiple touchpoint – digital and therefore redesigned from the perspective of the customer.

Transportation - or connected traffic which is a result of digitalisation that includes traffic monitoring, road management, parking automation and other such pillars that embrace a wide variety of parameters related to mobility outside of the infrastructure alone, beyond vehicles to several other collateral elements that can get connected. Other digitalisation efforts within this pillar include managing environmental concerns such as reducing carbon emissions.

Energy and Water – Developing predictive models for energy and water consumption is a vital mechanism towards building smart cities. Efforts to reduce carbon footprint and use water more efficiently making cities energy and water efficient is a global trend and a huge driver of smart cities.

Every year, around the globe more than 126 billion cubic meters of water (approx. 77 litres/capita/day) are lost due to leakages, poor metering, and tampering and with UAE being one of the driest countries in the world – is extremely aware and cautious of this natural resource usage and At Software AG when we say smart city, we talk about the maximum transferability of the physical realm into the digital one."

management.. Software AG's manner of intelligent linking of data from different sources like sensors, water meters, and weather data is creating new opportunities to use water more efficiently – and therefore more sustainably.

Can you outline to our readers what role Software AG is playing in terms of providing solutions that are going to underpin and fuel the smart cities of the future? Below are some of the few examples highlighted amongst the several other

regional smart city initiatives where Software AG has been playing a key role to enhance the lives of residents and visitors to improve and elevate public sector services, over and above several other initiatives that are also in the pipeline.

Speaking of Dubai alone, a city that is at the forefront of transformation with several digitisation efforts led by the Smart Dubai, Dubai's Smart City projects continue to see movement in line with the city's commitment of making it the happiest and smartest city.

One of their key strategies towards making it the happiest city is going paperless, a strategy where several technological changes are gradually being rolled out through automation in government institutions.

A recent announcement between Smart Dubai and Software AG in line with the paperless strategy will interconnect Dubai wide government entities and key private sector systems and processes to deliver the city's commitment to boost UAE's economy; a step to further harness digital innovation towards a paperless environment.

The initiative is powered by Software AG's multi-function iPaaS webMethods (Integration Platform as a Service) technology towards creating a paperless and digitised government that fosters smart living in 2021.

Dubai's AI roadmap also continues to accelerate through several projects in Dubai. In line with Dubai's AI initiative, Software AG showcased "The

Future Smart City", powered by AI and IoT which showcased several public use cases such as traffic management, smart parking, school bus services amongst others, to improve the lives of residents and visitors that inhabit/ visit a smart city.

Abu Dhabi is another emirate strongly leading the innovation agenda in line with the Abu Dhabi Vision 2030. Making strong headway, a key example is the Abu Dhabi Digital Authority's TAMM initiative, a unified online service platform launched last year.

The entity that is accelerating innovation across the ecosystem as they drive the digital future of Abu Dhabi enabled the launch of TAMM through Software AG's webMethods API Management. The initiative offers a customer journey with a comprehensive set of government services through a single portal.

Beyond the UAE, speaking of Kuwait; one of the recent innovations and progress in line with Kuwait's smart city initiatives launched earlier this year was the ministerial decision to cancel the residency stickers on expatriate passports which is replaced by a civil card issued by the Public Authority for Civil Information (PACI).

In line with Kuwait's focus on smart city developments under the ambitious Kuwait National Development Plan 2035, the initiative was powered by Software AG's iPaaS webMethods (Integration Platform as a Service).

Software AG ensures its commitment and will continue to work closely with the organisations across the region



to implement and launch smart technology solutions across all key verticals.

In the last 12 months, we have heard a lot about the importance of building 'resilient' smart cities. We know that connected IoT devices will be a critical component in the makeup of a smart city, but as cybersecurity threats continue to evolve, how much of a challenge is it going to be to make connected IoT devices secure? The emergence of Smart Cities is inevitable. For the millennials and the younger generation the world has never been any different for them. However, the following needs to be ensured for smooth smart city running. Security - Security of individual and organisational data must be enhanced as it can fall prey to hacking by

cybercriminals. While the smart

cities are underway, organisations



are also integrating security as one of its key elements.

Regulation – government will have to match regulations with the current state of technology. The UAE government is far ahead than most developed nations in this capacity and is paving the path for the private sector too. Quality control is an integral part of regulation here.

Internet bandwidth -Connectivity can pose a challenge to the growth of a Smart City functioning. With 5G expected to be a reality soon, this concern is likely to be alleviated.

Customer Expectations – New waves of technology increase customer expectations. The wider populace has increased expectations from Smart Cities. Therefore, governments and organisations have a big responsibility to shoulder and deliver in the coming years.

Can you tell us about some of the smart city projects

Software AG is currently working on?

Presently, along with du, Software AG is engaged with a series of automation in Dubai and UAE. Together with du, Software AG is in the process of bringing in the smartness and the efficiency in data collected by digitalising and reducing touchpoints between the governments and the population, between the population and the

Together with du, Software AG is in the process of bringing in the smartness and the efficiency in

smartness and the efficiency in data collected by digitalising and reducing touchpoints between the governments and the population." local infrastructures.

Considering how fast information is expected to be transferred in the UAE from one touchpoint to the other, du is embracing a series of automation processes from connected assets to connected infrastructure to connected energy consumption where information is rapidly captured from several devices installed in various different environments and effectively conveyed into a centralised dashboard.

This ensures improved and swift services to the population and becomes vital for disseminating information during times of crisis that have been very recently experienced by the world. Therefore, du, will eventually be a provider of multitude of services in the UAE which will go beyond the fundamental or basic pillars of the definition of a smart city.

The other very current example is that of Software AG's partnership Smart Dubai which is on track for its Paperless agenda 2021 and shares the ruler's vision to make Dubai the happiest place on earth which will also lead it to become a clean, green and an e-based place for all.

Smart Dubai has utilised Software AG's Cumulocity IoT technologies that aid smart lighting, car parking, traffic management, energy consumption, waste management and more that connects private and public sector enterprises by integrating over a whopping 1700 services through digital channels. Smart Dubai has enabled multiple service touch points that makes it easy for residents and visitors.

CARASTI

TRANSFORMING TRANSPORTATION IN THE UAE

CNME Editor Mark Forker secured an exclusive interview with **Claudio Esposito Aiardo**, CEO of Carasti, to find out more about the concept behind the car subscription application that has completely disrupted and revolutionised the way in which we purchase, lease and rent cars in the UAE.

here are some commonalties that we can all relate to as expatriates starting a new chapter of our lives in Dubai, and for many of us the exhaustive and laborious process of trying to either buy, or rent a car is one of the major pitfalls of moving to the UAE.

However, Carasti, a car subscription application that entered the market in November 2019, is serving as a welcome remedy for consumers by empowering them with a greater access to higher quality cars on flexibility subscription plans, whilst removing the painful process that traditionally is involved with paperwork when acquiring a car.

"Our business model was essentially borne out of a desire to remove the pain of car ownership, leasing and rentals, because in its previous form there was just far too much unnecessary paperwork, processes and responsibility. When we examined what consumers want, we quickly discovered that they want access to a car that is not shared and that they can keep, but the reality is that most consumers hate the process of buying a car," said Aiardo. The dynamic CEO of Carasti, explained the primary concept of the car subscription application and essentially what it offers its end-users.

"When you go to market with a proposition that essentially says do you want a brand-new car, or a nearly new car, you have two options, one of which is a minilease product that gives you access to brand-new vehicles on 12-24 months plans. Now, whether it is an Audi, BMW, Toyota, or a KIA there is something on offer that caters to every taste and budget, and within a couple of taps on the app, you simply upload your standard documents such as Emirates ID, Drivers License, Passport and Visa Copy, pay for the month upfront and then have your car delivered to your doorstep no questions asked. It is by far the easiest way to access a car in this market," said Aiardo.

Aiardo also disclosed that Carasti has partnered with some of the key rental fleet players in the region on used cars, and then in relation to brand-new cars they have teamed up with some of the most prominent and popular dealerships here in the UAE.



When asked was he met with resistance by the dealerships and car rental fleets considering the disruption and transformative nature of the Carasti business model, Aiardo said that their entry into the market came at a perfect time as the automotive industry, like other industries

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L-R, Michael Menary, CFO and Claudio Esposito Aiardo, CEO, Carasti



became engulfed in a crisis amidst the onset of the global COVID-19 pandemic.

"When the pandemic struck dealerships and car rentals fleets faced a tsunami in the numbers of customers deciding to terminate their lease agreements, and those that had monthly rentals were cancelling them as many were leaving the country, so it was absolute chaos. At that point they were desperate to find people to support them in growing their business and getting these cars back out on the road. We really leveraged that as a business and were able to negotiate some great rates and that is what really accelerated our phenomenal growth by 200%. We were a very welcome addition to the market as a sales and channel partner, and any resistance that may have been prevalent prior to the COVID-19 crisis was negated by the demand for the services we

were able to provide," said Aiardo.

We act as a broker between the

traditional bricks and mortar businesses,

which are very strict in their ways of

dealing with a consumer directly."

Carasti is the latest example in a shift in consumer spending habits with more and more people indicating a preference for a subscription package over out-and-out ownership. There has been a huge decline in car ownership in the US and UK, and Aiardo was adamant that the subscription model is here to stay!

By 2030, the majority of people will not own cars, unless they are buying a classic car or maybe a hypercar. Ownership will be pretty much redundant by the end of this decade however people will still want access to a private cars. As the automotive world evolves towards electric and autonomous vehicles we will see a further shift in consumer behaviour driven by the manufacturers since the expense of buying and maintaining these cars will be much higher than the traditional

combustion engine and therefore consumers will naturally move to the access not ownership model. You essentially will have a full car as a service solution where you pay your all inclusive monthly subscription fee and batteries, software updates, servicing, insurance etc will all be included and after 2 years you will get the latest and greatest new version of your car delivered. Aiardo's background has always been in technology and he has made a career in building customer experience management platforms, having previously worked for Sprinkler and Google.

Under his direction, Carasti recently announced a successful \$3m pre-Series A investment round, which only serves to further illustrate the confidence in this exciting new company and the impact it has had on the transportation industry here in the UAE.

Aiardo says the company plans to use the funding to reinforce its strong position in the UAE marketplace before looking to scale.

"We plan to use the investment to solidify what we have already done here in the UAE. We want to bring in people, processes and technology to scale - and once those elements have been implemented we will then look at growing into different markets such as Saudi Arabia, Bahrain, Kuwait and Qatar. We are in a phase now where we are hiring the best talent in the region to enhance our entire offering - and we are also introducing some incredible SaaS solutions, which will enable us to communicate with our customers in a much more personalised way," concluded Aiardo.. come

ACRONIS

REMOTE SECURITY

CNME Editor Mark Forker spoke to **Kevin Reed**, CISO, at Acronis, to discuss how the security landscape has evolved since the onset of the COVID-19 pandemic, the concept that security is everybody's responsibility – and the role Acronis is playing in terms of equipping its customers with the solutions to combat cyberattacks following the move to remote working.

eed is regarded as one of the most prominent thought leaders in the cybersecurity ecosystem - and has played a key role positioning the Singaporean security vendor as a global leader in that space.

When asked about the how the threat landscape of the security industry had changed since the global health crisis in 2020, Reed highlighted the agility of cybercriminals to changes in the marketplace.

"Over the last number of years, we have experienced exponential growth in cybercrime, but the COVID-19 pandemic certainly

What we observed during the first few months of the pandemic was a massive growth in hackers scanning the internet specifically for remote desktop protocols." acted as a trigger for an acceleration in the volume of certain types of cyberattacks. We observed that with so many industries on a global scale transitioning to remote working there was a direct correlation with specific types of hacking methods used by cybercriminals. They are sophisticated individuals, and they altered their tactics to allow them to adapt and exploit the vulnerabilities that existed within many enterprises when moving their workforce to a remote environment," said Reed.

Although the sophistication of attacks has increased over the years, Reed highlighted that phishing remained the most effective way for a cybercriminal to infiltrate organisations.

"We have seen that phishing continues to grow and is undoubtedly the preferred method of technique for cyberhackers. If you look at the whole attack life cycle you will see that there is initial success and then they move on to local privileged access, and then eventually attackers are attempting to compromise the whole network, or organisation in a bid to successfully execute their mission," said Reed.

During the first few months of the global COVID-19 pandemic every organisation was forced to implement a work from home model as part of their efforts to maintain business continuity, but as a result of this change enterprises were forced to open their networks.

"What we observed during the first few months of the pandemic was a massive growth in hackers scanning the internet specifically for remote desktop protocols. Attackers were proactively scanning for misconfigured servers because they wanted to send spam. We also witnessed the use of CellNet, a legacy protocol used traditionally for remote access, but it is now used primarily on IoT devices was another target for hackers. Hackers used the protocol to essentially search the internet for typically misconfigured home browsers and then attempted to authenticate itself and once successful would just continue to scan. I do think that it is important to stress that companies were forced to provide remote access, without being given the time to adequately protect themselves against cyber threats," said Reed.

There is a growing perception within the IT cybersecurity ecosystem that security is everybody's responsibility – and that employees need to take more responsibility when it comes to security, and that organisations need to provide their employees with more training. However, Reed has somewhat of a more unorthodox view on this assertion.

"I have seen security professionals being phished, now granted that does not happen too often, but it does happen. The simple fact of the matter is that sometimes it is very hard to distinguish whether a particular e-mail is legitimate or malicious. In many cases, there are no technical signs of what the intent of that e-mail that has been sent. I would not advocate for companies to rely entirely on an employees' ability to recognise a phishing e-mail," said Reed.

The dynamic CISO of Acronis also stressed that if a seasoned security professional can become the victim of phishing, then it is extremely difficult to expect employees, whose job in many cases is to open hundreds of emails per-day without giving it a second thought to be in a position to avoid falling foul of an attack.

"Take recruiters for example, they receive hundreds of word documents per-day and they have to read them all as it's part of their job. Its almost impossible to train people not to click, and I think we need to rely more on technology in that regard than we do now. I believe we should redirect our focus to train employees to report suspicious emails, which is then flagged to a security team, who can then actively respond to this attack by blocking an IP address, or a domain, or clean up old emails from their inboxes and there should be a response protocol to do that and this what companies should be pursuing," said Reed.

Acronis have established themselves as a global leader

in cybersecurity and have an innovative and diverse portfolio of solutions. Reed revealed that they leverage a lot of AI and Machine Learning into their product offering, which has made the vendor one of the go to security providers for businesses looking to bolster their protection.

"We understand that people are working from home so there is no corporate network. Nobody can deny it anymore that there is no perimeter. The perimeter is gone, so that means that every endpoint is now a potential point of compromise. What we are doing at Acronis is focusing on the protection of endpoints, because that is where the initial compromise is happening - and it is where you can prevent the majority of attacks. We have placed a lot of emphasis on AI and Machine Learning in our malware detection, and especially in our ransomware protection solutions. We believe that ransomware is the No.1 threat, but the way we have structured our security

offering is that even if a hacker is successful in compromising your organisation there is always a last line of defense, so even if all our early detections fail along with everything else, and there has been a full compromise – all you need to do is wipe it clean and restore it from the server. Our ability to enable businesses to respond that quickly to an attack is what differentiates us from market rivals," concluded Reed. **COME**

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47

Kevin Reed CISO, at Acronis EVENT

FRESHWORKS

REBUILDING FOR THE FUTURE: THE IT ROADMAP

CPI Media Group in conjunction with Freshworks hosted a virtual webinar that focused on the way ahead for the IT industry as it drives digital transformation and navigates a new normal.

PI Media Group and Freshworks, the IT global software leader, hosted a webinar titled IT Predictions 2021. The event provided an opportunity for IT sector stakeholders and experts to deliberate the important trends, changes and expectations in the industry in the backdrop of the challenges posed by the pandemic in 2020 and the accelerated pace of digital transformation that resulted from it.

In particular, it examined the progress of the industry and the plans being formulated to help businesses adapt to a new normal. The webinar also took a closer look at the speed and depth of IT adoption levels and the impact of the various digital tools and technologies.

Vishal Chopra – Head of Field Marketing, APAC, MEA, Freshworks, delivered the keynote address and moderated the session. The panelists included Dr. Jassim Haji, President, Artificial Intelligence Group – Bahrain and Ahmed Al Ahmed, Chief Information Officer, Nakheel.

The one thing they all agreed on was that the traditional IT operating model is on its way out and that with several players in the fray, IT was beginning to assume a much larger role as advisor and mentor to businesses.

Also, as digital transformation gathers pace and

budgets get curtailed, efficiency and optimisation are becoming keywords, going forward.

Vishal Chopra introduced a research report for 2021 by the Hackett Group which captures the changes across the IT landscape and how IT teams have grown in significance and relevance for organisations today.

Hackett Group is a NASDAQ listed Intellectual Propertybased strategic consultancy and a leading enterprise benchmarking company offering digital transformation best practices to global companies.

Chopra highlighted portions of the study that focused on important enterprise objectives and the IT sector's ability to fulfil them. Accordingly, Risk Management & Cybersecurity were found to be the first enterprise objective and the best in terms of IT's ability.

"Enterprise Digital Transformation occupies the 2nd spot in the list of objectives this year as compared to the 7th last year and there is a new entrant in the priority list of enterprise objectives, which is Remote Worker Effectiveness. This is because of the remote working situation brought on by the pandemic, where IT is expected to provide employees with tools for effective collaboration and productivity," he said.

The panelists agreed that the top objectives and priorities for IT teams in the Middle East had changed during the pandemic. According to Dr Haji, the priorities and objectives set by IT teams evolved significantly since the pandemic because these objectives are now driven more by businesses rather than the IT teams themselves.

"IT is very much an integral part of the business and no longer just a service provider," he said. "In this context, I believe that postpandemic, it is important to transform the routine jobs in the business-mainly the blue-collar activities and this is going to be a challenge for the workforce. There are statistics which say that a significant portion of jobs in developing countries were done by routine activities. That's where Artificial Intelligence (AI) and Automation will now take over and convert those routine





Dr. Jassim Haji President, Artificial Intelligence Group – Bahrain

activities into digitised ones, which will then come down to cost effectiveness. So, how do you minimise losses and increase revenue by the use of modern technologies?"

Ahmed Al Ahmed said that the challenges of the last year caused the IT industry to accelerate and jump ahead by ten years with the implementation of many things.

"A lot of companies positioned themselves during this period (2020) based on their readiness for business continuity, while other organisations are doing that now in 2021 because they did

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not do this then. Now they are looking to their IT operations & governance for a proper business continuity plan in order to accommodate the future," said Al Ahmed.

The panelists concluded that a strong foundation backed by strong data analytics is the best way to ensure that no IT initiatives ever go wrong. The webinar, which proved to be an eye-opener, underscored the fact that as IT emerges from a chaotic year, it is now in the midst of a rebuilding phase which goes beyond mere restoration and is focused on the future. SIEMON

BUILDING BLOCKS FOR SMARTER CITIES

Narender Vasandani, Technical Services Group Manager IMEA at Siemon, penned an exclusive op-ed for May's edition of CNME, in which he discusses the fundamental steps that are integral to build smart cities of the future.

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he world's population is growing rapidly and today half of all people live in urban areas. This trend continues with the United Nations predicting almost 70 per cent to live in cities by 2050. And cities themselves will continue to grow. Around the globe, the number of megacities with more than 10 million inhabitants is projected to rise to 43 in 2030, according to the UN.

With the world's population migrating to cities, pressure on existing city infrastructure grows and cities will need to find new ways of tackling the problems that are likely to affect quality of life. This includes growing demand for utilities like power, better transport and road infrastructures, and the need for safety and security.

New technologies like the Internet of Things (IoT) and sensor technology play a key role in addressing these new-found challenges and can help transform cities into much smarter places.

The IoT for example enables an enormous network of connected devices from traffic lights, modes of transportation and industrial machinery, to security cameras, temperature controllers and lighting inside buildings, whilst sensor technology can help street lights automatically adjust to the amount of ambient sunlight and guide car drivers to an empty space in sensor-equipped parking lots.

In other words, smart cities have data and information and communication technologies (ICT) at the heart, with the overall purpose of meeting the needs of their citizens. It is all about data, specifically collecting data, analysing data and integrating data in order to gain insights that can help improve processes, reduce consumption and costs.

In order to transform conventional cities into smart cities we need to look at the 'components' that make up a city and one such integral piece is the building. So, what role does a building – or better an intelligent building and integrated building infrastructure – play in the development of smart cities?

Intelligent buildings are driven by intelligent systems which integrate and control all elements of a building digitally. This can include the lighting, auto cooling or heating of occupied workspace, and security systems.

Intelligent buildings have advanced systems and sensor technology to monitor, collect and analyse information from a variety of building systems and their devices. In this way, intelligent systems provide an environment that is measurable, controllable and green.

At their core, these buildings have a single unified structured cabling network, such as category 6A or category 7A copper cabling, which enables IP-convergence by supporting formerly disparate building systems over one unified platform. At the same time, the cabling supplies low voltage power via power over Ethernet (PoE) technology to these connected systems and their devices. This generates tremendous savings on capital and operational expenditures, and it significantly reduces a building's energy costs.

For smart cities to develop, smart buildings must be interconnected to each other in a strategic manner. If data that is gathered over time from various intelligent buildings in the city, then monitored and analysed, cities can become smarter, reduce their energy needs and carbon footprint and improve allocation of resources.

It's important to consider, however, that not every smart building fits into a smart city network. Whether a building is compatible within a smart city network, depends on its potential to interact at specific ICT layers and this requires a framework to assess the capabilities of smart buildings.







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ISSUE 349 | MAY 2021

cnme