

# HMG Solutions Cloud Solutions

Cloud Solutions has long established itself as one of HMG's pivotal units. In 2023, it elevated its status as the lynchpin of the Group's network infrastructure through a series of new products, projects and partners. It also expanded its reach to more clients across diverse locations, culminating in outstanding performance.

Pioneering connectivity has become an essential tool in today's healthcare industry. The demand for effective communication, dependability and broad access significantly influences patient wellness. Streamlined doctor-patient communication is essential for expanding healthcare accessibility. As a key regional player in network engineering and deploying crucial components such as tele-health and remote monitoring solutions, Cloud Solutions not only delivered cutting-edge technology, but it also expanded options for its use and implementation.

Throughout 2023, Cloud Solutions achieved significant milestones, surpassing both financial and operational benchmarks. By maintaining its exemplary record of delivering commercial targets and

expanding its market footprint, Cloud Solutions continued to increase its contribution to improving patient healthcare while reducing operational costs.

As Cloud Solutions expanded its reach across the Kingdom in 2023, it became the only Saudi company to own local intellectual property rights to cover all health organizations' needs. In recognition of its cutting-edge system and solutions, crafted with local expertise, and having a significant impact on healthcare sector in the Middle East, Cloud Solutions was named the Best Digital Transformation Healthtech Company in Saudi Arabia 2023 by *International Finance*, a premium business and finance magazine published by UK's International Finance Publications Limited.

While Saudi Arabia remains the focal point of its operations, Cloud Solutions continued to explore other markets. In line with its strategy to broaden its global footprint, the company is reinforcing its international presence from its established regional offices in Dubai and Manama, along with research and development branches in Colombo and Bangalore. Cloud Solutions participated through its offices in numerous conferences and events including in West Africa, Europe and China.

As healthcare increasingly relies on the latest available technology, there is a greater need than ever to optimize digital transformation and AI. Cloud Solutions not only embraced pioneering innovation, but it also adapted and refined its potential to serve HMG's requirements for the benefit of its patients, people and process-driven operations.

## Cloud Solutions Presence



**24**

Completed projects

**23**

Ongoing projects

**4**

Sytems acquisitions

**36**

Partners

**28**

Clients





## HMG Solutions Cloud Solutions (Continued)

Cloud Solutions is at the forefront of introducing AI and Internet of Things (IoT) capabilities for the healthcare industry, providing greater knowledge resources and accessibility to support and empower all of the Group's clinical and non-clinical departments.

Advanced Technology Operation and Management System (ATOMS), one of the highlights of 2023, is an essential assets management system that streamlines the maintenance of HMG's healthcare equipment and facilities. In its primary role as a safeguard for critical assets, the system ensures they are available when patients require them and tracks the maintenance schedule for devices already in use.

In building its IoT capabilities, Cloud Solutions introduced a selection of new wireless products to the market, including infrared thermometers, blood glucose monitors, body fat scales, fingertip oximeters, ECG monitors and spirometers. As well as being portable and self-administered, the results can be uploaded to the cloud and relayed in real time to the relevant physicians.

In addition, Cloud Solutions integrated the new Council of Health Insurance (CHI) policies into our VIDA health information platform, and further integrated NPHIES, the national health information exchange platform, designed to unify patient care records for healthcare providers and optimize insurance services.

As AI embeds itself into the DNA of healthcare, the introduction of Cloud Solutions' clinical AI engine offers a number of patient and physician services, including generating medical reports and health summaries, as well as a call center available for patients to cross-check their symptoms with possible diagnosis.

The 2023 upgrade of Cloud Solutions' VIDA health records system will have positive implications across the Kingdom's healthcare industry. As the most widely used locally developed electronic health database in Saudi Arabia, VIDA currently operates across 57 sites.

Cloud Solutions' four new systems acquisitions during the year consisted of an ERP system, asset management system, radiology information system (RIS) and picture archive and communication system (PACS) as well as a tele-radiology system, illustrating its fundamental role in both clinical and non-clinical functions.

In terms of contributions to HMG's overall operations, several projects were launched, including e-Pharmacies as part of digital business, sourcing implementation for purchasing, web chatting for HR and digital billing systems for invoicing. As the need for departmental connectivity continues to escalate, Cloud Solutions implemented the tools, along with providing cross platform accessibility.

As Cloud Solutions expanded its world-class products and services portfolio, it inevitably extended its network of clients and partnerships, adding to the major technology, network and healthcare companies that continue to reap the enormous rewards of their association.

Among the esteemed new clients are King Faisal Specialist Hospital and King Fahad Medical City. Cloud Solutions entered into partnerships with end-to-end security solutions company, Avigilon, ZKR Nurse Call Systems, Lenovo and Lunit, a company at the forefront of developing AI to detect the early stages of cancer and optimize treatment.

### Cloud Solutions in 2024

Recognizing the transformative potential of AI and IoT in healthcare, Cloud Solutions aims to harness AI algorithms and IoT devices to enhance healthcare efficiency, accuracy and accessibility. Leveraging advanced analytics and machine learning, Cloud Solutions will empower providers with actionable insight for informed decisions and personalized care.

Additionally, Cloud Solutions is dedicated to revolutionizing the patient journey by streamlining processes, reducing administrative burdens and enabling remote healthcare services. Through innovative solutions, patients will be able to actively participate in their care, receiving high-quality services at home for better health outcomes.

### Launching Innovative Products



Building AI engine capabilities



Queuing system



Building IoT capabilities





## HMG Solutions

# MD Labs

Celebrating nine years of resounding successes at HMG, our Medical Diagnostic Laboratories arm (MD Lab) delivered an exceptional year of operational results, worthy of its milestone anniversary. Supervising and managing 19 satellite labs and processing more than 12.5 million tests was a remarkable feat, demonstrating its value to the HMG healthcare system and the well-being of the community.

Its successes in lab testing accuracy and turnaround times – combined with additional investment in new technology – have kept MD Lab at the forefront of the Kingdom’s leading laboratories.

Driven by a focus on screening, examining and testing in specialized fields, as well as a significant increase in its previous scope, MD Lab conducted more than 12.5 million tests, an increase of 16.5% over the previous year. MD Lab consistently conserves resources and maximizes its efficiency in terms of both human capital and expenditure, optimizing staff efficiency and reducing reagent cost. This results in financial solidity and operational expansion, with the addition of highly sophisticated in-house testing and better supplier rates, through negotiation.

In terms of human resources, MD Lab achieved a staff satisfaction rate of 8.3/10, reinforcing its unwavering commitment to human capital development.

MD Lab’s progress and drive for excellence was highlighted through several other key initiatives, including the enhancement of the sample turnaround time (STAT) program, the phlebotomy reassessment program and the Top 10 in-house program.

KPIs were not only met, but substantially surpassed, most notably in terms of the volume of tests performed, with more than 99% accuracy.

Many of its KPIs were assisted by MD Lab’s investment in additional technology and automation to improve the efficiency of its

operations by reducing turnaround time for test results and improving overall customer service. These contributing key factors enhanced its reputation of dependability, unwavering commitment to quality and relentless pursuit of innovation.

As a testament to its consistent standards of excellence, MD Lab achieved landmark recognition in 2023. For the sixth consecutive year, the company received reaccreditation from the prestigious College of American Pathologists (CAP) and Association for the Advancement of Blood and Biotherapies (AABB) for both its clinical laboratories and blood banks. This rigorous accreditation signifies MD Lab’s uncompromising commitment to the highest standards of safety and quality in serving its patients.

### Driving Innovation and Sustainability

As a progressive and forward-thinking facility, the laboratory is constantly engaging with clinical staff to familiarize them with operations. In 2023, MD Lab provided training to HMG staff on how to order tests and interpret results, helping employees to provide better care to patients and improve the overall efficiency of the hospital.

Newly recruited nurses were trained for upcoming projects to prepare them for point-of-care tests, which provide patients with faster and more convenient access to their results. In addition, a new business department was established to increase physicians’ awareness of offered services, educating them about the tests available at MD Lab and how to order them.

With a solid history of social and environmental responsibility, MD Lab actively engages in community outreach and innovative initiatives, including World Blood Donor Day, which was celebrated at HMG Takhassusi Hospital in 2023. MD Lab led the way in organizing nine blood donation campaigns across Riyadh city, raising awareness and bolstering blood

supply through community engagement. Partnering with the National Association for the Blind (Kafeef), HMG launched a pioneering Braille blood donation form, providing greater access for visually impaired individuals in Saudi Arabia to donate blood. The form will be implemented across HMG hospitals and blood donation centers, empowering blind or partially sighted members of the community to contribute to this essential cause. MD Lab also demonstrated its commitment to social responsibility by supporting a clothing donation campaign for Ehtwaa, one of Saudi Arabia’s most respected non-profit organization.

MD Lab’s dedication to excellence in healthcare and its deep-rooted values of serving the community reflect its commitment to social responsibility and its unwavering contribution to the people of Saudi Arabia.

### Products and Initiatives Highlights in 2023:

- Renal pathology services
- Metabolomics for advanced newborn screening (NBS)
- Phlebotomy re-assessment program
- Digitalization of relaying critical result
- Using Indexor program for tracking transported samples, and improving TAT
- Microbiology total lab automation
- Automated clinical decision support (CDS) solution
- Additional 32 unique tests
- Re-introduction of human leukocyte antigens (HLA)

### MD Lab in 2024

MD Lab remains steadfast in its investment in employees and technology, recognizing that these are the essential pillars of its success. In 2024, we will continue to set new benchmarks in both our operations and our financial achievements, with a commitment to provide the most effective services to the patients, the physicians and the Group.



**12.5m**

**Samples**  
(16.5% improvement)



**8.3**

**Staff satisfaction**



**8.9**

**Customer satisfaction**



**99.4%**

**Test accuracy**



**97.6%**

**Turnaround time**  
(achievement of target)



## HMG Solutions

# Home Healthcare Company

Delivering essential care to patients in need within the comfort of their own homes, the Group's Home Healthcare Company (HHC) continued to offer increasingly advanced medical services and products in 2023. Through a series of initiatives, innovations and partnerships, HHC brought extended treatments, more accurate diagnoses and additional self-administered medication.

With unrivalled healthcare services, HHC is unique in terms of the breadth and depth of its expertise and cutting-edge technology. The highly qualified, multi-specialty physicians and medical staff with more than 20 years' experience in the field, apply their consummate skills across a range of disciplines tailored to meet the needs of housebound patients.

Using the most advanced medical technology, HHC staff is able to perform many of the clinical duties, which previously needed hospital attendance. With access to the smart health record system and Home Healthcare services in the HMG app, all communication and contact is registered on a central network.

### Collaborations and Initiatives

As part of HHC's strategy to strengthen its services and deliver greater benefits, the company entered into an agreement with an insurance company to provide services to its clients who have been recently discharged from hospitals.

The collaboration involved the provision of post-acute care transition (PACT), where patients with severe health issues were discharged from hospital but required continuous further care. The introduction of PACT combines the advantage of fewer resources for HMG and greater comfort for the patients, who can receive the same level of care in their own environment.

The program alleviates the pressures on bed spaces, while providing home-transitioned patients with the support of highly qualified medical personnel.

In another key initiative, HHC recognized that a major barrier in discharging children patients was their ability to eat and drink without medical assistance. In order to combat malnutrition, the company introduced total parental nutrition (TPN).

This potentially lifesaving treatment involves an intravenous formula to provide the majority of essential nutrients required by the body when a patient cannot consume food orally. In 2024, HHC will extend TPN to all age groups.

HHC reinforced its position as a vital support system to home-based patients with several initiatives in 2023, including Energizers IV infusion, a combination of electrolytes, fluids, vitamins and antioxidants to combat low energy levels. In addition, HHC launched delivery services for pharmacy products and vitamin supplements to complement existing treatment and encourage healthy living and general well-being.

### HHC in 2024

Next year, in a vitally important step for cancer sufferers, HHC will provide oncology services as part of palliative care, including chemotherapy. This initiative will provide enormous comfort to the vast majority of patients who would prefer to receive treatment in the familiar, comforting surroundings of their own homes.

As HHC continues to maximize its technology capabilities, a mobile lab unit will enable the teams to conduct multitude of laboratory tests at home and have immediate access to the results. In addition, the new tele-health system is designed to remotely monitor vital signs and deliver other health data directly to hospital physicians in real time.

Also in 2024, HHC aims to enhance its contributions to HMG by establishing strategic partnerships with other private health insurers, complementing the recent signed agreement.

# Flow Medical Company

Flow Medical Company, the Group's trailblazing engineering, technical subsidiary and partner, cemented a year of outstanding achievements with innovative products and long-term strategic partnerships to strengthen HMG's progressive healthcare services and significantly expand its customer base.

In line with its solid reputation as a pioneer in integrated medical technology management and turnkey solutions, Flow focused on various initiatives, adapting to the unparalleled pace of healthcare evolution. Its introduction of the modular solutions, remote enterprise asset life cycle management app ensured HMG continues to develop world-class medical facilities.

With its comprehensive healthcare technology management services, Flow Medical Company achieves cost-effectiveness at optimal quality with minimal risks, continuously monitoring key metrics to measure its strategic success and progress.

### Design and Implementation

Flow's dedication to fostering HMG's hospital portfolio through a meticulously crafted range of strategies applied to its future expansion hospital projects in Riyadh, Jeddah, Qassim and Kharj. Its passion for future healthcare ecosystems and cutting-edge medical technologies has meant that Flow committed more than 54,000 project management hours in 2023 to achieve its goals.

With its pioneering approach to engineering, Flow brought the conceptual ideas of HMG's medical centers to life, incorporating the innovative designs throughout implementation in the newly opened medical centers in Digital City, Al Narjis and Al Ghadeer. Its masterplan recognizes the different needs for each

facility and the importance of their long-term development to rival the region's leading medical organizations.

### Invention and Innovation

Following the announcement of our collaboration last year, Flow Medical Company and IK Medical Solutions GmbH officially sealed the agreement during Arab Health Expo 2023. As a result, both companies launched Healet, custom-made comprehensive modular solutions for the Kingdom's healthcare facilities.

Healet, designed and developed in Saudi Arabia and produced in Germany, provides state-of-the-art healthcare technology solutions, an elevated healing environment for patients and highly practical working environment for medical staff, while providing maximum safety and sterility.

Healet solutions consists of Healet Patient Rooms, Healet Laboratory, Healet Modular Solutions, Healet Patient Experience, which were implemented in newly launched HMG medical centers and ongoing hospital projects.

In another major breakthrough, Flow Medical Company and Cloud Solutions celebrated the launch of the beta addition of ATOMS on iOS and Android. The app is a user-friendly enterprise asset management software designed to help healthcare providers to manage the Medical Technology 360 lifecycle effectively.

ATOMS tracks and monitors the utilization of medical equipment, manages inventories and services line contracts, and generates customizable reports and analytics.

The app also provides powerful tools to support preventive maintenance programs and streamlines asset repairs, ensuring the highest level of service. Healthcare professionals and medical technology management staff can ensure the safe and efficient use of medical equipment, consolidating patient care and satisfaction.

### Flow in 2024

In alignment with Vision 2030, Flow Medical Company will continue to build sustainable, reliable and expandable managed equipment services (MES) capabilities, a PPP model, which offers hospitals long-term access to modern health infrastructure, equipment and services.

Ultimately, Flow Medical Company overriding goal for the future is to assist healthcare providers across the Kingdom in making informed technology investments in the appropriate areas, at the right time, while connecting people and processes to pave a faster and efficient road to a healthcare system built on value.





## HMG Solutions

# Taswyat Management Company

Taswyat leverages advanced technology with offerings that oversee the entire RCM process. This encompasses managing tasks such as insurance contracting, setting prices, mapping services, appointment scheduling, patient registration, obtaining approvals, coding diagnoses, billing management, as well as overseeing the collection and settlement stages.

Equipped with cutting-edge technology and a broad team of skilled, licensed clinicians from various fields, Taswyat analyzes operational, medical and financial data to optimize process efficiency across the Group.

