

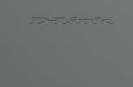


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Herzberg
believes that
solving the
energy trilemma,
which consists
of security,
affordability and
sustainability
will require a
comprehensive
and multilayered
approach."



STRONG LEADERSHIP

The topic of leadership is a prevalent theme throughout this month's edition of CNME.

I spoke to four high-profile CEOs from the global technology ecosystem in an effort to better understand how they navigate the challenges of managing multimillion dollar enterprises amidst the backdrop of a volatile economy.

The front cover issue features Caspar Herzberg, CEO of AVEVA, who outlines the best practices that are required to solve the 'energy trilemma'.

Herzberg believes that solving the energy trilemma, which consists of security, affordability and sustainability will require a comprehensive and multi-layered approach.

Herzberg was appointed CEO in March of this year, and in a brilliant interview he highlights how businesses need to leverage the capabilities of data and AI to really accelerate the decarbonisation process and build long-term value for all stakeholders.

I also spoke to Bill Burns, CEO of Zebra Technologies, who explains how the company is empowering organisations to focus on the 'ondemand' economy.

Burns has been at Zebra since 2015, before his anointment as CEO a few months ago.

Zebra have enjoyed huge success, which he credits to a great product portfolio, a strong culture and an aligned executive leadership team.

SolarWinds CEO Sudhakar Ramakrishna has really turned around the fortunes of the global software giant following a high-profile supplychain attack that rocked the company to the core of its foundations.

However, in a compelling conversation, Ramakrishna documents how SolarWinds went from that low-point, to now being regarded as one of the most secure software companies in the world.

He also discusses his own unique leadership style and how the company's ultimate mission is to enrich the lives of its customers.

Jamie Burrows is the co-founder and CEO of Vertical Future.

The UK-based vertical farming technology company is on a mission to tackle global concerns around food and water security.

Burrows believes that the vertical farming sector is one industry where you can really see that technology is dealing with all the huge socioeconomic, macro-economic, and global issues currently facing all of us.

In this month's Women in Tech series, we spoke to award-winning computer scientist and entrepreneur Melda Akin.

The CEO of D14 AI and new AI–training platform Sirius Labs talks about the challenges she faced during her career in IT.

She said that Sirius Labs was inspired by her own journey, and that is what is driving her to advance female careers in technology through the AI-platform.

 ${\tt CNME}$ also spoke to Nastasi Karaiskos, Managing Director at Rakuten Symphony UK.

The Japanese telco disruptor is on a mission to be the market leader when it comes to Open RAN.

The space has been traditionally dominated by Ericsson, Nokia and Huawei – but the launch of a new customer experience centre in the United Kingdom has been described as significant by many industry analysts, who believe Rakuten could be set to steal a march on their market rivals

On the front cover of GovTech, we have an interview with His Highness Sheikh Eng. Mohammed bin Hamad bin Al Sharqi, Director of Fujairah e-Government Department.

In addition to this, we have an interview with Emirates Health Services and Mobile Ecosystem Forum and an op-ed from Epicor.



Mark Forker Editor



Solar Powered Camera



Powered by solar energy, this kit sets up without any electrical wiring.

Easy installation

Easy set up without mechanical equipment-reducing the installation costs and time.

Can withstand bad weather

Prone to extreme weather such as strong wind and rainstorms.



cnme













6 News

CNME rounds up the biggest regional and global developments in enterprise technology, which includes the news of Huawei's Q1 results, a comprehensive report from Mandiant reveals frontline threat intelligence - and ChatGPT scam attacks are on the rise.

Nastasi Karaiskos, Managing Director of Rakuten Symphony UK, outlines how the Japanese telco disruptor is well-positioned to become the market incumbent in the Open RAN space.

Melda Akin, CEO of D14 AI, believes her new AI-training platform Sirius Labs can advance female careers in IT and technology.

28 Bill Burns, CEO of Zebra
Technologies, explains how the
company is leveraging their
portfolio to empower their
customers to focus on the ondemand economy.

34 Sudhakar Ramakrishna, CEO of SolarWinds highlights the importance of humility in the face of adversity.

His Highness Sheikh Eng.
Mohammed bin Hamad bin
Al Sharqi, Director of Fujairah
e-Government Department talks
about the importance of the role
played by Avaya's cutting-edge
technology in transforming their
day-to-day operations.

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Huawei announces 2023 QI business results

Huawei announced its business

results for the first quarter of 2023 today. In Q1, Huawei generated USD19.2 billion in revenue, with a year-on-year increase of 0.8% and a net profit margin of 2.3%.¹

Overall business results were in line with forecast. Huawei has yet again increased investment in R&D to keep innovating for the future, create new value for its customers, partners, and the communities worldwide, and promote quality development.

The company has recently released its 2022 Annual Report and audited financial results, reporting steady operations throughout 2022, having generated USD92.37 billion in revenue and USD5.12 billion in net profits.

Huawei continued to strengthen investment in R&D, with an annual expenditure of USD23.22 billion in 2022, representing 25.1% of the company's annual revenue and bringing its total R&D expenditure over the past 10 years to more than USD 140.55 billion.

1 The financial data disclosed here are unaudited figures compiled in compliance with the International Financial Reporting Standards; exchange rate at the end of March 2023: US\$1 = CNY6.8519 (source: external agencies).



Mandiant's M-Trends 2023 report reveals frontline threat intelligence

The results of the M-Trends 2023

report by Mandiant Inc., now a part of Google Cloud, have been announced and offer up-to-date information and knowledgeable analysis on the constantly changing threat landscape based on frontline Mandiant investigations and remediations of high-impact cyber attacks globally.

The new report reveals the progress organizations globally have made in strengthening defenses against increasingly sophisticated adversaries.

"While we don't have data that suggests there is a single cause for the slight drop in ransomware-related attacks that we observed, there have been multiple shifts in the operating environment that have likely contributed to these lower figures. These factors include, but are not limited to: ongoing government and law



Sandra Joyce, VP, Mandiant Intelligence at Google Cloud.

enforcement disruption efforts targeting ransomware services and individuals, which at minimum require actors to retool or develop new partnerships; the conflict in Ukraine; actors needing to adjust their initial access operations to a world where macros may often be disabled by default, as well as organizations potentially getting better at detecting and preventing or recovering from ransomware events at faster rates." — Sandra Joyce, VP, Mandiant Intelligence at Google Cloud.

Mindware signs master distribution rights for Genesys in MEA

Mindware has announced its latest

partnership in the Middle East and Africa (MEA) with Genesys, a global cloud leader in experience orchestration, through a Master Value Added Distribution agreement. The agreement will see Mindware promote and distribute the vendor's worldclass customer experience technologies through its expansive ecosystem of reseller partners. These solutions will enable regional organisations to deliver proactive, predictive, and hyper personalised experiences to deepen their customer connection across every marketing, sales, and service vertical, while drastically improving employee productivity and engagement.

Speaking about the partnership, Mr. Nicholas Argyrides, General Manager – Gulf at Mindware commented: "In today's hyper-competitive business world, customer and employee loyalties

are witnessing a decline. Organisations aspiring to succeed must deliver memorable experiences and drive deeper relationships with customers and employees, that ultimately lead to desirable business outcomes. When a technology is able to enhance a positive experience with customers, this inspires loyalty and repeated business. The same is true for employees who are empowered, motivated and engaged. High job satisfaction drives them to deliver better customer care".



Evren Aker, Director of Partnerships – MEA, Türkiye, and France, Genesys (L) with Nicholas Argyrides, General Manager – Gulf, Mindware (R).

OT cybersecurity leaders to deliver open-source information sharing for early warning systems

This week a group of OT cybersecurity

leaders and critical infrastructure defenders introduced their plans for ETHOS (Emerging THreat Open Sharing), an open-source, vendoragnostic technology platform for sharing anonymous early warning threat information across industries with peers and governments.

Founding ETHOS community members include 1898 & Co., ABS Group, Claroty, Dragos, Forescout, NetRise, Network Perception, Nozomi Networks, Schneider Electric, Tenable, and Waterfall Security.

ETHOS will give critical industries a vendor-neutral option for information sharing to combat the growing number



Andrea Carcano, Co-founder and Chief Product Officer, Nozomi Networks.

of cyber threats. An always-on, opensource solution that functions like a hotline to correlate information from many security vendors to identify anomalous behaviours will strengthen cybersecurity defences across industries and ensure more effective government communication and support. ETHOS is under initial cooperative development with the goal of sharing data to investigate early threat indicators and discovering new and novel attacks. As an open-source initiative, any individual, organisation or security vendor may contribute to ETHOS, its direction and many future developments. General membership applications will be available in June 2023.

"The strongest defence is a collective one, including a vendoragnostic mechanism for real-time sharing of early warning data.

The ETHOS platform will offer the most inclusive, creative, and proactive way to share OT threat information. Nozomi Networks is proud to have helped establish the ETHOS community".

UAE hosts the 2023 ACFE fraud conference Middle East

The UAE will host the 2023 ACFE

Fraud Conference Middle East, under the patronage of the Ministry of Finance (MoF) and in cooperation with the Association of Certified Fraud Examiners (ACFE). The Conference will be held in Dubai on 8 and 9 May 2023.

The conference will be held in the presence of Her Excellency Mariam Al Amiri, Assistant Undersecretary for Government Financial Management Sector at MoF, as well as several senior officials from the MoF and from the public and private sectors in the country and region. More than 300 anti-fraud leaders and experts from various public and private sectors in the Middle East will participate in the conference to discuss the latest trends and tools used in the fields of fraud detection and prevention.

Her Excellency Mariam Al Amiri referenced the significance of this conference, noting that it will serve as a pioneering platform through which accounting experts and specialists in internal auditing, governance, and anti-fraud investigation share experiences and expertise. Her Excellency mentioned that the conference will also showcase the best international practices followed in the field of combating

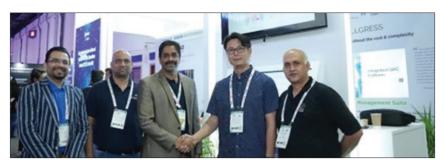


Her Excellency Mariam Al Amiri, Assistant Undersecretary for Government Financial Management Sector at MoF.

fraud, which contribute to bolstering anti-fraud efforts and promoting accountability and transparency in public and private sectors across the region.

Her Excellency Al Amiri said: "The Ministry of Finance is keen to continue supporting the UAE's ongoing efforts in combating fraud and maintaining the stability and integrity of the fiscal system, and we are committed to enabling a robust fiscal performance in the UAE. Hosting the 2023 ACFE Fraud Conference supports our endeavours to combat fraud and white-collar crimes while providing the UAE's public and private sectors with the necessary tools and solutions to develop their anti-fraud capabilities. The conference also allows us to enhance best governance and transparency practices, thereby contributing to advancing the UAE's comprehensive and sustainable development process".

Finesse and Aguila Clouds partner up to address cloud financial management



Finesse, one of the leading digital

transformation companies in the Gulf Cooperation Council (GCC), has teamed up with Aquila Clouds, a leading provider of Cloud Financial Management solutions, to provide businesses in the region with a comprehensive suite of tools to gain visibility into their cloud costs, streamline their cloud utilisation, and achieve financial effectiveness.

Aguila Clouds has established itself

as a market leader in Cloud Financial Management solutions by enabling businesses to gain complete visibility of their costs and utilisation metrics across multiple clouds - AWS, MS Azure, GCP, Oracle Cloud, and VMware. By adopting the Continuous Monitoring and Continuous Optimisation (CMCO) philosophy, Aquila Clouds provides real-time observability and optimisation related to cloud costs, infrastructure and application

performance, and future cost trend analysis. This allows businesses to make informed decisions and optimise their financial performance in their cloud deployments.

"We are excited to partner with Aguila Clouds to offer our customers a comprehensive solution for their cloud financial management needs", said Eljo J P, Finesse CBO & Director. "Our digital transformation expertise, combined with Aguila Clouds' Cloud Financial Management platform, will enable businesses to optimise their financial performance and stay ahead of the curve."

"The partnership between Finesse and Aquila Clouds represents a significant step forward for businesses seeking to modernise their financial operations around the cloud", said Desmond Chan, Co-founder and CPO of Aquila Clouds. "By leveraging the power of cloud technology and expert software integration, businesses can achieve optimal performance, security, and cost-effectiveness for their financial operations".

Businesses prioritise unification and automation of cybersecurity estates

Organisations across the Middle

East have realised that investing in multiple security tools without any integration leads to an ineffective siloed defence framework with continuously escalating operational costs. They are therefore prioritising automation and consolidation of their cybersecurity estates, a leveraging platform/mesh value propositions from leading cybersecurity vendors, according to the State of the Market Report 2023 by Help AG, the cybersecurity arm of e& enterprise (formerly Etisalat Digital) and the region's trusted security advisor.

Stephan Berner, Chief Executive Officer at Help AG, said: "Cybersecurity is the crucial component of successful digital transformation and needs to be built in from day zero and beyond. Through the State of the Market Report 2023, we enable readers to understand how they can innovate to bring in

the best of people, processes, and technologies, automate to enhance agility and improve time to value, and elevate the resilience of their enterprise to thrive in the hyper connected era where experience is of paramount importance and availability needs to be constantly on".

Nicolai Solling, Chief Technology Officer at Help AG, added: "In a hyperconnected world where threats are becoming more sophisticated and frequent, it is increasingly essential for the public and private sector to work together, sharing knowledge and creating a united front against malicious actors in the digital sphere. Making our State of the Market Report readily available to organisations across the region provides essential intelligence into the state of cybersecurity in the Middle East, arming key players in the industry with the knowledge to protect themselves against cybersecurity threats".



(L-R) Nicolai Solling, Chief Technology Officer at Help AG & Stephan Berner, Chief Executive Officer at Help AG.

ASBIS will showcase its expertise at GITEX Africa

ASBIS is honoured to participate in

the first African edition of the world's biggest start-up and investor connector event, GITEX, that will take place from 31 May-2 June 2023 in Marrakech, Morocco.

It is plain at a glance that GITEX Africa is poised to be the continent's most influential and largest all-inclusive tech event: over 20,000 trade buyers, 900 exhibitors and start-ups and 125 government delegations will gather together this year. Attendees can visit ASBIS at the stand 3D-50, Hall H3.

In the framework of the event ASBIS will introduce new products and solutions from the key vendors including Intel, Supermicro, AMD, Mimosa, Philips, Logitech. The last one will be represented by Logitech accessories and conference room solutions.

"My personal first acquaintance with GITEX began from the first edition GITEX Dubai in the early 80s. I was excited and inspired by that



Hesham Tantawi, Vice President ASBIS MEA.

conference and doubly excited now, when we join the first GITEX tech show in Africa this year. ASBIS has been committed itself to Middle East and Africa course for over 20 years and providing wide range of the best tech-driven solutions and products for different industries and businesses from the biggest tech companies. We are honoured to be involved in the process of the development of the MEA region technology ecosystem as well as unleashing the digital limitless opportunities of the continent", comments Hesham Tantawi, Vice President ASBIS MEA.

UAE employees demand better support from IT teams



Prasad Ramakrishnan, Chief Information Officer at Freshworks.

A new report by Freshworks Inc., revealed a surprising juxtaposition for IT teams in the UAE. While on average, IT service requests from employees in the country are resolved 20% faster than the global average, when it came to the employee satisfaction[1], the nation placed in the bottom 4 of the 25 countries in which the research was conducted.

Freshworks' report also found that while First Contact Resolution for IT service tickets in the country (80.8%) is also impressively higher than the global average (72%), the ability of IT teams in the UAE to meet resolution SLAs (90.8%) is still lower than the global average (95%).

"As IT continues to permeate every aspect of the modern business, employees become increasingly reliant on tech support teams to provide more efficiency. Having become accustomed to exceptional service as consumers, they as professionals now demand similarly high quality of support from their company's IT service organisations", said Prasad Ramakrishnan, Chief Information Officer at Freshworks.

ChatGPT-themed scam attacks are on the rise

ChatGPT has exploded in popularity

in the last few months - with people using it for everything from writing rap songs, doing their homework, writing cover letters for job applications, and even reviewing code.

It's no surprise that attackers are also trying to leverage the popularity of the app to scam people.

Palo Alto Networks Unit 42 releases research on how ChatGPT-themed scams are on the rise as generative AI continues to grow in popularity. The research highlights scammers' various methods to entice users into downloading malware or sharing sensitive information, including specific case studies and examples. Highlights include:

- Between November 2022-April 2023, Unit 42 observed an increase of 910% in monthly registrations for domains related to ChatGPT
- There were more than 100 daily detections of ChatGPT-related malicious URLs captured from traffic seen in the Palo Alto Networks Advanced URL Filtering system
- In the same timeframe, the team observed nearly 18,000% growth of squatting domains from DNS security logs





10

MAY 2023

Japanese government, or the MIC (Ministry of Internal Affairs & Communications)

are working very closely with many MNOs in the UK, as well as the rest of Europe," said

Karaiskos.

Karaiskos said that the telco disruptor is considering other labs based on their customer needs around Europe, and declared that the experience centre in the UK won't be the only centre in Europe. He conceded that there remains some resistance towards Open RAN, but believes that the customer experience centre will encourage the adoption of the technology in the coming years.

11

"The purpose of the lab is to serve as a space for us to encourage adoption, but with any new disruptive technology, as Open RAN is, naturally there will be some fears and concerns. You have to take into consideration that when operators have had a certain way of doing things for so many years then there are always going to be challenges to overcome. It is quite common for there to be resistance towards change," he said.

Karaiskos added that one of the key takeaways that they took from the opening of the centre was how supportive

RAKUTEN SYMPHONY UK

OPEN FOR BUSINESS

CNME Editor Mark Forker spoke to **Nastasi Karaiskos**, Managing Director at Rakuten Symphony UK, to learn more about the significance of its recently launched Open RAN customer experience centre in the UK – and how the telco disruptor is well-positioned to become the market incumbent globally in the Open RAN space.

astasi Karaiskos has been at the heart of telecommunications transformation over 20 years. He began his career at Colt Technology Services, before moving to US behemoth Verizon and then on to NTT.

He established Rakuten Symphony UK in January 2022 on behalf of the internet services giant, and has been tasked with the responsibility of driving the growth of the Japanese telco disruptor in the United Kingdom.

Rakuten Symphony are positioning themselves to be the 'go-to' player for Open RAN – and the recent launch of their Open RAN Customer Experience Centre in the United Kingdom has been labelled as a 'major step forward' by industry analysts.

In a candid and in-depth discussion with CNME, Karaiskos acknowledged that historically, the radio access network space has been dominated by a very small number of vendors, but he believes Rakuten Symphony are disrupting the status quo, especially when it comes to Open RAN.

Ericsson, for example, has been far from enthusiastic about the capabilities of the fledgling technology concept.

"Our UK and European customer base is growing as the adoption of Open RAN and need for operational automation increases. My technology experience has been around building networks, cloud, and building the infrastructure around data centres and putting fibre in the ground."

Karaiskos explained the process behind Rakuten opening their experience centre in the UK, and expressed his belief that it will serve as a great hub for talent and innovation.

"We applied as part of a public tender process to the

Both the UK and Japanese governments really see Open RAN as being the predominant technology for the future development of the telecoms industry."

both the UK and Japanese government are of Open RAN.

"Both the UK and Japanese governments really see Open RAN as being the predominant technology for the future development of the telecoms industry. They were very impressed by its security and scalability — and that's very important for industry players to both see and hear, and will only serve to accelerate adoption of Open RAN," said Karaiskos.

Karaiskos emphasised the importance of dispelling some of the myths about Open RAN, and said that Rakuten

Symphony are in a good place to do just that.

"People often ask the question 'Is Open RAN secure enough, should we be moving to something more secure'? We hosted a panel on security at the launch of our centre, and one of the government members from the UK explained how they were removing a certain supplier from their network due to security fears. There are different ways to look at this, but having a diverse ecosystem of software, hardware and services companies promotes competition which is healthy for the industry," said Karaiskos.

Karaiskos bemoaned the relatively rigid nature of how contracts with vendors worked in the past, and said the 'flexibility' of Open RAN represented the future.

"It was far too restricted in the past - typically you would sign up with one vendor and then you'd be with that vendor for the next 10 years or more. I believe that having the flexibility of partners from different regions is the best way forward, and the diversification of suppliers, vendors and partners can only be a good thing for the industry, there are many combinations that



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Operators can consider when thinking about Open RAN," said Karaiskos.

Karaiskos said that at this year's MWC in Barcelona, it was evident that Open RAN had moved from something that was being merely investigated to a strategically important topic for all the major operators, with budgets being assigned accordingly. He believes that Rakuten Symphony's role in that transition is to help their customers on their journey to Open RAN.

"I believe that our Open RAN Customer Experience Centre is designed for us to support customers on their journey and to display our solution stack, which consists of Open RAN, cloud, operations and automation. It is a centre for partners to do joint-testing, and we also see this centre as an area to promote telecoms as a future career for young graduates. We are working with a local university, so together we can promote the future of this industry and make the sector more attractive to graduates," said Karaiskos.

Karaiskos praised the accessibility of the new experience centre in the UK, but also pointed out that Rakuten Symphony have two other labs in Tokyo and one that will soon be launched in Bangalore.

"The benefit of visiting the lab in Tokyo is the fact that you get a real flavour of the network that we built for Rakuten Mobile. We have replicated a lot of what we have done in those two labs here in the UK, so it can also serve as a replication centre for the other two labs," said Karaiskos.

The UK government announced in 2019 that 35% of UK mobile network traffic will be delivered by Open RAN and Open Networks by 2030. That's a very strong statement in support of Open RAN."

Karaiskos praised the role played by the Japanese Ministry of Internal Affairs & Communications in terms of the support they have shown Rakuten on their Open RAN journey.

"The MIC have been very supportive to us as a company, not just in Japan, but also internationally. They are also big advocates of Open RAN and the emerging technologies that surround it. They have been very impressed with how we translated the original proposal into a reality in such a short period of time. We were granted the award on the 16th of October, and had the centre open by the 28th of March. They are delighted with how we have delivered the project and they have been very supportive in terms of introducing us to the UK government, and other governments across the world," said Karaiskos.

Karaiskos said that the UK government sees Open RAN as the future of the telecommunications industry and believes a statement made by the Department of Culture, Media & Sport in 2019 really helped propel the development and adoption of the technology amongst operators.

"The DCMS announced in 2019 that 35% of UK mobile

network traffic will be delivered by Open RAN and Open Networks by 2030. That's a very strong statement in support of Open RAN, and it supported not just Rakuten's vision, but the entire ecosystem for change," said Karaiskos.

Karaiskos also highlighted the transformative impact automation can have for telecommunication operators, drawing upon the success of Rakuten Mobile, Japan's fourth mobile network operator. Rakuten Mobile owns the largest Open RAN virtualised cloud deployment in the world, with just under 400,000 sites currently in operation and almost 100% coverage.

"Operators are very open in terms of looking at what we are doing here because they see the benefits that automation can bring for them. We know that in a typical telecoms' estate automation hasn't featured particularly heavily. The example we often use is the network size of Rakuten Mobile. The national network coverage of Japan is just under 100%, a network of that size from my experience of working with European operators you're going to need a huge team of anywhere between 6,000-9,000 people in terms of field services, operational staff, SOC and NOC to manage that the network. However, at Rakuten Mobile that network is being operated by 250 people because of the automation. Operators need to look at how they can optimise and automate their operations to improve scale, commercial and energy efficiency Karaiskos said.

MOBILE ECOSYSTEM FORUM

TIK-TOK: THE TIME IS NOW

Dario Betti, CEO of Mobile Ecosystem Forum, believes that the time has now come for the major stakeholders across the industry to get together and start addressing some of the critical questions that need to be answered in the current digital economy.

ario Betti has enjoyed a stellar career in telecommunications, one that has seen him work with operators such as T-Mobile, Deutsche Telekom and Ooredoo.

Betti has been the CEO of Mobile Ecosystem Forum since 2019.

MEF are a global trade body that acts as an impartial entity designed to drive and advance the development and evolution of the mobile ecosystem.

Under the stewardship and tutelage of Betti the group have made huge progress during a time of rapid technological progress.

However, the technology landscape is a complex environment, and it is always the case that with great change comes challenges, but it is the aim of the MEF to facilitate discussions around the best practices that we need to adopt to overcome some of the obstacles standing in our way.

He kickstarted the conversation with CNME, by outlining how it was such an exciting time for the mobile ecosystem.

"We believe that we are



just starting to experience and experiment with the real potential of mobile computing. It's a very exciting time, so it's our objective to get people and companies together to share their ideas to explore, and ultimately advance the potential that exists. However, whilst there are so many good things happening in terms of

development on the mobile side, there are also bad elements, such as an increase in fraud and cybersecurity attacks. We need to protect consumers, and these factors are why we regularly examine the health as well as the potential of the market," said Betti.

Betti said that one of the key benefits of MEF was the fact that members could challenge their peers and have a better understanding of the constantly evolving dynamics within the industry.

"We are a think-tank, and our members relish and embrace the opportunity to challenge their peers, they want to challenge regulators, and the industry as a whole. I believe the critical component is to ultimately collect information on everything that is happening in order to determine what measures and practices we need to take to advance mobile development globally," said Betti.

We are a think-tank, and our members relish and embrace the opportunity to challenge their peers, they want to challenge regulators, and the industry as a whole."

MAY 2023



In terms of the makeup of the mobile ecosystem, Betti stated that there isn't one single player that can control everything that happens in the market, adding that their membership consists of banks, retailers, supermarket chains, insurance companies, mobile operators and solution providers.

"The reason why none of our members would necessarily be able to hold all the keys is the fact that whether it's a wholesaler, or an operator, our services and experiences are now provided by complex value chains. However, fraudsters like complex value chains because they can examine and look for the weakest point and attack it. One of the key questions that is asked amongst the industry is, who is to blame? Now if you're a consumer that's been impacted then you're going to be looking at your operator or service provider. However, we facilitate a process that looks at it from

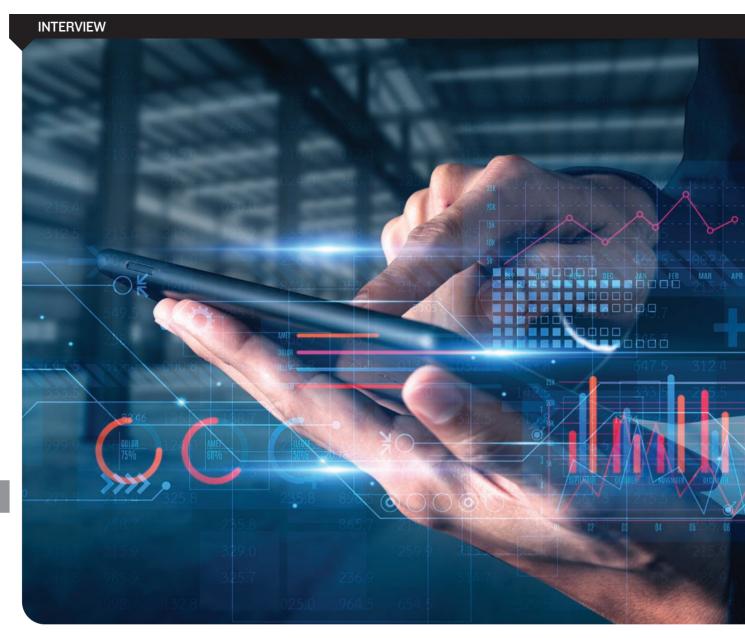
right across the ecosystem because that's our job. We don't just represent the operators, or another member, we are there to remediate issues and make recommendations that can improve the situation," said Betti.

Standardisation is a key focus area for MEF, but Betti said that the despite the fact they love standards it's not what they do.

"We love standards, but at the same time we don't do standards. We work closely with other companies and organisations out there that have created standards to inform us of what we need to do to advance standards. We firmly believe that competition and building your own products are fine, but there are some areas in which you really need standards," said Betti.

Betti added that just like fashion standardisation can be very much be in and out of vogue.

"One of the things that I like to reflect on sometimes is the fact that things like fashion go up and down. At the end of the 90's, the hottest thing in technology was the standardisation model. But as we know things change, we now have data that can be delivered, and applications on every mobile phone. Back in the late 90's, we could never have imagined that mobile phones could be so cheap and be in the hands of billions of users. The excitement now is being concentrated on the application layer where things are very competitive, but we're also seeing regulators now looking a lot closer at all of it," said Betti.



Betti pointed to the recent grilling of Chinese social media platform TikTok by the US congress as an example of the increase focus from regulators, and said it really is time that we started seeking answers to the difficult questions being asked.

"I think what was interesting during the exchange between the US congress and TikTok was the admission from some US congressman that TikTok is just one application that is under intense focus and scrutiny, but there are hundreds of similar apps out

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there. Competition is healthy, and we need it, but there is also now a realisation that we need to set out frameworks because certain applications might grow into something that we don't want. It's the right time now to really get together and start addressing some of these big questions.

You can have anonymity where nobody knows who you are on the internet, and that's a great freedom, but you also don't know how old somebody is, so how do you protect a minor. Now is this not something that we want to address? If it's not standardised then at the very least, we need to establish,

Competition is healthy, and we need it, but there is also now a realisation that we need to set out frameworks because certain applications might grow into something that we don't want."

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or understand what the best practices are to make this safer, again it goes back to my early point, we have to protect end-users and consumers," said Betti.

Betti was positive and said that the technology needed to address some of our biggest concerns is available to us, and can provide us with a decent and satisfactory level of oversight on all of this, but my question was if that's the case then why are we not doing it?

"I think the ecosystem has the power to drive it, but what we need to do is get the

strengths and interests of multiple players together and get them aligned, and if we address it together then I don't think it will be that difficult to resolve. Difficult is quite a relative word, it might not be easy, but it is certainly not impossible. What is really driving us is the fact that there is a clear societal and economic need to be addressed. There are solutions and processes out there that we can tap into, so let's get all the key stakeholders around the table together and make it happen," said Betti.

Betti believes the solutions are available, but does he think the issues he has highlighted can be resolved?

"I think in the end the question of intent needs to be there, but I'm optimistic, because it's not impossible, and as I have said we have solutions out there. What I believe needs to be done to really be effective is for it to be standardised, and if not standardised then at least be aligned. What we don't want is for every single country to set-up their own specific ways of identifying people because it would just be so problematic and fragmented. We need to raise the bar, have an appreciation of what things may look like, and just set the scene in some places. Geopolitically the world we live in is changing, and the global standards that we want to establish are probably more difficult to be agreed upon right now, but we can still have regional alignments and that's very important," said Betti.

The telecommunications

and IT industry is one of the most energy intensive sectors in the world.

Can 6G technology really help the sector reduce their carbon emissions?

"6G is still under discussion. Standards exist because they identify and focus on a topic that needs to be addressed. One of the things that we can use standards for is to ensure that they are inbuilt into an agenda, so we can do this with 6G. A question being asked now by operators and regulators is what does an environmentally-friendly approach look like," said Betti.

5G was more efficient in some ways, but as Betti points out it consumes a phenomenal amount of energy to power the network, but again, this is where standards can play a transformative role.

"5G in itself might be considered environmentallyfriendly because it consumes a lot less when processing data, so there is an efficiency there. However, to power 5G networks it requires a lot of energy, so yes, it might be a bit more efficient, but you end up spending much, much more. What people are asking 6G to do, is to look at that element and determine how you can massively reduce the overall footprint to power the network itself. That's a good example of how standards can really help you, and again MEF will be at the forefront of this driving conversations and discussions to resolve the resolve challenges and exploit the potential that exists," said Betti.

WOMEN IN TECH

EMPOWERING REAL CHANGE

In the latest in our series of Women in Tech interviews CNME Editor Mark Forker speaks to **Melda Akin**, CEO of D14 Al, on the launch of her new platform Sirius Labs, which is designed to advance female careers in technology and IT across the Middle East.

elda Akin is an award-winning computer scientist and entrepreneur.

A native of Turkey, Akin has firmly established herself as one of the most inspirational and powerful female leaders within the IT and technology landscape across the Middle East - following the launch of her company D14 AI in 2018, and Sirius Labs in January of this year.

Her story is all the more remarkable, when you consider some of the barriers she has had to overcome to succeed in an industry, which we know is still predominantly occupied by men.

However, inspired by her own journey, Akin wants to make the journey into STEM-related positions for the next-generation of female leaders a much more accessible one.

Akin acknowledges that a lot of progress has been made in terms of the gender disparity in IT and technology, especially across the Middle East, but a lot more needs to be done.

She is confident that her new mentorship incubator Sirius

Labs can be a vehicle to propel women to pursue a career in STEM.

"The concept of Sirius Labs was inspired by my own journey. I studied computer science, and I learned how to code from an early age. However, in the STEM-field globally, we know that it is a male-dominated environment - just 19% of the global tech workforce is female. I encountered many struggles on my journey, and it was not an easy path. But I was acutely aware that my experience was not unique, and countless other women globally working in STEM positions faced similar challenges. In an effort to change this I started to do mentoring in high schools and universities, and the classes were ultimately designed to encourage women considering a career in a STEM-related field to pursue their dreams. The mentoring sessions allowed me to get a better understanding of why women were dropping out of STEM courses in University, or losing interest in the subject at high school. By accumulating the data on what the most prevalent issues were, allowed me to devise a set of solutions and best practices to improve the situation," said Akin.

Akin said that after about 5 years of mentoring she reached a point where she could now finance the initiative on a full-time basis, and in January, 2023 officially launched Sirius Labs.

Akin added that there are a number of brilliant mentoring programs out there, but said it's critical for aspirational young women to see someone just like them go through the journey and success.

"There are amazing mentorship programs out there, there's no doubt about that. However, as a young female student you need to be able to point to a female role

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My CEO promoted me because he believed in me, and he saw huge potential in me. That type of support is so empowering, and it makes such a difference."



model that has been through that journey. That's inspiring, uplifting and tangible. When they see it, they believe it.

We created a program specifically related to STEM fields and that equips young aspirational women with the tools and knowledge to deal

with some of the issues they will inevitably face. It's an exchange of knowledge and we want to build a community that allows women to support each other in the IT and technology ecosystem," said Akin.

Akin highlighted the positive impact their mobile

application is having in terms of better educating users on the disruptive technology that is constantly evolving and emerging.

"We know that there's great content online, but our mobile application has been designed to support end-users that may not have a strong background in technology. Disruptive technologies like AI are a hot topic right now, but our application helps them better understand the processes of AI and the computer logic behind it. We have developed two versions that people can subscribe to on the mobile app. The first option provides users with access to free content on a number of different technology and subjects - and the second version is monetised, where we partner with companies and academic institutions to create content that our users can consume on a daily basis," said Akin.

Akin is aware that globally there are huge macro-economic problems, and many potential users may not have the finances needed to either access their content, or get into programs at University.

However, in another powerful illustration of her desire to make people's lives better through technology, those that don't have the fiscal means to access the content can sign up for free.

"The economic situation globally is volatile to say the least, so many students may not have the financial power to get into universities, or access these programs on our mobile application. However, we want to provide these people with



access to our programs, so we have created an initiative that allows them to join for free, but when they join the workforce, they can start making repayments to the course. We work closely with a lot of companies to find out what type of project manager they want, what type of data scientist they want and so on, and that helps us curate our courses and content, so this relationship is mutually beneficial and it's a win-win situation for all parties," said Akin.

Akin conceded that cultural aspects can be a factor in why

many females don't pursue a career in STEM.

She credited her uncle and her father with invoking her passion for computers and technology at a very young

"I do think that there can be cultural factors at play when it comes to STEM positions, especially in certain regions, many women are told that certain jobs are for men exclusively, but that's where the role of education is key in creating awareness and getting rid of outdated stereotypes. I was very lucky that my uncle was establishing computer labs in Turkey, so as a young child I was exposed to all the language and terminology around technology and computers. My family were extremely supportive of me, and my Dad bought me a computer at the

We created a program specifically related to STEM fields and that equips young aspirational women with the tools and knowledge to deal with some of the issues they will inevitably face."

MAY 2023



age of 10, and he said to me you have to learn about this machine because it represents the future," said Akin.

As a 10 year old Akin loved skating, but her dad made a deal with her, if she attended a computer course then he would take her to the skating rink afterwards, the deal worked a treat, as after a few weeks the CEO of D14 AI became fascinated by technology.

"I became fascinated by how the computers worked, how they connected to the internet, how they could speak to people based in Sydney, or the US, I just wanted to know how it all worked. I struggled academically when it came to social sciences, but with mathematics, geometry and engineering I excelled, and because of that I decided to study computer science at University," said Akin.

Akin said she didn't really experience any bias when she attended University, and praised her professors for being supportive. However, she did say that there was a big focus on coding exclusively, which she didn't agree with now, or at the time.

"My professors at University, were incredibly supportive to me, but they were always saying to our class that we all had to focus on coding, but I didn't agree with that. The roles you need in the current digital economy now go way beyond coding. Companies need project managers, data scientists, data analysts, and experts in delivering UI and UX. The job spectrum now is a broad one, and companies are looking for candidates who have a whole range of different skillsets and capabilities," said Akin.

Akin admitted that she first experienced bias and gender inequality when she moved into employment after she finished her degree.

"When I entered the workforce, I saw first-hand the bias that existed. The environment and culture in some companies was just not conducive to elevating women into positions of power. We are a minority as it is a maledominated environment, and despite the progress that has been made it remains the case. It's hard to think you can

reach the top when you don't see anyone like you at the top table," said Akin.

However, Akin was lucky that she then worked with a CEO who had a very progressive mindset.

"The CEO at one of my companies was absolutely fantastic. The mindset, culture and environment are so important in any company, and he fostered an incredible culture within that company. I'm from Turkey, and hierarchy is very important, if someone is older than you then you respect them. My company wanted to promote me to become a director, but I was initially reluctant. I told my CEO I'm not going to be able to do this, I'm only 26, and don't think this is right time for me. However, my CEO said he didn't care about my age, or my gender. He said what I had delivered in the job had opened doors for them as a company, and had helped us grow," said Akin.

Akin said that this is an example of real leadership, and said if companies are really serious about addressing gender inequality in the IT and technology industry then this is the approach that they have to take to make impactful change.

"My CEO promoted me because he believed in me, and he saw huge potential in me. That type of support is so empowering, and it makes such a difference. You don't need hundreds of role models, you only need one or two inspiring leaders who are willing to give back to the community, and that fosters real change," said Akin.

EPICOR

MANUFACTURE YOUR SUCCESS

Vibhu Kapoor, Regional Vice President - Middle East, Africa & India, Epicor has penned an exclusive op-ed for May's edition of CNME - in which he outlines the three technology trends that he sees as pivotal to the advancement of the manufacturing sector across the Middle East region.

anufacturing in the UAE was 10% of GDP in 2021, its largest share since 2005. While seeing a series of ups and downs, mostly in the shape of global crises, the industry has grown overall since 2011.

Operation 300bn, the UAE's industrial strategy, is a clear signal of the importance the nation's leadership places on manufacturing in diversifying and future proofing the economy.

And government decision makers have doubtlessly watched, with justifiable pride, as the manufacturing sector prevailed through some of the worst economic conditions in living memory. It faced systemic disruption to the supply-chain, widespread talent shortages, and soaring inflation. And it responded with admirable agility.

That agility will, it seems, continue to be tested as economic uncertainty shows no signs of abating. Manufacturers must keep one eye on the drawing board, ready to change when the need arises. Meanwhile, they must investigate every part of



their operations and sniff out opportunities for streamlining processes.

The UAE Ministry of Industry and Advanced Technology, the department behind Operation 300bn, recently launched the Industrial Technology Transformation Index (ITTI). A key pillar of the Technology Transformation Program, the index is aimed at formally assessing the Industry-4.0 readiness of UAE manufacturers and advising them on the best ways to digitize their operations.

What will emerge from this program is likely a further acceleration of technology implementation as firms keep their sights set on the promise of Operation 300bn. As time rolls on, the sector's success stories will, I believe, be defined by three main adoption trends.

1. The cloud

The cloud has many advantages and most of the old arguments against its adoption are fading away. When necessity forced UAE businesses into some form of cloud model during pandemic lockdowns, the fear of the unknown — a major reason for migration aversion — was all but eliminated.

Now that hybrid work is considered an irreversible reality, the manufacturing industry's relationship with the cloud is no longer in doubt.

The cloud's capacity to optimize is what makes it so attractive to manufacturing decision-makers whose principal concerns are efficient production and minimal waste.

In a tight market, high yields and customer satisfaction also play leading roles. Cloud-native ERP solutions connect the business in a way premises-based platforms cannot. All stakeholders have critical information at their fingertips, on their device of choice, at the time of their convenience.

Information silos are swept away and replaced with centralized repositories of corporate wisdom that detail the entirety of the production lifecycle, from design and resource procurement to production and sales.

This connected environment is, of course, a boon to realtime operations, but it also offers opportunities for the analysis and fine-tuning of processes to enhance those operations continuously. It is this ability that offers the agility necessary to make rapid changes in response to externalities. For that reason alone, the cloud makes its business case for UAE manufacturers.

2. Data

Today, data is priceless.

Manufacturing has always used it to optimize individual processes, deliveries, warehousing, and sales, but it has now become central to the overarching strategy of the business.

It can be used for market-watching, allowing the organization to identify changes in customer behaviour early. It can be leveraged to flag supplychain issues before they damage efficiency and reputation. It can allow the monitoring of internal trends like production or of external ones such as those in the labor market.

But these analyses are only as good as the data that fuels them. When it comes to data, we should think in terms of quality over quantity. Clean, accurate data will give actionable insights. Suboptimal data may hurt more than it helps.

Part of the challenge of ensuring an organization has access to sufficient data lies in the existence of silos — fiefdoms of ownership characterized by a territorial claim to data. It's financial data, so it belongs to finance; it's employee data, so it belongs to HR.

These barriers must be demolished, and data united in a store owned by everybody. A common data model will ensure each team has a comprehensive view, not only of what matters to them most, but of how their work fits into the enterprise as a whole.

starts can be developed, through training, into data experts.

And the same can be done with existing employees who demonstrate analytical acumen. What manufacturers should be aiming for is a collaborative ecosystem in which anonymized datasets can be shared externally, thus providing a picture of how they rate against competitors.

3. Automation and integration

UAE manufacturers should look out for opportunities to integrate new tools that have the potential to supercharge their entire technology environment. Given the leading role the UAE has played in the rollout of 5G networks, we can expect many local and regional technology companies to offer IoT solutions that will bolt into

Now that hybrid work is considered an irreversible reality, the manufacturing industry's relationship with the cloud is no longer in doubt."

One of the other main challenges manufacturers must overcome in capturing value from their data is the region's infamous skills gap. There are many ways to address this issue, including embarking on expensive recruitment drives. However, the newly hired data scientist may lack the contextual business knowledge to identify use cases and add value.

Another approach may be to concentrate on acquiring digital-native talent that understands analytics but is not necessarily a data professional yet. These cost-effective new

the existing cloud environment and into ERP systems.

This represents a sea change in the capabilities of the modern manufacturer, in terms of optimization, predictive maintenance, and a range of others.

Keep calm and carry on

While the global economy continues to feel tremors, the UAE manufacturing industry should continue its digital innovation, which has so far protected it and allowed it to flourish. So, keep an eye on the trends described here, and thrive.



AVEVA

CONNECTED INDUSTRIAL ECONOMY

Caspar Herzberg, CEO of AVEVA, tells CNME Editor Mark Forker, that in order to accelerate the decarbonisation process, and build long-term value for all stakeholders – the energy industry needs a data-centric, and Al-enhanced approach to the global energy value chain.

VEVA is a global leader in industrial software – and its cutting-edge portfolio of solutions are driving digital transformation and sustainability across the global energy ecosystem.

Caspar Herzberg is one of the most prominent thought leaders in smart cities and digital transformation – and has enjoyed a decorated and distinguished career as a corporate entrepreneur.

He spent the best part of a decade at IT behemoth Cisco, before joining Schneider Electric in 2015.

In March 2023, he was appointed as the new CEO of AVEVA.

In a compelling and candid interview, Herzberg outlines how tackling concerns around security, affordability and sustainability, referred to as the 'energy trilemma' is an existential issue that the energy sector needs to address now.

The pace and rate of change in today's rapidly evolving economy means industries are managing a constant balancing act.

The energy sector is particularly faced with responding to increasing pressure for environmental responsibility while maintaining consistent and dependable energy supplies at affordable and equitable prices — and with energy demand expected to soar over the next three decades, Herzberg says the time to act has come.

"Global energy demand is predicted to increase by 47% over the next 30 years, thanks to population and economic growth. Yet, unprecedented operating conditions including geopolitical tensions and dynamic and complex market situations – have created an uncertain business scenario, sparking security and affordability concerns. At the same time, avoiding the worst effects of climate change requires realigning value chains to meet net–zero carbon emissions targets, and transition to renewable sources of energy," said Herzberg.

Herzberg believes that solving the energy trilemma of security, affordability, and sustainability will require a comprehensive and multilayered approach.

"I believe that three pillars are essential to solving the energy trilemma. Firstly, policy approaches help by way of setting goals, enacting new regulations, and creating incentives. Secondly, market-

44

Advances in data collection, optimisation and information sharing are unlocking greater value and creating new routes to sustainable operations – a phenomenon we call the connected industrial economy."



based solutions such as carbon pricing, energy auctions and efficiency incentives play an equally important role. However, the third and most important pillar is technology. Developments such as cloud computing, artificial intelligence (AI) and robotic process automation can help improve energy efficiency and reliability, while simultaneously supporting the other two pillars of policy approaches and market mechanisms," said Herzberg.

Herzberg added that digital technology can really deliver tangible gains for energy businesses — and he referenced research conducted by Accenture and WEF that illustrated the reductions that are possible.

"Research by Accenture and the World Economic Forum shows that technological tools available today could deliver up to 20% of the reductions needed to hit the 2050 netzero trajectories laid out by the International Energy Agency (IEA) for the energy, materials and mobility industries. In a recent report by the IDA, just one subset of the industry – power – saw investment in digital technologies rise 13% in 2021 to \$55 billion after a slowdown in 2020, reaching around 18% of total investment in electricity grids," said Herzberg.

It has been well documented that data is the new oil.

Herzberg declared that the core of the new energy tech economy lies firmly in data.

"Data helps industrial businesses make informed decisions, optimise operations, and improve performance. When data collected from sensors and other production sources is contextualised with industry- and segmentspecific analytics and AI in the cloud, it supports the creation of a coherent digital thread spanning the entire value chain, including internal and external business units. This digital strand supports the discovery of patterns and anomalies, driving insights that can shift entire business models from reactive to proactive decisionmaking, boost efficiency and drive sustainability. In practical terms, fully digital capabilities

to design and optimise lead to decarbonised supply chains and reductions in fugitive emissions and carbon generated through industrial operations — all while increasing revenue," said Herzberg.

Like most industries there is always some form of resistance of change – but according to Herzberg, advanced technologies are already proving their worth and showing a ROI.

"From smart grids to predictive maintenance, digital technologies are enabling industrial enterprises to operate more efficiently, conserve energy across their operations, and find new routes to improved sustainability," said Herzberg.

Herzberg believes that the integration of data management can drive greater efficiency for the energy sector globally – but said having a metric for measurement was critical.

"As the adage goes, you can't fix what you don't measure. Efficiency is the biggest value play for businesses, but improvements aren't possible without measurement data. Information management systems - whether for engineering, operational and financial metrics – can provide easy access to real-time data, which industrial software programs can then convert into contextualised information quickly and effortlessly," said Herzberg.

Herzberg said the resulting visibility into plant operations can save millions of dollars while reducing resource use, and pointed to a project between AVEVA and DCP Midstream as an example of what savings can be achieved.

"Fortune 500 company DCP Midstream used AVEVA PI System over a five-year period to create a single view of operations, connect disparate systems, and give its workforce a single view of operations. Thanks to improved plant operations, DCP Midstream saved \$25 million in a single year," said Herzberg.

In terms of how to reduce emissions – the CEO of AVEVA believes that leveraging AI models is the best way forward.

"We're using AI in more ways than ever, with companies having doubled the average number of AI capabilities in use, from 1.9 in 2018 to 3.8 in 2022, McKinsey data shows. Beyond enterprise applications, AI and machine learning offer companies the opportunity to maintain existing energy supplies while lowering greenhouse emissions. In simple terms, AI-driven strategies offer a way to precisely estimate emissions levels and suggest ways to abate them through simulated models. The technology also helps monitor process optimisations, providing empirical evidence of emissions reductions," said Herzberg.

Herzberg is also a strong advocate of a shared-data approach to accelerate energy transition.

"As we look to bring about the energy transition, we will need to prioritise renewable energy solutions in ways that build new value streams. Sharing data with partners, suppliers, and customers, often in the cloud, enables renewable energy companies to manage and analyze large amounts of data and to optimise energy production, improve efficiency, and reduce costs. Moreover, connecting and scaling industrial data can also reveal new routes to generating value," said Herzberg.

He used Dominion Energy in the UAE as an example of what results can be yielded through the AVEVA System Platform.

"Dominion Energy in the USA uses AVEVA System Platform in combination with PI System to unify data from across their fleet of renewable power grids to manage intermittency and ensure optimal energy supplies to customers. With complete real-time operations data on their grid's performance in the cloud, Dominion has also been able to share this data to their utility customers, providing

world (including in the USA following last year's bipartisan Infrastructure Investment and Jobs Act) are prioritising and incentivising the use of tools to achieve zero-carbon operations while balancing securing energy needs. At the same time, advances in data collection, optimisation and information sharing are unlocking greater value and creating new routes to sustainable operations a phenomenon we call the connected industrial economy. AI, machine learning and cloud computing are already radically changing the way we do business, whether in terms of generating new insights or unlocking new ways of collaboration," said Herzberg.

Herzberg concluded a wonderful conversation by



As we look to bring about the energy transition, we will need to prioritise renewable energy solutions in ways that build new value streams."

them with a way of validating their ESG energy commitments. Dominion gained a competitive edge while achieving a 50% increase in speed to market while fewer greenhouse gases are released into the atmosphere," said Herzberg.

However, as highlighted and outlined at the beginning of the feature, Herzberg is adamant that a connected industrial economy holds the key to solving the energy trilemma.

"Despite short-term economic uncertainty, industries have a once-in-a-generation opportunity to unlock transformational value for the next few decades. Governments around the

reiterating how a data-centric approach is key to delivering a sustainable future for our planet.

"In a changing world, energy companies are responding by realigning their operations to take a digital, data-centric approach that can drive responsible use of the world's resources. This digital way of thinking is the only way for businesses to create long-term value for their stakeholders while juggling the requirements of ensuring equitable and affordable energy supplies with contributing to a sustainable future for the planet," said Herzberg.

ZEBRA TECHNOLOGIES

EMPOWERING THEON-DEMAND ECONOMY

CNME Editor Mark Forker managed to secure an exclusive interview with **Bill Burns**, CEO of Zebra Technologies, to learn more about his vision for the business, their entry into new areas of technology, the importance of a strong culture – and their efforts to be a global leader in sustainability.

technology leader with over 30 years of experience in the IT ecosystem.

He has enjoyed a decorated and distinguished career, one which has seen him hold senior executive positions at companies like Tellabs and

ill Burns is a global

Burns joined Zebra Technologies in 2015 – and was appointed as CEO in March of this year.

Spirent Communications.

His ascension to the top job at Zebra Technologies has been heralded by industry analysts as a 'safe bet' for the world leader in innovative and intelligent digital solutions to continue to thrive under his stewardship.

Burns kickstarted the conversation by outlining the vision of the company and how customers are leveraging their diverse portfolio of solutions to optimise and automate their operations.



"Zebra is empowering organisations to focus on what we see as the on-demand economy. Our vision is what we call enterprise asset intelligence, which we describe as essentially every asset and worker within the enterprise being visible, connected and fully optimised. How do you take the next best action within your business to really be as efficient and effective as you can be. 86% of the Fortune

500 companies globally are our customers. These customers are looking to digitise and automate their environments and they want to leverage our product portfolio to help them to do that," said Burns.

Burns highlighted how Zebra Technologies is powering the on-demand economy in industry verticals like retail and healthcare — and added that they have moved into new areas of technology.

"Our scanners are at the point of checkout in a supermarket, and our printers are being used for hospital wristbands to provide better healthcare services - and our devices are being used for pick and delivery of e-commerce orders. Most recently we have moved into some new technology areas beyond our core markets of mobile devices, printers and scanners into robotics and warehouse automation in the machine vision and retail software. All



of that together incorporates about a \$30 billion served market for Zebra," said Burns.

In terms of what informs their innovation roadmap and strategy, Burns said that they very much favour an approach of organic investment.

"Our first preference is an organic investment because we have strong relationships with our customers globally. We invest a lot of time to really understand the needs of our customers from all around the world. From retail to e-commerce through to transportation logistics, manufacturing, healthcare and government are all markets that we serve today.

Listening to a diverse set of customers and understanding what products, solutions, hardware and software to bring to market ultimately gives us better insights into what they are truly looking for," said Burns.

Our vision is what we call enterprise asset intelligence, which we describe as essentially every asset and worker within the enterprise being visible, connected and fully optimised."

The CEO of Zebra
Technologies said that
technology inflexion needs
to be married in with real
customer specific feedback into
Zebra – and said its investment
in R&D differentiates the
company from their market
competition.

"Today, we spend around 10% of our revenues on R&D, which is more than our competitors, and we do

that to primarily stay at the forefront of each one of these vertical markets that we serve. because we are a market leader in our core markets. We also leverage venture investments. For example, we will make a venture investment in a company to really understand more about what is happening in a particular market – and then look to either get rewarded financially through the outcome of someone else acquiring the company, or us possibly acquiring it, and we have done that with some of our software assets in the past," said Burns.

Burns said that time-to-market is how Zebra thinks about M&A, stating that it enhances their vision of enterprise asset intelligence.

"It is a place that is closely adjacent to what we do on our core portfolio of selling into the same customer base – and then leveraging M&A when we want to have a faster time-to-market, or scale faster into a new market that we find very interesting for Zebra. So, in summary, organic investment and voice to customer is first and foremost for us, but we also use venture investments and M&A as well as ways to effectively enter new markets," said Burns.

Burns highlighted the critical role played by their global channel partner ecosystem – and explained their sales strategy in what is a constantly evolving and at times complex digital economy.

"80% of our business globally is done through channel partners. Ultimately, our goal is to have strong relationships with our

customers. We're not just selling to IT at this point in time. We're selling to store operations, HR with workforce management software and loss prevention. We have a different group of personas across that customer base that allows us to leverage those relationships to sell multiple solutions into the same customer, because if 86% of Fortune 500 are our customers today, then what you want to do is grow your base of solutions into those customers," said Burns.

Burns said Zebra is a global leader in rugged mobile devices inside retail settings. He explained how their mobile devices and software empower workers on the shop floor.

"We have bought and acquired software assets to leverage that mobile device. So, think of that mobile device in the hands of a retail associate and leveraging those devices with our retail software. Workforce management software allows you to plan what worker you will need in the store - and enables you to schedule effectively, the task management software allows the manager to send out tasks in real-time to staff on the shop floor. Communication and collaboration software is critical, a lot of customers tell us that if a store's associates are an aisle away from each other then they might as well be a forest away from each other - the feedback we have received from them shows it's important they are connected with each other and engaged. If you're by yourself all day then that's not good, and you can quickly become disconnected.



In summary, our goal is to leverage that mobile device inside retail and then marry software assets on top of it to really drive better outcomes," said Burns.

There has been no significant shift in the direction of the company, or a structural realignment following Burns' appointment as CEO.

It's very much business as usual and he highlighted the importance of having a collaborative executive leadership team.

"We have a collaborative executive leadership team. I led the product solutions team, and I relied on a peer of mine to actually build the products, and relied on another peer of mine to market the products - and another peer to sell the products, so ultimately the

executive team is fully aligned as most technology companies are. Over the last 7 years we have always had an aligned strategy, especially since the Motorola Solutions' Enterprise acquisition, which took the company from a \$1 billion printing business to a \$3.5 billion printing, scanning and mobile computing business. Our primary focus is on our customers and partners – and as I said earlier 80% of our business goes through our partners, but they are also customers of ours as well. I think every business has had tough supply chain challenges over the last 18 months, but staying close to them and making sure we are hearing them is very important. When we look across our portfolio, it's all about executing and

MAY 2023





growing that portfolio and then expanding into new areas," said Burns.

Burns also referenced the importance of a strong culture in ensuring continued success.

"Talent and culture are very important – because you need the right people all around the world, and the best and brightest to be successful. We focus a lot in terms of innovating our culture, and to make sure we are an inclusive culture around the world. We are a diverse company because we are a truly global entity," said Burns.

Zebra Technologies is a real leader when it comes to sustainability and was recognised for their sustainability achievements by a report commissioned by the CDP.

Burns concluded a brilliant interview by outlining that sustainability was not only important to them as a company but also to their investors and customers.

"First and foremost, it's just the right thing to do. We started with the basics like recycling devices, and then we saw that not only do we care about these areas, but it became evident that our investors and our customers really cared about sustainability. We are engaged in a lot of initiatives that are designed to drive greater

Our goal is

Our goal is to leverage that mobile device inside retail and then marry software assets on top of it to really drive better outcomes."

sustainability. We looked at areas like packaging, and asked how can we do that better to reduce our wastage? How do we become more energy efficient – and what are the things that we can do to make things better across the globe? I think when we tally it all up, it's clear we are doing a lot, but the next challenge is how do you organise and report it all? How do you make it practical as opposed to having some sort of outlandish goal for the future that's probably not realistic? Our approach is practically making things better each and every day that ultimately supports the right thing to do and serves the best interests of our customers and investors and that's what we are aiming to do at Zebra," concluded Burns.

32

TRANSFORMING HEALTHCARE

Veronica Martin spoke to **Dr. Mohammed Al Shamsi**, Head of Technical Support at Emirates Health Services, to find out how he has transformed Emirates Health Services with his knowledge and expertise, the key skills he has gained by obtaining a PHD in blockchain technology - and his role as Chairman of the Ajman Youth Council.

an you give
our readers an
overview on
your roles and
responsibilities at
Emirates Health Services?

At Emirates Health Services, I am Head of Technical Support. I have been with the company for almost 12 years.

I started as a junior, worked in different departments, and then became the Head of Technical Support. I have done a PhD in computer science, specialized and focused in blockchain at the British University in Dubai.

Many of my projects have been successful, including the Head Quarter AV Project, where I achieved 50% savings as a result of my efforts.

You have enjoyed a phenomenal career in the IT profession, especially in terms of the healthcare sector, but can you tell us how you have leveraged your knowledge and expertise to transform Emirates Health Services?

Prior to joining Emirates
Health Services, I worked with the Ministry of Health, so my



exposure and experience in healthcare are quite extensive.

Besides, my experience allows me to bring a lot of expertise and decision-making skills. These skills are crucial daily, as I am the head of the department and we are responsible for IT operations of the hospitals under Emirates Health Services.

In addition to understanding what needs to be done and how to do it, I have a keen sense of timing.

You have recently attained a PHD in blockchain technology, can you tell us more about that process, and what are the key skills you have now gained by obtaining this unique qualification?

I started my PhD in 2019 to focus on research. Having attended many conferences, I was inspired by them to choose sustainability as the topic for my dissertation, and specifically how it impacts blockchain technology in higher education.

I have also published seven papers in various areas of healthcare, business, security, and blockchain. My dissertation has been distributed to seven universities and almost all surveys have positively evaluated my dissertation and the concept.

Blockchain has formed a key part of Dubai's Paperless Strategy, but some tech and IT analysts remain skeptical of the technology, however, from your perspective what are the key capabilities that Blockchain provides for those that implement and

adopt the technology - and how will it help to transform some of the services you provide at Emirates Health Services?

Blockchain replaces people, so they are resistant to this change, but this is the future and we need to accept this technology.

We have already implemented blockchain in Emirates Health Services and are encouraging people to use it.

Blockchain is creating an increased sense of security and reliability for users, which is very beneficial, since there's a lot of vulnerability around data protection."

Any revolutionary technology comes with resistance all the time. However, blockchain is creating an increased sense of security and reliability for users, which is very beneficial since there's a lot of vulnerability around data protection. The future of

What do you think are the biggest challenges and opportunities facing the healthcare sector in the UAE?

We have excellent services and specialists, but often send patients abroad to countries such as the USA or South Korea for treatments. This means we need to open specialized centers in the UAE, so people won't need to travel to other countries for specialized treatments.

Can you tell our readers more about your role as Chairman of the Ajman Youth Council entails?

We started the council in 2020 and I was chosen as the leader of Ajman Youth Council which has been a wonderful journey. I have represented the UAE in several conferences worldwide. I am grateful for this experience. I am thrilled to be paving a way and guiding the young fellow Emiratis in achieving excellence together.

Do you use your position as Chairman to encourage the next generation of Emiratis to pursue a career in IT and other STEM-related fields?

Certainly, yes. Like they say any position comes with responsibility. It is an absolute honor that I get to interact with the youth of our country and I hold myself accountable in carving their career trajectories in IT.

I hosted several events to bring the right exposure to our youth and showcase what the future holds for them in IT. I designed training programs in topics to teach the skills required to excel in our industry. The future of our youth looks promising, and we're just at the beginning.

I truly believe the words of wisdom quoted by His Highness Sheikh Mohammed bin Rashid Al Maktoum "The youth of the Emirates are the fuel of our renaissance. The youth of the Emirates are the guarantee of our future. The youth of the Emirates are the protectors of our home."

data security is blockchain undeniably.

OUR PURPOSE IS TO ENRICH THE LIVES OF OUR CUSTOMERS

CNME Editor Mark Forker speaks to SolarWinds CEO **Sudhakar Ramakrishna**, on his leadership style, the challenge of staying relevant, removing complexity, its purpose to enrich the lives of its customers – and the importance of humility in the face of adversity.

olarWinds
CEO Sudhakar
Ramakrishna is a
global technology
leader with over 25
years of experience in cloud,
mobility, networking and
security.

In a stellar career Ramakrishna has held senior roles at Motorola, Polycom and Citrix, and was the CEO of Pulse Secure.

He was appointed as
SolarWinds CEO in January 2021
— and under his tutelage the
software leader has bounced
back from one of the most
high-profile cyberattacks in
history, to be one of the most
secure software companies in
the world.

Ramakrishna has drawn acclaim from industry peers

for the outstanding leadership he has shown since taking the reign at SolarWinds – but how would he describe his own leadership style?

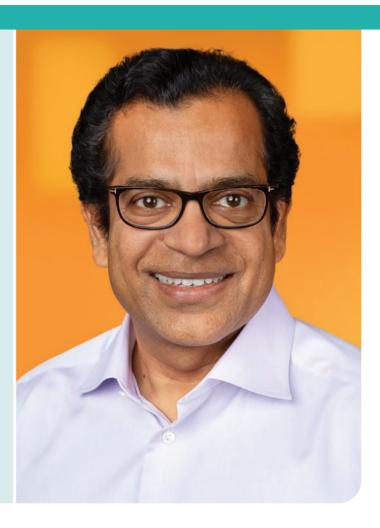
"I like to think of my leadership in two ways. Firstly, I am a situational leader, which essentially means you focus on what needs to be done. Secondly, I am a participative leader, which means it is not about you - it's about the entire team, organisation and community. Participative leadership is all about trying to get best out of everyone. I often say to my team that they should never worry about what they want to do, but instead worry about what needs to be done. As a leader it is always important to be conscious of what needs to get done, which

is the situational part — and you want to do it with, and through people and that's the participative part, and that's how I would largely describe my leadership style," said Ramakrishna.

Ramakrishna also added that not taking yourself too seriously and humility were other hugely important components required in a good leader.

"It's important to acknowledge that whilst you are running a very serious business, it's important not to take yourself too seriously, and that's the balance I've been trying to strike. I can be incredibly stubborn and rigid as well, because there are sometimes when you just don't have the time, instances

34



where you may have been thrown into a crisis and you just have to respond. There are times when there is no time for deliberations and you have to trust your gut. That's also where humility comes into play, because as confident as you may be about what you are doing, you also have to keep listening to see where your blind-spots are," said Ramakrishna.

SolarWinds serve 300,000 customers globally, and continually retain over 90% of them on an annual basis.

They are a hugely successful company, but with that success comes great responsibility – and the SolarWinds CEO highlighted the need to remain relevant in a constantly evolving digital economy.

77

In my role as **CEO**, I worry about two things, one is how do we stay relevant in the future – and how do we scale as a team and as a company."

"The customer base we have provides us with a great foundation, but as you can imagine the trust that they place in us also creates a great obligation for us to address their needs in today's digital economy, and in the future. People often ask me what keeps me up at night? In my role as CEO, I worry about two things, one is how do we stay

relevant in the future — and how do we scale as a team and as a company? When I say how do we stay relevant, what I essentially mean is, how do we serve the customer today, and anticipate their needs in the future — and build things that supports them and helps them succeed going forward? The scale part is internal, do you have the right people, skills, systems and tools and so on," said Ramakrishna.

Ramakrishna says it is evident that digital transformation will continue to accelerate across all industry verticals globally — but added that complexity is also growing at speed.

"You can now say that every business is a software business at some level, because in today's climate we are all using software. However, you can also see that complexity is growing rapidly in every business, due to cloud and other applications – and whilst budgets are increasing, they are not increasing in tandem with the complexity that they have to deal with," said Ramakrishna.

Ramakrishna said that from a vendor perspective the question is what are you going to do about it?

The SolarWinds CEO wrote a position paper internally for the company, which explained how they were going to go through this evolution.

"SolarWinds has a rich history of building simple solutions, but the simple solutions were predominantly focused around tools. The challenge from an innovation standpoint is can you address the complexity of this new age

simply? The other challenge was how do we help customers derive better value and focus on their value proposition. We said we were going to be the company that delivers the best time-to-value for our customer, often what happens is businesses buy enterprise software, and it could take anywhere from 6-18 months before they see a return from it. We don't want to put our customers through that and that's why we have an internal metric that says 90% of our customers that buy our software should get value out of it within 30 days. That's an aspirational goal, but I firmly believe that's what drives how we build solutions, how we behave, and operate," said Ramakrishna.

Ramakrishna said that in this complex multi-cloud application world it is critical that you help customers identify and predict issues better than any other vendor in the market in the fastest possible time?

"Our SolarWinds platform gives consistency in terms of user experiences and that drives simplicity — and agility from a business standpoint to anticipate customer needs and evolve it so we can stay relevant in the future," said Ramakrishna.

Ramakrishna said that he found customers really appreciate honesty, regardless of how blunt and direct that message might be.

"I have told some customers in unequivocal terms that if they continue down this trajectory of technology implementation then they will



become outdated. Sometimes we are very hesitant to say that to a customer, but if you say it with the right framework, context and intent I think they will value you much more. Our obligation isn't to wait for them to tell us what to do as it may be too late for them, so how do you predict and project issues they may face? You need to create an environment in which you are saying to them how about this, and how about that, so they reach a stage where they start saying tell me more about this, and that's how you really evolve your solutions faster to the market," said Ramakrishna.

Ramakrishna said that resistance to new technologies and the adoption of new solutions can be a challenge as some customers can suffer from what he described as inertia.

"Companies like SolarWinds always face what we call 'innovators dilemma' where one of our products becomes super successful, but we don't see the trends in the market growing, so we don't build the next version of it. However, customers have inertia as well in terms of this is working fine, so why would I move away from it and change it? Another factor is business risk and business economics, and then competency and trust in the sense of if I change this will it work? Can I trust the vendor that I am working with, is what they are delivering of high quality? All of these are real pragmatic factors. The multiplicated affect of these factors can cause businesses to drag out technology cycles," said Ramakrishna.

Ramakrishna said that the purpose of SolarWinds is to



Our SolarWinds platform gives consistency in terms of user experiences and that drives simplicity – and agility from a business standpoint to anticipate customer needs and evolve it so we can stay relevant in the future."

enrich the lives of the people that they serve.

"When I think about customers if I can improve their productivity through my solutions then I am enriching their lives. Productivity happens when we give them better time-to-value, better time to detect their issues, and better time to remediate. I

think the most exciting thing that we are doing internally is we are building a single platform that not only supports their current needs, but also equips them with the ability to be agile. If you ask do I know exactly what my customers need in 3-5 years then my answer is no. However, it doesn't matter because if I have this agility then I can evolve my platform to support their needs faster and better than any other vendor in the marketplace. That's what we are really excited about, because that's something that we have not done historically at SolarWinds, but I truly and sincerely believe that this is what the world needs as me move forward and we are focused on that," said Ramakrishna.

SolarWinds is now regarded as one of the most secure software companies in the world, which is a far cry from December 2020, when the company was victim to one of the most high-profile supply chain attacks.

But how have SolarWinds been able to recover from that?

"We are very fortunate to be in this position today compared to where we were just a few vears ago. It took a tremendous amount of work but I think the approach we took to the attack was different. When this sort of crisis occurs many companies focus too much on the PR aspects of it, which is important – but the first approach was let's be fully transparent about this, just tell the world what happened, what you know, and where we want to go. The primary reason for adopting that approach

is based on the fact that the people I care most about are my employees and my customers. My employees and customers deserve to know what do we know, and what we are doing about it. That's the transparency element of the response, the second component is urgency, which essentially means putting a plan together," said Ramakrishna.

Ramakrishna pointed to Secure by Design as being the key component in the company's recovery.

"SecureByDesign is a construct that I have used in the past, but I had not exercised it to the level that I had to exercise it here it at SolarWinds. SecureByDesign is something that I fundamentally believe in terms of how software should be built. The third piece of the jigsaw was collaboration. We collaborated with industry peers, governments and seek help when a crisis hits you like this. It's important to be humble, look for that help and share what you learn and that way the entire security ecosystem becomes stronger as a result. Communication is also critical and finally humility. There is no playbook for this, try something, it may succeed, it may not, but learn from it and try to improve. The entire organisation as I was stepping in was both tired and shellshocked from what happened. However, when you layout a framework for this they respond to it - and that's what really helped us through it, along with our loyal customers and partners who continued to work with us," said Ramakrishna.

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ISACA UAE & tahawultech.com jointly host the 1st Edition of "Infosec & Cybersecurity Congress 2023" on 07th June at The Westin Abu Dhabi Golf Resort & Spa.

The event brings together security decision makers, IT professionals and other security industry stakeholders to debate trends and examine the way forward amidst changing threat-security dynamics and increasingly complex and complicated attack patterns.

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ON A MISSION TO UNIFY

His Highness Sheikh Eng. Mohammed bin Hamad bin Al Sharqi,

Director of Fujairah e-Government Department, tells CNME Editor Mark Forker that it's their mission to unify all their government services into one digital hub in an effort to enhance and improve the lives of citizens in Fujairah.

THE MAIN MISSION
OF FUJAIRAH
E-GOVERNMENT
IS TO LITERALLY
UNIFY ALL OF THE
GOVERNMENT
SERVICES OF
FUJAIRAH INTO
ONE, SINGLE
DIGITAL HUB."

he Fujairah e-Government is on a mission of transformation.

Last year, the government entity signed a strategic partnership with unified communications leader Avaya, in a bid to revolutionise the way its citizens engaged, interacted and consumed government services.

The partnership with Avaya has allowed them to really usher in a new era of transformation and has allowed them to create a single point of contact for all government services.

In a candid interview with CNME, His Highness Sheikh Eng. Mohammed bin Hamad bin Al Sharqi, Director of Fujairah e-Government Department outlines how the communication platform has reimagined employee experience and is ultimately designed to enhance the lives of all citizens and residents in Fujairah.

What is the mission of your organization – and what defines everything that Fujairah E-Government does?

The main mission of Fujairah E-Government is to literally unify all of the government services of Fujairah into one, single digital hub.

That's the main vision. By doing this, we're making life for Fujairah residents easier

and better, with great increases in citizen happiness.

As a citizen, you can call a single number, and the government has all of your details, and can serve you extremely quickly and easily right away – no matter which government service you require.

It could be municipality, it could be free zone, it could be the airport.

As Fujairah e-Government, we can see all of the customer service KPIs across all of the government departments that are included in the initiative.

And with this information, we can control and improve the standard of the service being offered by any government department.

That's the main thing – improving the life of people living in Fujairah.

What makes your organization unique or differentiated?

What makes us successful is our culture.

The vision of HH is very clear in terms of what we want to achieve, and all of our departments are onboard with this vision.

We are all working to unify and we are all aligned that this initiative will improve the lives of citizens.

There's no need to have different applications for all the services we offer – we are a unified entity.



WE ARE ALL
WORKING TO UNIFY
AND WE ARE ALL
ALIGNED THAT
THIS INITIATIVE
WILL IMPROVE THE
LIVES OF CITIZENS."

What do your customers/residents expect of you?

They expect a seamless experience, a fast experience, and for government services to be easier to consume.

That's what we're working towards as we create this digital hub.

So, we're eliminating the need to visit

government departments in person, for example.

And we are trying to eliminate the need for multiple documents when taking government services.

With this hub, your identity is verified through the system, and all the documents required are already there.

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What technology challenges were you facing as you sought to achieve your organization goals?

One challenge was that every government department was using its own IT stack.

They would have CRM provided by one vendor, and communications provided by another.

And it was all different contracts, all operating in silos that didn't talk to each other

This is a challenge when it comes to the mission: It delivers a broken journey for the customer, and it makes it very difficult to target pain points and fix them properly.

Plus, it's a very legacy approach.

What brought on the need for the project with Avaya?

For Avaya, the first thing it was the call management. Before, each department had their own phone system.

So, the first thing we did was to unify every

government department and centralize them on Avava.

The second thing was building our main Fujairah government call center.

The third thing is the CRM. Before, everyone was using their own CRM, and we want all Fujairah departments to be using the same CRM, with the same integration into the unified contact center.

This enables us to deliver on that ambition of identifying the customer and serving them, no matter which service they want to consume.

What benefits and results do you expect to achieve in 5 years' time?

There are different objectives, but overall, we're leading the digital transformation of the Fujairah government so that we can provide the highest standard of living in Fujairah.

We don't want to make consuming government services something that people simply need to do – we want to make it a positive experience.

We care about the experience. And we're doing this through a unified, secure hub – built on a secure digital infrastructure that serves the needs of citizens.

What is the most innovative you are doing in the context of this project?

We also want to start implementing a proactive approach.

As an example, say you run a restaurant in Fujairah, and you need to renew your business licence

We'll be proactive and remind the owner that the renewal is coming, deliver that proactive government experience.

What is the next stage of your plan?

We're looking to go completely paperless.

We'll look to reduce the need for physical branches. And we're investing to bring more government services online through this hub.

It makes it easier to invest in Fujairah. All of this combined makes us a sustainable business and tourism destination.

And by extension, with this better experience, we're aiming to increase Fujairah government transactions and turnover.

نحو توحيد الخدمات الحكومية

قال الشيخ المهندس محمد بن حمد بن سيف الشرقي مدير دائرة الحكومة الإلكترونية في الفجيرة لمحرّر CNME مارك فوركر أن المهمّة الرئيسية للدائرة تتجسّد في توحيد جميع الخدمات الحكومية ضمن مركز رقمي واحد، سعيا لتعزيز وتحسين حياة المواطنين في الفجيرة.

تتمثّل المهمة الرئيسية الفجيرة الإلكترونية في توحيد جميع الخدمات الحكومية في الفجيرة بشكل كامل ضمن مركز رقمي

حكومة الفجيرة الإلكترونية ماضية في رحلة التحوّل الرقمي.

برسي. في العام الماضي، وقّعت حكومة الفجيرة الإلكترونية اتفاقية شراكة استراتيجية مع أقايا الرائدة في عالم الاتصالات الموحّدة، سعيا منها لإحداث ثورة في الطريقة التي يتفاعل من خلالها المواطنون مع الخدمات الحكومية، فضلا عن أسلوب حصولهم على الخدمات التي يطلبونها.

وقد أتاحت لهم الشراكة مع أقايا الدخول بشكل فعليّ إلى حقبة جديدة من التحوّل، وسمحت بإنشاء نقطة اتصال واحدة مخصّصة لجميع الخدمات الحكومية.

وفي المقابلة مع CNME، لخّص الشيخ المهندس محمد بن حمد بن سيف الشرقي مدير دائرة الحكومة الإلكترونية في الفجيرة الطريقة التي أعادت من خلالها منصة الاتصالات بناء تجربة عمل الموظفين، وكيف ساهم تصميم منصة الاتصالات بنهاية المطاف في تحسين حياة جميع المواطنين والمقيمين في الفجيرة.

ما هي المهمة الرئيسية لمؤسستكم، وما الذي يميّز النشاطات التي تنفّذها حكومة الفجيرة الإلكترونية؟

تتمثل المهمة الرئيسية لحكومة الفجيرة الإلكترونية بتوحيد جميع الخدمات الحكومية في الفجيرة بشكل كامل ضمن مركز رقمي واحد.

هذه هي الرؤية الرئيسية. ومن خلال القيام بذلك، نجعل حياة سكان الفجيرة أسهل وأفضل، ونتمكن من تحقيق ارتفاع كبير على مستوى مؤشر سعادة المواطن.

كمواطن، يمكنك الاتصال برقم واحد، وسيكون بإمكان الدوائر الحكومية التي تملك جميع التفاصيل المتعلقة بك خدمتك بسرعة وبسهولة على الفور، بغض النظر عن الخدمة الحكومية التي تحتاجها.

قد تكون بلدية، أو منطقة حرّة، أو مطار.

في حكومة الفجيرة الإلكترونية، يمكننا رصد ومتابعة جميع مؤشرات الأداء الرئيسية الخاصة بخدمة العملاء في جميع الإدارات الحكومية التي شملتها المبادرة. وباستخدام هذه المعلومات، يمكننا التحكم في مستوى الخدمة التي تقدمها أي دائرة حكومية وتحسينها.

هذا هو الهدف الرئيسي، تحسين حياة الناس الذين يعيشون في الفجيرة.

ما الذي يجعل مؤسستكم فريدة أو متميّزة؟

ثقافتنا هي التي تساهم في تحقيق نجاحنا. إن رؤية سموّه واضحة للغاية في ما يتعلق بما نريد تحقيقه، وجميع إداراتنا تنضوي تحت لواء هذه الرؤية. نعمل جميعا على توحيد الخدمات، ومتفقون على أن هذه المبادرة ستساهم بتحسين حياة المواطنين. ليست هناك حاجة إلى تطبيقات مختلفة للحصول على الخدمات التي نقدمها، إذ أننا نشكل كيانا موحّدا.

ما الذي يتوقعه العملاء/السكان منكم؟

إنهم يتوقعون تجربة استخدام سلسة وسريعة على مستوى الخدمات، وأن يكون التعامل بموضوع الخدمات الحكومية أكثر سهولة.

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44

نعمل جميعا على توحيد الخدمات ومتفقون على أن هذه المبادرة ستساهم في تحسين حياة المواطنين".

> وباستخدام هذا المركز الجديد، يتم التحقق من هويتك من خلال النظام، حيث تتوفر أيضا جميع المستندات المطلوبة.

ما هي التحديات التكنولوجية التي كنتم تواجهونها أثناء سعيكم لتحقيق أهداف مؤسستكم؟

واحدة من التحديات تمثّلت باستخدام كل دائرة حكومية لمنظومتها المعلوماتية الخاصة بها. هذا ما نعمل على تحقيقه بينما نؤسّس المركز الرقمي الجديد.

ومن خلال هذه الطريقة، نعفي المعنيين من عناء زيارة الدوائر الحكومية بشكل شخصي، وهذا على سبيل المثال لا الحصر لأن الفوائد أكبر بكثير.

ونحاول أيضا إلغاء الحاجة إلى مستندات متعدّدة عند التعامل مع الخدمات الحكومية.



الأمر الثاني تمثّل في بناء مركز الاتصال الرئيسي لحكومة الفجيرة.

الأمر الثالث هو نظام إدارة علاقات العملاء، إذ كان كل طرف يستخدم حلول إدارة علاقات العملاء الخاصة به، بينما أردنا بالمقابل من جميع الإدارات في الفجيرة استخدام حلول إدارة علاقات العملاء الموحّدة، وتحقيق التكامل ضمن مركز اتصال موحّد.

وهذا يمكّننا من تحقيق طموحاتنا المتمثلة في تحديد وتعريف العملاء وخدمتهم، بغض النظر عن الخدمة التي يرغبون في الحصول عليها.

ما هي الفوائد والنتائج التي تتوقعون تحقيقها في السنوات الخمسة المقبلة؟

هناك أهداف مختلفة، ولكن بشكل عام، نحن نقود التحوّل الرقمي لحكومة الفجيرة، كي نتمكن من توفير أعلى مستوى للمعيشة.

لا نريد أن يكون الحصول على الخدمات الحكومية أمرا تحتاج الناس إلى فعله فقط لأنها مضطرة إلى ذلك، نريده أن يشكل تجربة إيجابية لكل الناس.

نحن نهتم بتجربة الحصول على الخدمات. ونقوم بذلك من خلال مركز آمن موحّد، ومبني على بنية تحتية رقمية آمنة تلبى احتياجات المواطنين.

ما هو الجانب الأكثر إبداعا في ما تقومون به، خصوصا في سياق تنفيذ هذا المشروع؟

نريد البدء بتنفيذ نهج ومقاربة استباقية لكل نشاطاتنا. على سبيل المثال، لنفترض أنك تدير مطعما في الفجيرة، وتحتاج إلى تجديد رخصة عملك.

سنعمل بشكل إستباقي ونبادر إلى تذكير المالك باقتراب تاريخ تجديد الرخصة، وسنقدم هذه التجربة الحكومية الاستباقية في عالم الخدمات.

ما هي المرحلة التالية في خطتكم؟

نحن نتطلع إلى الاستغناء عن الورق بشكل كليّ. نتطلع أيضا إلى تقليل الحاجة إلى فروع الدوائر الحكومية. ونواصل الاستثمار لتوفير المزيد من الخدمات الحكومية عبر الانترنت اعتمادا على المركز الجديد.

هذه المقاربة تسهّل الاستثمار في الفجيرة. وكل مبادراتنا مجتمعة تركز على جعل الفجيرة وجهة مُستدامة للأعمال والسياحة.

وبطبيعة الحال، مع تحقيق تجارب استخدام أفضل، نستهدف رفع مستوى نشاط معاملات حكومة الفجيرة وعوائدها. **ههه** إذ قد يكون لديهم مزوّد خاص لحلول إدارة علاقات العملاء ومزوّد آخر لحلول الاتصالات.

كانت كل العقود مختلفة، والجميع يعمل في ما يشبه "الجُزر" المنعزلة التي لا تستطيع التفاعل مع غيرها. لقد شكل ذلك تحديا خصوصا عندما يتعلق الأمر بمهمتنا الرئيسية، فهو تسبّب باضرابات وتقطّع في رحلة التحوّل لدى العميل، وأدى ذلك إلى زيادة المصاعب خصوصا عندما نريد حلّ المشاكل أو معالجتها بشكل صحيح.

فضلا عن أن هذا الواقع كان مستندا إلى نهج قديم للغاية.

كيف نشأت الحاجة إلى المشروع مع أڤايا؟

بالنسبة إلى العلاقة مع أڤايا، أهم دافع للتعاون معها كان إدارة الاتصالات. في السابق، كان لكل قسم نظام اتصالات خاص به.

لذلك، أول شيء فعلناه كان توحيد طريقة عمل كل دائرة حكومية وجعلها مركزية من خلال أنظمة أڤايا.

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VERTICAL FUTURE

MAN VS FOOD

CNME Editor Mark Forker secured an exclusive interview with Jamie Burrows, co-founder and CEO of Vertical Future, to learn more about how the technology created and deployed by the UK-based vertical farming technology company can tackle global concerns around food and water security.

amie Burrows spent the best part of a decade working in the healthcare and life sciences industry. He has worked for the Department of Health in the UK, and prior to that role worked for Deloitte and spent 4 years in the Air Force.

However, by 2016, the entrepreneur had decided the time was now right to go out on his own and establish his own vertical farming company, Vertical Future.

"I have always been interested in human health. I think one of the most interesting aspects of vertical farming, or controlledenvironment agriculture (CEA) is the fact that it is not only about improving planetary health, but is also very much focused on human health. It's a technology and crop science driven sector, so you essentially can't have one without the other," said Burrows.

Burrows revealed that the company had very little capital at its inception, and were very much a 'boot strap' company when they launched in 2016.

"When we formed Vertical Future in 2016, I funded it myself. However, I then used the business – with a bank debenture over everything I owned. We ran a small vertical farm in London for the first couple of years, and built up a strong customer base, and then over the last four years we began to focus on the technology. The reason behind our decision to focus on technology is over the last 10-15 years, we have seen massive growth in vertical farming in general, predominantly driven by the US market, despite the fact that vertical farming has been around in different forms for around a century or more," said Burrows.

Burrows said a lot of this new growth in vertical farming had been driven by concerns around food and water security, and the fact that governments globally were pursing the new carbon agenda, ESG - and a real desire to reduce their dependence on imported food which would see a significant reduction in food miles.

"Vertical farming can eliminate all of the above issues, by simply controlling

the environment in which you grow your crops, and applying the correct technology and integrating it with crop science in an effort to bring about different expressions in plants. One really basic example is using and selecting different wavelengths of an LED light throughout the course of a crops lifecycle to bring about different outcomes corresponding to the two different metabolisms of a plant. All plants are different, and some want different things at different stages of growth, just like a human. Vertical Future can control all of these factors, but if you're growing outside, or in a greenhouse then you can't, because quite simply you don't have the technology, and you're dealing with all these variables which you have absolutely no control over," said Burrows.

Burrows believes that the vertical farming sector is one industry where you can really see that technology is dealing with all the huge socioeconomic, macro-economic,

Since moving into the technology side of things in 2019, we've designed, built, commercialised, manufactured, and

deployed eight vertical farms across the UK." my assets as leverage and pretty much went all at it for

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and global issues currently facing all of us, and highlighted their increased focus on technology over the last four years.

"Since moving into the technology side of things in 2019, we've designed, built, commercialised, manufactured, and deployed eight vertical farms across the UK. In terms of the Middle East region, we're moving in there because we firmly believe that it is one of the regions globally that is going to need the most amount of input with this type of technology. The way I attempt to explain this to investors is to convey to them that this is a sector that is going to require significant capital investment in the short-medium term, by literally pumping billions into new infrastructure, like they

are already doing in the Middle East, with projects like NEOM," said Burrows.

Burrows declared that the way you improve the productivity of the asset moving forward will be done through data.

"We've set up our model in a way where we go and build vertical farms for customers. We collect data from every single process in every farm that we build, and we centrally compile that data, analyse it, anonymise it, and then create new growing algorithms that we commercialise, sell, or share across the network. The data that we get from these farms creates a really exciting opportunity for advancements in crop science — and we've already seen that happen during our 7-year life as a company," said Burrows.

Burrows also highlighted the key role played by its SaaS platform called DIANA.

"We have a software-as-aservice platform called DIANA, which effectively connects all

We have a software-as-a-service platform called DIANA, which effectively connects all the farms and provides us with information on all the growing and automation algorithms on each individual farm – as well as feeding each farm with our own data."

the farms and provides us with information on all the growing and automation algorithms on each individual farm. We barcode and track everything, so we can determine everything that is happening from seed to plate, what has happened to a crop, what type of seed is being used, and what growing algorithm has been used, and all of that is centralised through our platform DIANA," said Burrows.

Burrows claimed that Vertical Future are only really at the beginning of figuring out what to do with all the data they are generating, and how they commercialise it.

In addition to this, he highlighted some of the seismic projects they are involved in that were garnered through the awarding of grants.

"We have won a lot of national and international grants from bodies such as Innovate UK, and that has enabled us to tap into the collaboration that you get from those relationships with businesses and institutions. We currently have one project in Australia, where we are working with NASA and a number of leading academic institutions, and the 2020 Nobel Prize Winner for gene editing in crops, and these partnerships are actually focused on space. Essentially, what we are trying to determine is how do we design these systems so that they can be used in space, and then we take all the outcomes of these projects, and evaluate what we have learned, and what we can do to improve things back here in the UK," said Burrows.

Burrows said it was a very exciting time for the company, and revealed that the company raised £22.5m last year, and have recently started another significant raise, some of which has already been raised. He said one of the key differentiators of Vertical Future compared to other players in the market was the fact that they weren't a 'grower brand' and has a fully horizontally and vertically-integrated model, aligning with customer demands.

"We are not really a grower brand, in a sector where there are a lot of them. They make their money from buying farms and technology and then grow produce to sell to the marketplace, but we are very, very technology-focused. We have a very different business model, and typically, when we build our farms, we would have different types of finance and funders that will come in and fund under an SPV structure because there is a huge interest in this sector. It has drawn a lot similarities with the interest that was in solar energy

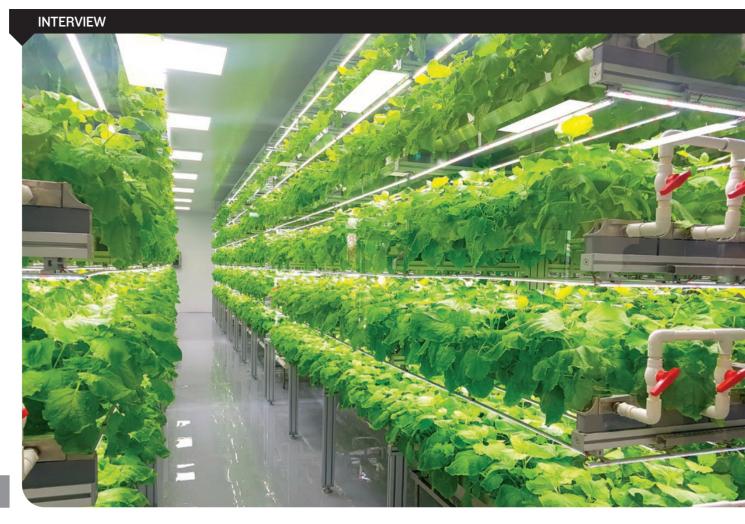
around 10 years ago. Despite the instability in the market, there is still a real demand and interest from investors to invest in this sector, because they know it is a long-term asset that has to be invested in because we need food and water security," said Burrows.

Burrows believes that Vertical Future have a very unique and different vertical farming system to its market competition.

"There are no systems in the market that have tried to automate the entire process but at the same time many competitors are very selective about the definition 'end to end'. There are no vertical farms that track as much data, or have fully integrated an in-house software solution within their technologies. We definitely have a couple of competitors globally, but we refer to them with the exception of one as systems integrators. They do have some propriety in terms of intellectual property, but what they do is source different



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components from different companies bundle them together and say this is our product. However, the problem with that is in order for a vertical farm to be very efficient and be able to deliver on price parity with cheap foreign imports then you need a technically efficient process of the product in every area," said Burrows.

However, Burrows was critical of the business model pursued by systems integrators.

"We have seen during this huge growth curve a lot of companies buying from system integrators in the US, behaving like tech companies, and attaching a huge valuation despite the fact they have tiny revenues, and many of them go bust. However, some of them are also too big to fail now due to the scale of investment they

received," said Burrows.

There is a saying in business that timing is everything – and Burrows believe they have got their timing spot on.

"We are in this phase now where we believe we have timed it perfectly because we did the growing, and we are unique in the sense that we are a technology company, but we also have a lot of growing and operating experience that we can translate to our customers. We have learnt from all of the issues of what I would describe as the first-generation technologies of the last 10 years," said Burrows.

One other key differentiating factor according to Burrows is their ability to manufacture their own systems which gives them full control over their supply chain.

"We have everything in-house from a horizontal standpoint in terms of intellectual property and our systems, but we are also now almost fully vertically integrated, and we manufacture our systems as well with the exception of LEDs. We have manufacturing facilities in North London, and we are working with one of the sovereign wealth funds in the MENA region to open a manufacturing hub there as well to service our projects across the Middle East. Being able to manufacture in-house means we control the supply chain, and this is another huge market advantage for us because there is so much disruption in the current global supply chain," concluded Burrows.

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