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HEALTHCARE UNITED ARAB EMIRATES PURSHEALTH

# Securing AI to clear a path to safe healthcare innovation

Healthcare network PureHealth collaborates with Dell Technologies to safeguard its digital assets and pursue AI-powered transformations with confidence.

#### **Business needs**

PureHealth realized that it was critical to ensure the security of patient data, intellectual property and AI models in order to innovate healthcare without undue risk.

#### **Business results**

- SOC handles at least 100,000 security events per second and up to 500 incidents per day in the Dell Powered Security Operations Center created by PureHealth and Dell
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Safeguards patient data, intellectual property and AI models to enable confident innovation.

Provides a secure infrastructure for Al-accelerated diagnostics and care.

Enables GenAl apps and services to help patients manage their well-being.

Streamlines administrative and operational processes.

#### Solutions at a glance

- Dell Professional Services
- Dell PowerEdge Servers

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By automating everyday processes, healthcare providers can reduce administrative workloads and allocate more time and resources to patient care.

# Advancing healthcare to extend human possibility

By advancing the science of longevity, PureHealth introduces the healthcare of the future from the United Arab Emirates to the rest of the world. PureHealth is the largest healthcare group in the Middle East. With over 100 hospitals, more than 300 clinics, multiple diagnostic centers, pharmacies, health insurance solutions and other lines of business, its groundbreaking innovations are at the forefront of healthcare as the company is on a mission to unlock time for humankind.

PureHealth aims to design patients' journeys to help them live longer, healthier, happier and fuller lives. This goal also drives PureHealth's technology initiatives such as its extensive collaboration with Dell Technologies to drive innovation fueled by Al. Junaid Khan, group chief technology officer at PureHealth, explains, "By partnering with Dell Technologies, PureHealth pioneers intelligent healthcare decision-making, advances health research and patient care, upgrades the patient experience and improves people's well-being."

## Ensuring the security of patient data and AI innovation

As PureHealth manages high volumes of sensitive patient data, the group's initial step in realizing its AI strategy was collaborating with Dell Technologies to fully secure data and infrastructures. Nabeel Amjad, executive director of cybersecurity and infrastructure at PureCS, the organization's technology services group, adds, "We are proud of the fact that our roadmap aligns with the holistic view of Dell Technologies of AI on premises, in the cloud and at the edge. With help from Dell Professional Services, we can unify all these technologies."

#### Unleashing Al-infused healthcare innovation with stringent data protection

"Al is fundamental to our focus on longevity and our ability to recommend healthier practices to patients," Amjad points out. "In turn, we have to make sure that data and technologies are secure so we can serve patients effectively. Safeguarding patient data is not only a legal requirement but also an ethical obligation and a critical component of maintaining trust, protecting patient privacy and upholding the integrity of a health provider's services."

Previously, PureHealth collaborated with Dell Technologies to build the infrastructure for the UAE Health Information Exchange. More recently, PureHealth engaged with Dell Professional Services to design and implement a security strategy focused on resiliency and reducing risk. "Dell Professional Services worked hand in hand with us to execute our innovative vision," says Amjad. "What we love about the interactions with them is that they're not jumping to solutions quickly but taking the time to understand our concerns."

# Unified approach to advanced cybersecurity

In under eight months, the two partners built the Dell Powered Security Operations Center (SOC), which PureCS and Dell Technologies manage jointly. With continuous threat hunting and data intelligence, it can handle more than 100,000 security events per second and responds to as many as 500 incidents per day. PureHealth is already planning to expand the SOC's capacity as it grows into other regions. "The SOC is not only a monitoring center functioning as our eyes and ears; it is an opportunity for us to reimagine cybersecurity, our security posture and the way we work. It allows us to converge our entire security into a unified fabric, which enables us to watch what's going on and respond to the emerging threats that we are facing all the time," Amjad explains. "The SOC plays a critical role in creating a safe environment for innovation by managing cybersecurity risks, promoting secure development practices, monitoring emerging threats, facilitating incident responses, promoting security awareness, ensuring compliance and continuously improving security capabilities."

By augmenting the SOC, Dell Technologies continues to support PureHealth with security services including penetration testing and breach attack simulation, tabletop exercises and red/blue team tests. Dell Incident Recovery Retainer Service and cyber recovery capabilities further improve the organization's cyber resilience.



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**Junaid Khan,** Group Chief Technology Officer, PureHealth

#### Open road for AI transformations

With the assurance of world-class security, PureHealth pursues a robust plan to deploy AI-powered healthcare innovations. Khan says, "AI-powered systems can enable earlier detection and better treatment outcomes by analyzing medical images – such as X-rays, MRIs and CT scans – and detecting patterns or anomalies that may not be immediately apparent to human observers." AI will be invaluable in accelerating diagnoses and care. "AI is transforming clinical imaging reviews," Khan adds. "It can detect a cancer in stage one, whereas a radiologist might not be able to do so for three months."

# Freeing up time for patients by bringing AI to data

Generative AI (GenAI) allows caregivers to translate data from clinical records, patient histories, and life sciences research into better care outcomes and then deliver them quickly. "PureHealth harnesses GenAI technologies to redefine healthcare delivery and challenge lifespans, thereby future-proofing healthcare and driving the next wave of innovation," Khan describes. "From an operational point of view, GenAI can streamline tasks such as scheduling appointments, processing medical claims and managing electronic health records. By automating these processes, healthcare providers can reduce administrative workloads and allocate more time and resources to patient care."

# Boosting the health of individuals and communities

PureHealth will continue to partner with Dell Technologies to advance highly secure AI innovation, accelerating genomics research and the building of digital twins to model the health trajectories of individuals and population segments. "Our strategic utilization of Dell cutting-edge technologies will positively impact the well-being of communities and ensure the provision of optimal healthcare services," says Khan.

Patients will be able to use <u>Pura</u>, an Al-powered smartphone app, to monitor their health, receive individualized self-care recommendations and access care. Amjad concludes, "With fully secure Al, we can swiftly analyze extensive healthcare datasets, allowing us to customize digital products like Pura to meet local needs efficiently."

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> Junaid Khan, Group Chief Technology Officer, PureHealth

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