The Saudi Arabian Ministry of Health (MoH) runs the country's public healthcare service, which consists of thousands of hospitals, clinics and health centers. It also handles infection prevention and control, including COVID-19 vaccinations and records, and the testing and monitoring of visitors entering the country.

Industry
Healthcare

Strategic priorities
• Multi-Cloud

VMware footprint
• VMware® Cloud Foundation™
    • VMware vSAN™
    • VMware NSX® Data Center™
    • VMware vRealize® Suite

• VMware vCenter®

• VMware HCX™

• VMware vSphere®

Saudi Arabian Ministry of Health Digitally Transforms with VMware

The Saudi Arabian Ministry of Health (MoH) embraces a multi-cloud approach with VMware, boosting its ability to deliver healthcare and launch innovative new services. To meet the growing demand for healthcare services in Saudi Arabia and help boost efficiency and agility for the provision of services, the MoH needed to simplify and modernize its IT systems. It decided to do this by moving to a unified, multi-cloud strategy with VMware, with all workloads under one umbrella creating the ability to offer innovative IT services to healthcare across the country. This move was in line with the Saudi Vision 2030 goal to develop an integrated health system based on both individuals and society.

Enabling transformation
The Ministry of Health is committed to the transformation of Saudi Arabia's healthcare sector. Under this plan, most of the major cities will have a "healthcare city"—a dedicated zone with large hospitals, specialist health centers, clinics and pharmacies to serve residents.

> "The Ministry of Health IT department knew that it needed to simplify and unify its systems to enable the rapid provision of cloud-based services to healthcare providers across the country."
>
> Eng. Khalid Almedbel, CIO, Saudi Arabian Ministry of Health

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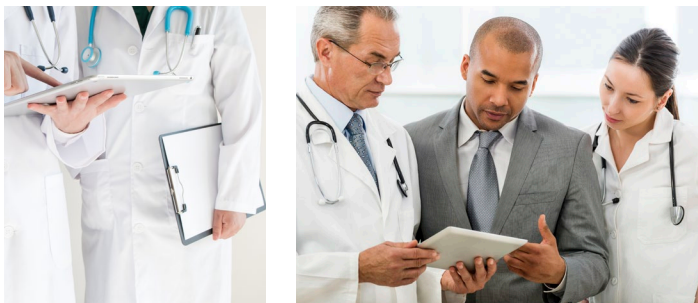
Taming complexity

With technology taking an increasingly central role in healthcare, MoH wanted to transform its IT systems to increase efficiency and agility, enabling it to offer secure, innovative, cloud-based IT services to all public healthcare providers and facilities across the country. This would empower the healthcare sector to improve its delivery of care by massively boosting efficiency, saving valuable resources and giving healthcare providers the flexibility to grow and innovate.

To achieve these goals, the MoH IT department knew it needed to simplify and unify its systems to enable healthcare providers across the country to have immediate and unrestricted access to cloud-based services.

Embracing cloud for resilience and innovation

The MoH decided to spread its IT workloads across various cloud service providers—including telecom operators STC and Mobily—and unify everything under the VMware Cloud Foundation hybrid cloud platform. This resilience allowed workloads to be moved instantly between providers while giving the MoH IT team visibility of—and the ability to manage—workloads from a single pane of glass.

This solution also futureproofs the network, enabling the IT team to add new locations such as private clouds which can be easily integrated into the multi-cloud layer and controlled from the same portal.

The deployment of VMware Cloud Foundation includes VMware NSX Data Center as the platform for building the secure virtual cloud network; VMware vRealize Suite as the cloud management solution to provide automation, operations, log analytics and lifecycle management on-premises; and VMware vSAN to reduce storage complexity and cost. The deployment also includes VMware vCenter to gain visibility across the hybrid cloud from a single console and VMware vSphere to enable MoH to develop and deploy modern applications from the cloud. The organization also used VMware HCX to help streamline application migration, workload rebalancing and business continuity across the environment.

> "Health clusters and hospitals are now able to gain rapid access to all types of IT services from an intuitive service menu. This enables easy access to IT resources, from new email accounts to backup services, virtualization and security."
>
> Eng. Khalid Almedbel, CIO, Saudi Arabian Ministry of Health

Achieving flexibility

With the full VMware Cloud Foundation stack deployed, Saudi Arabia's entire public healthcare system is set to benefit from the resiliency, agility and efficiency created by the shared cloud platform. Each healthcare facility will save valuable resources by having access to virtual infrastructure, storage, machines and as-a-service applications from the Ministry of Health. They will also be able to design and deploy applications from the cloud, giving them the freedom to innovate and provide stellar services to patients.

By having a unified cloud system, doctors, nurses and patients will have reliable and secure access to patient records wherever they are. All healthcare professionals, including hospital managers, will have improved access to the data they need, without worrying about potentially disruptive IT outages.

By making more efficient use of resources, the project aligns with Saudi Vision 2030, which aims to preserve budgets and help protect the environment by reducing energy consumption and the need for physical hardware.

"As Saudi Arabia's population continues to grow—and demand for world-class healthcare intensifies—this project with VMware has ensured that the MoH and the country's healthcare providers are prepared for the future with the ability to innovate and deliver healthcare for the 21st century," says Almedbel.

> "This project with VMware has ensured that the Ministry of Health and the country's healthcare providers are prepared for the future with the ability to innovate and deliver healthcare for the 21st century."
>
> Eng. Khalid Almedbel, CIO, Saudi Arabian Ministry of Health

Eng. Khalid Almedbel, CIO, explains: "Health clusters and hospitals are now able to gain rapid access to all types of IT services from an intuitive service menu. This enables easy access to IT resources, from new email accounts to backup services, virtualization and security. All departments have gained agility, mobility and can achieve a faster response to business requirements, which will elevate healthcare in Saudi Arabia."

Solutions fit for the future

MoH and VMware continue to move additional workloads onto the new environment, and more IT resources will be made available for healthcare facilities to access and use via their IT admin portals.

In the coming months, the MoH is planning to deploy more VMware solutions including VMware Carbon Black Cloud™ for additional cybersecurity, VMware Workspace ONE® for secure distributed working, and VMware Tanzu® to enable Kubernetes on vSphere, which will speed additional application development capabilities to Saudi Arabia's public healthcare providers.

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