

Atos

Pioneer of a sustainable global health system

DIGITAL REPORT 2021



IN ASSOCIATION WITH:

DELLTechnologies





Pioneer of a *sustainable* global health system

Atos, powered by Dell Technologies, is connecting the dots in healthcare IT to make digital transformation a reality for patients and providers

Atos, together with strategic partners such as Dell Technologies, is connecting the dots in healthcare IT, making digital transformation a reality for patients and across the healthcare and life sciences ecosystem. “This is a once-in-a-generation opportunity,” says Adam Lewis, Global CTO, Healthcare and Life Sciences at Atos.

Lewis, who has been at Atos since 2014, comments, “Now that organisations are forced to think differently, we are witnessing a tectonic shift in investment and innovation. We are proud to have supported many organisations since before the beginning of this global crisis.” “Our vision is of a world with a sustainable high-quality health system, where all people have the right to enjoy good health and wellbeing. But this is a challenge. The pandemic notwithstanding, changing demographics, such as a growing and aging population, are putting huge pressure on care systems, capacity and affordability.

“Along with our partners, we believe that technology can contribute to solving that problem. We can improve healthcare systems, productivity and efficiency. But most importantly we can change the approach to healthcare, enabling the move from treatment to prevention, and from illness to wellbeing.

“That’s our mission: to work with healthcare providers, payers and life science organisations to build healthcare systems that keep people healthy. We want to do that by helping to predict and prevent illness, with more personalised precision and connected care.”

Describing himself as an architect-of-change, Adam is a Distinguished Expert and Member of the Scientific Community at Atos, and at the forefront of the company’s digital transformation as it partners with Dell Technologies to drive a sustainable future.

Speaking from his office in London, he points out that digital transformation is crucial to enabling the shift from reactive treatments to wellness across the whole population, both within and increasingly outside of hospital or laboratory settings.

“We have a unique opportunity with technologies that have emerged over the last few years to do something fundamentally different,” says Lewis. “At Atos, we are committed to helping our customers to create a positive impact on patient outcomes, employee experiences, cost efficiency and effectiveness. And this will positively transform the future of healthcare and life sciences.

“We are investing in our portfolio of services to support this transformation. And we are working closely with very smart subject-matter experts, inside Atos and with



Adam Lewis,
Global Chief
Technology Officer



our partners, to develop the building blocks to enable our customers to innovate in a sustainable way.”

Atos, which is the European number one in cybersecurity, cloud and high-performance computing, provides end-to-end orchestrated hybrid cloud, big data, business applications and digital workplace solutions and is committed to securing a decarbonised digital future.

The company’s history spans a century, from the creation of the first tabulating machine by Fredrik Rosing Bull in 1919 to its most recent success enabling the most digitally connected Olympic and Paralympic Games at Tokyo 2020, with its sights now set on Paris 2024.

Digital hospitals of the future

As Lewis reflects on Atos’ success with the Olympic Games, renowned for its motto *Citius, Altius, Fortius* (faster, higher, stronger), which could easily translate to Atos’ mission

and culture. “Atos has been working with global and local healthcare providers for many years. The skills, insights and knowledge we gained means we’ve been able to support organisations like the NHS in the UK since the start of the pandemic, rapidly standing-up service desks in support of the ‘pop up’ Nightingale Hospitals for example.”

Lewis returns to how the company is working in the healthcare arena and starting to shape the digital hospitals of the future. “Right now, organisations around the world are upgrading and expanding hospitals while thinking about what the smart hospital of the future will look like. The patient experience is about to change for the better. In addition to treatment rooms, you might have booths where clinicians can conduct telehealth sessions. Next to central hospitals, the setup of satellite outpatient facilities is in progress. The power of having in place the right networks, connectivity, security and storage will change the future of care forever.”

So, what will hospitals look like in five years and how are Atos meeting those needs today?

According to Lewis, Atos is putting in place capabilities for telehealth and remote patient monitoring. “We are working with emerging technologies such as Artificial Intelligence (AI), deep learning, mixed and virtual reality to see how they can support patients at home rather than in hospital. For example, for post-operative rehabilitation, AI-enabled smartphone apps to accelerate disease recovery.

“Arguably, the pandemic has forced many industries to understand the benefits of change. Healthcare was perhaps too secure using processes, techniques and tools from the past, and unable to embrace new technologies or see the broader opportunities ahead. We have seen that when you have access to the right skills, technologies and the correct data, you can transform the simplest of ways in which a patient engages.

“What’s more, the way we can crunch data at scale will enable the earlier understanding of disease; this also applies to emerging microbial and virus variants. By being able to model and understand protein structures, as part of vaccine production, scientists can investigate how potential vaccines or drugs



**“We work together
to stand apart”**

ADAM LEWIS
GLOBAL CHIEF
TECHNOLOGY OFFICER,
Atos

ADAM LEWIS



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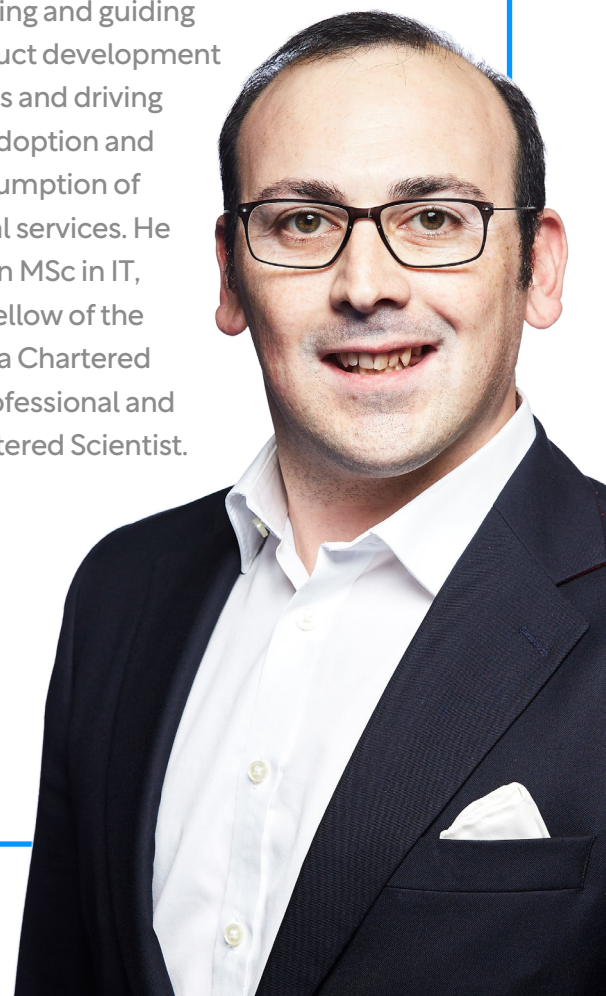


An internationally recognised executive and CTO with a passion for technology, Adam Lewis has global responsibility for technology & innovation strategy, delivering Industry-leading solutions and services for healthcare and life sciences customers.

Lewis has more than 20 years’ experience in client-facing roles across many sectors, including healthcare, life sciences, financial services, central government, transport and manufacturing.

He has a track record in leading innovation and strategy initiatives, building and guiding product development teams and driving the adoption and consumption of digital services. He has an MSc in IT, is a Fellow of the BCS, a Chartered IT Professional and Chartered Scientist.

EXECUTIVE BIO



Atos

Transforming healthcare and life sciences

Innovate faster and build competitive advantage with a new approach to digital solutions from Atos and Dell Technologies



Innovation

We accelerate innovation that is aligned with solving our customers challenges.

Seamlessness

We work as one, with a focus on essential interoperability for the health ecosystems of the future.

Resilience

Scalable, secure, high-performance building blocks, from edge to core to cloud.

Connecting people and data across the healthcare and life sciences ecosystem to enable smart, secure and sustainable health and wellness for all.

Spanning over a decade, Atos' alliance with Dell Technologies is one of the most enduring and largest collaborations, giving our clients a digital advantage

in line with their requirements and strategy. Together, we provide world-leading solutions with best-in-class integrated services. From smart hospitals and electronic medical records, to cybersecurity and digital workplace, our combined experience, expertise and solutions can help deliver value. A proven and trusted partnership you can rely on.

Learn more

interact with disease. These advances in technology have accelerated the pace of R&D to levels not possible five years ago. It's amazing to think about the advances they could bring within 10 years."

What is precision medicine?

One area in which Atos is working with Dell Technologies is exploring how they can together help to push new boundaries in precision medicine.

"In many ways we already have the building blocks for precision medicine: connectivity, secure data sharing, compute processing at the edge and in the cloud. Enabling precision healthcare requires the ability to derive information from multiple data sources such as large imaging datasets, streaming data from medical devices and data held in shared patient records. We can then leverage the technological advances, tools and techniques in areas such as AI and machine learning (ML). We are enabling the amalgamation of 'big data' and 'streaming data' with smart data layers that allow us to combine data from a multitude of devices, such as the smart-watch to the most sophisticated medical imaging systems," says Lewis.

"This is one of the reasons why precision healthcare is being accelerated. It's all about making sure you've got access to the right data; and it's about capturing that data and ingesting it in a way that gives certainty around accuracy, privacy and security.

"By working with Dell Technologies, we can now architect platforms based on smart data fabrics that can be leveraged across the ecosystem. This includes a focus on the customer experience; for example, clinicians can use secure mobile apps to get early notification about changes in people's conditions. The future of precision



healthcare is incredibly exciting and we are only at the start of the journey."

How will AI transform healthcare?

In 2020, Atos set up its HPC, AI and Quantum Life Sciences Centre of Excellence at the Wellcome Genome Campus near Cambridge. "At the Centre, we are focused on collaborations and investment to explore how advanced technologies can address specific medical conditions and support patients, clinicians and specialists in a way that delivers better healthcare outcomes," says Lewis.

"One example is the detection of skin cancer. We can use AI and ML to look at the images captured from a patient's mobile phone or modern derma-scopes, protect the privacy of the images, and build models and algorithms to provide



earlier diagnosis, which will go on to potentially save many lives.”

Data-driven insights on population health

When it comes to population health, Lewis points to data-driven technologies such as wearable devices that record a patient’s heartbeat, oxygen levels and sleep patterns.

“One of our teams in North America worked closely with a healthcare provider to monitor sleep apnoea. By using wearable devices, you can monitor people living in communities; you can track them in their sleep and feedback that data directly to physicians for assessment and review. This can apply to chronic or long-term conditions, such as diabetes, cardiovascular conditions and even asthma. You need data and secure connectivity to do it; and you need accuracy in interpreting the results and security in the way they are recorded.



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GLOBAL CHIEF
TECHNOLOGY OFFICER,
Atos



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“In this way, we’re very excited not only to introduce new technologies, but also to pivot more traditional technologies so that healthcare providers can get outcomes faster without having to do a massive digital transformation.”

Trusted partner for the Olympic and Paralympic Games

When it comes to cybersecurity, Lewis acknowledges the threat landscape is changing rapidly, which is why Atos has built the capabilities and tools for a rapid response to any security breach. He highlights Atos’ relationship with the Olympic Movement as a trusted IT partner for more than 20 years.

Tokyo 2020 was the first summer Olympic Games fully delivered over the cloud, for example. As lead technology integrator, Atos migrated all critical systems to the cloud, limiting the environmental footprint; the company is now building the replicable model for Paris 2024.

“Cybersecurity attacks are evolving rapidly and automated in a way that wasn’t possible a few years ago,” says Adam. He points out that the Games are one of the most high-profile events in the world and Atos can report that there have been zero security incidents since the partnership began.

“While ransomware attacks are not slowing down, working with the right partners and with the advanced proactive

“Customers demand integrated cloud solutions that are consistent, flexible and focused on business outcomes”

DENISE MILLARD
SVP,
DELL TECHNOLOGIES

Atos OneCloud is a joint strategic offering to support organizations developing smart strategies to modernise their apps and processes. This includes the collective capabilities and portfolios of Dell Technologies, VMware and Atos.

Building the platform that its customers need to solve their business, technical and financial challenges on their journey to the hybrid-cloud, Atos’ new approach focuses on four pillars:

Atos DIGITAL HYBRID CLOUD

Scalable, secure and innovative private cloud solution which allows organizations to run both legacy and cloud-native applications on one single platform, across both private and public environments. It combines industry-leading hardware and software from Dell EMC and VMware to bring together traditional platforms and the new world of DevOps.

APPLICATION TRANSFORMATION AND MODERNIZATION

Armed with the VMware Tanzu portfolio running on Dell EMC VxRail, Atos’ experts

analyze existing estates, recommend modernization strategies, and deploy agile applications to any digital cloud platform powered by Atos’ Digital Hybrid Cloud solution. Benefitting from up to 66% faster development lifecycle and up to 300% increase in developer productivity at lower costs.

KUBERNETES-AS-A-SERVICE (KAAS)

Powered by Atos’ Digital Hybrid Cloud, Atos KaaS not only provides the enterprise digital cloud platform for application modernization initiatives, but it gives DevSecOps the ability to build, run, and manage Kubernetes workloads with ease. Customers can enjoy the efficiencies of private and public cloud and use up to 35% less IT resources.

Atos CLOUD FINANCIAL MANAGEMENT

Provides enterprises a complete, unobstructed view of their cloud estates’ utilization and cost. These capabilities utilize CloudHealth by VMware and further extend to include advisory services to optimize cloud resources that can help reduce cloud spend.

“Customers demand integrated cloud solutions that are consistent, flexible and focused on business outcomes,” said Denise Millard, SVP, Global Alliances at Dell Technologies. “Building on the strength of the Dell Technologies and Atos portfolios, this solution enables customers to execute on their cloud transformation journey by implementing platforms that support their competitive strategies and bring together IT infrastructure in simple, cost-effective ways.”



monitoring services, we can identify threats at a very early stage. As a result, we can take additional precautions and reduce or remove any risk or associated impact. The recognition that we've earned in the security domain is significant; yet we will continue to grow and innovate relentlessly in this space. It's great to be recognized as the number one in Europe for managed security services and hopefully soon, number one in the world.

"We have recently teamed up with Dell Technologies to create a new cyber recovery service. We do this by creating a 'safe vault' for our customer's data, which provides protection from the impact of hostile security events.

"If, for example, there's a zero-day exploit, which has not been seen beforehand, that manages to find its way to our customers' systems, working with Dell Technologies and our cyber recovery

services, we can rapidly re-enable those services. This means that customers can minimise business impacts that would otherwise be so significant and costly, both financially and reputationally.

"More broadly, as we look at the dynamics of change across the world, together with priorities such as sustainability and climate action, we bring all these things together through our focus on secure decarbonized digital transformation. We are continuously looking at how we can ensure and secure global technology landscapes while improving the quality of experience for our customers, their customers and employees, and wider society."

"Companies won't be judged on the way they handle the actual attack. They'll be judged on the speed of recovery."

Christina Oldroyd, Global Marketing and Sales, Dell Technologies

10 OFFERINGS OF Atos ONECLOUD

- Industry specific consultancy services to develop cloud business solutions at scale
- Multi-cloud orchestration across private and public to maximize application migration and portability, lower operational costs, and ensure cloud interoperability
 - Highly standardized and automated management framework and architecture
 - Next generation private and sovereign cloud platform, ready to be deployed and managed in any data centre
- Cloud application development and modernisation/re-platforming
- Cloud AI and ML to enhance business processes, create new solutions and monetise enterprise data
- Bare Metal solutions (high processing capabilities servers) to support non-virtualised business critical applications adjacent to the cloud, to increase the breadth of consumabl
 - Cloud edge and far edge solutions (local/field servers) combined with new 5G connectivity
 - Cybersecurity supervision services
- Decarbonisation offerings guaranteeing year on year carbon footprint reduction of cloud infrastructure, data and applications

Atos and Dell Technologies

“We work together to stand apart” is how Atos sees its 12-year relationship with Dell Technologies.

This strategic partnership has enabled Atos to accelerate the recently launched Atos OneCloud suite of services, lowering the barrier to entry to cloud and digital while providing a proven framework across 10 key areas. Atos OneCloud enables organisations to navigate and accelerate their digital journey, whatever their digital maturity. Atos OneCloud is known for the way it connects business-critical applications and harmonises data in a code-free and intuitive manner.

“We've cultivated the right relationships with global strategic partners, and Dell Technologies is at the forefront of those. We've been on a journey together to transform the future of application landscapes and we share the same vision. When we have an R&D-to-R&D relationship and sponsorship from top down,





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as we have with Dell, we can focus and put the customer at the forefront of our thinking. That means we do portfolio alignment, including co-innovation around hybrid cloud and cybersecurity.”

Lewis points out that this extends to setting a vision of vertical services, which includes supporting Electronic Patient Record (EPR) systems from early implementation and throughout their lifespan, including new industry integrations and new interoperability demands.


Focus on sustainability with Dell Technologies

Atos is pushing the boundaries of scientific and technical excellence to ensure the future extends to carbon-neutrality for its own organisation, and for customers and partners.

“Both Atos and our customers will be measured on the way we make investments,” explains Lewis. “It’s our job to provide leadership, working with partners like Dell Technologies, to maximise the potential of existing assets, extending the natural lifespan so we can make technology more sustainable, including by recycling.

“There’s a tremendous opportunity to drive sustainability via digital. It is recognised that the healthcare provider industry alone makes up 4.4% of global emissions. We take that seriously and we need to be looking at how we can address this and transform. This could include using new chip sets that reduce the power consumption, and making more agile and flexible designs which can grow naturally with the organisation. That also means accelerating the journey to public clouds and using the right cloud providers.

“It’s a fantastic time to be involved in the industry and at the centre of those discussions. If we can harness and hone just some of the momentum, the possibilities will be endless.”

In a rapidly changing world, Atos and Dell Technologies are working to ensure that healthcare customers can thrive in a safe, secure and sustainable environment. “We are on the cusp of change and want to seize the opportunity,” concludes Lewis. 



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POWERED BY:

