

# The State of Digital Identity in the Middle East

REPORT

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## INTRODUCTION

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Between 2023 and 2030, the digital economy in the Middle East will grow by a factor of five to be worth around half a trillion US dollars<sup>1</sup>. The sectors expected to drive this massive digital expansion include fintech, edtech and e-commerce.

The Middle East and Africa biometrics market is expected to catapult ahead at a 21.25% CAGR over the forecast period of 2019–2027. Biometrics in the cloud is a major trend in this market. Several banks and financial institutions in the Middle East have adopted biometric technologies. The major trend in the market is biometrics in the cloud, which is increasingly being adopted by traditional and non-traditional sectors.

Source: <https://inkwoodresearch.com/reports/middle-east-africa-biometrics-market/>

The increasing adoption of biometric technology in the Middle East has critical implications for regional developments in business, governance, and society. Observers and stakeholders have noted the potential for such tools to streamline security infrastructure and provide opportunities for sectors as diverse as mobile payment and financial security. Today, more and more public services in the region are being delivered online. In the Gulf Cooperation Council (GCC), for instance, most countries have digital-government programmes and are investing billions to transform delivery and offer key services online, through apps and other digital channels.

What all these initiatives have in common, is that they rely on being able to quickly, securely and accurately identify customers or service users. Only by doing this well, can digital platforms – whether commercial or public – command the trust and deliver the service required to build the user acceptance and daily active user counts by which success is commonly defined.

In this paper, we take a tour of the state of digital identity and biometrics adoption in the Middle East and in four key markets – Saudi Arabia, the UAE, Qatar and Egypt – in particular.

We consider why digital identity is increasingly important for commercial and public organisations in the region. And we look at how adopting digital-identity and biometric technologies can help organisations in the region make a deeper connection with users, improve their user experience and grow faster.

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1. <https://www.arabianbusiness.com/industries/technology/middle-east-digital-economy-to-hit-500bn-in-2023>

## BIOMETRICS IN THE MIDDLE EAST: KEY VERTICALS

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As has been clear when considering individual countries, immigration and law enforcement in this region have been important early adopters of digital identity and biometrics. This is unsurprising in a region with significant annual population movements.

In Saudi Arabia alone, more than two million pilgrims enter the country each year to perform the Hajj<sup>2</sup>. In the wider region, there are at least 30 million migrant workers, millions of whom cross borders every year<sup>3</sup>.

Intelligent, accurate and seamless identification and authentication at the border is key to enabling these movements – vital for human and economic reasons – while also helping to prevent crimes such as terrorism, smuggling and human trafficking. Given this reality, it seems certain that we'll see increased investment in biometrics and digital identity by Middle Eastern border and law enforcement authorities.

Equally, all the countries covered in this report have a digital-society programme, the local equivalent of Saudi Arabia's well-known Vision 2030. These envision the digital transformation of public-service provision. This cannot happen without seamless digital identification and authentication, making the public sector another area of growth in the next decade.

Beyond these areas in which biometrics and digital-identity technologies are already established, these are the areas in which Facephi expects to see significant growth:

### FINANCE

The region combines high concentrations of high-net-worth individuals, who demand maximum security and convenience, with up to 85 million unbanked workers, almost all of whom now have smartphones and want to pay digitally<sup>4</sup>. To give both groups the service they require, seamless digital identity technologies are a must. Recent examples of biometrics in financial services include Lebanese payments processor Areeba adopting fingerprint technology and Qatar National Bank introducing iris recognition at its ATMs.

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2. <https://www.statista.com/statistics/617696/saudi-arabia-total-hajj-pilgrims>

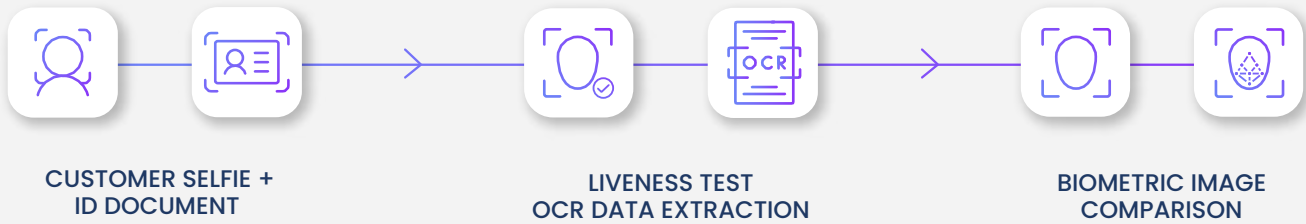
3. <https://mena.iom.int/news/iom-launches-its-first-strategy-gulf-countries-2021-2024-focusing-migration-governance-mobility-and-resilience>

4. <https://fastcompany.com/technology/millions-in-the-middle-east-are-unbanked-can-fintech-platforms-change-that>

USE CASE EXAMPLES

CUSTOMER IDENTITY VERIFICATION

Streamline compliant KYC and onboarding quickly and securely, remotely or on-prem. With AI-driven biometric technology, remote customer identity verification takes only seconds. The customer takes a selfie and captures an approved form of ID on the app.

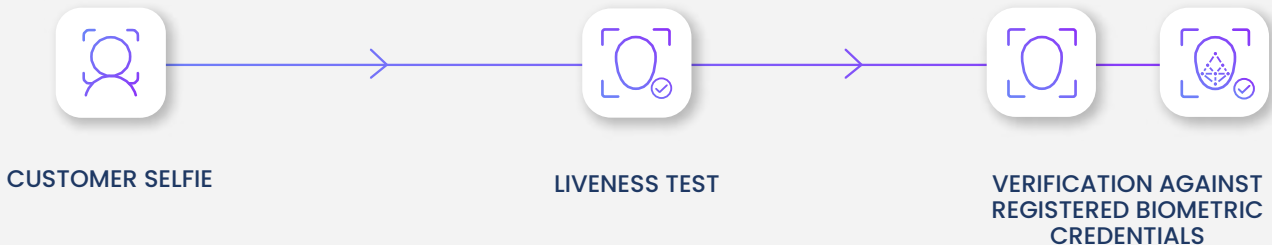


Passive Liveness determines whether the customer is a live person and present, countering any risk of synthetic fraud or spoofing attempts. Real-time OCR technology extracts data from the captured ID document. A matching algorithm then compares the selfie of the customer to the photo on the ID document. In addition, real-time AML screening, age verification, geolocation, ID document verification, and cross-checking against third-party databases can be set. The results are displayed in seconds. The customer gets a quick and seamless onboarding experience while the business gets the assurance of the genuine legitimate customer, audit and compliance records, and protection against fraud and money laundering with robust KYC and AML processes in place. In addition, it reduces the time and cost involved in onboarding new customers by replacing inefficient manual workloads while adhering to compliance and security.

AUTHENTICATION AT ATMS

Facial recognition technology at ATMs, as seen with CaixaBank, revolutionises transactions and cash withdrawals by eliminating the need for PIN codes.

The customer's face is captured with an ATM camera. A passive liveness check is automatically performed for strong anti-spoofing protection. The image is compared to the stored biometric credentials to enable instant access to the customer account. No PINs are required,



## EDUCATION

Almost a third of the region's population is of school age<sup>5</sup>. The online education market is growing by 15% a year<sup>6</sup>. And digital identity is key to growing it further and promoting digital inclusion among learners. Providers in the region are already using biometrics to grant students access to online learning, in the case of Dubai University, to monitor attendance and to prevent cheating<sup>7,8,9</sup>. The use of biometrics in education will grow with the market.

### USE CASE EXAMPLES

#### CUSTOMER ONLINE EVALUATION AND PROCTORING

Enrolled students can gain authorised access to exams and assignments with a simple selfie and ID document capture. Continuous authentication with passive liveness can be set over the course of the exam process to ensure the registered students are assessed and no cases of fraud take place.

#### ATTENDANCE TRACKING FOR ONLINE COURSES

With a quick selfie, students can instantly register their online presence for live course sessions.

## INSURANCE

The insurance market in the Middle East could potentially grow by up to 10% a year between now and 2030<sup>10</sup>. At the same time, the region's market for "insurtech", insurance provided online and through apps, is expected to grow. Almost seventy percent of insurers in the region want to partner with fintechs and enter the insurtech market<sup>11</sup>. That can only happen if they are able to efficiently, securely and seamlessly authenticate their customers. Saudi insurer Tawuniya, for instance, already uses biometrics as part of its health insurance offering.

### USE CASE EXAMPLE

#### POLICYHOLDER AUTHENTICATION

Facial or voice recognition technology, or a combination of both, can be used in the insurance industry to quickly and easily authenticate policyholders while addressing their claims or requests at call centres. By using a selfie or a spoken passphrase, the technology can confirm the identity of the policyholder, comparing it against the stored biometric credentials with greater accuracy and convenience, while adding an extra layer of security to protect against fraud.

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5. <https://www.youthpolicy.org/mappings/regionalyouthscenes/mena/facts>

6. <https://www.researchnester.com/reports/middle-east-online-education-e-learning-market/238>

7. <https://www.biometricupdate.com/202009/biometric-signature-id-brings-remote-proctoring-and-identity-verification-to-middle-east>

8. <https://www.securitymiddleeastmag.com/dubai-gets-balling-rolling-for-biometric-roll-out-across-business-schools>

9. <https://www.git-security.com/nachrichten/biometric-time-attendance-system-dubai-campus>

10. <https://www.atlas-mag.net/en/category/regions-geographiques/moyen-orient/mena-zone-insurance-market-growth-prospects>

11. <https://www.mordorintelligence.com/industry-reports/middle-east-and-africa-insurtech-market>

## HEALTHCARE

The healthcare market in the Middle East is set to grow at a rate of 26% a year between now and 2030<sup>12</sup>. Healthcare biometrics – for everything from patient identification through staff and clinical security – is currently forecast to grow by around 17% a year until 2028<sup>13</sup>. But even this may be an underestimate, with adoption rates accelerating as the market grows and the technology gains wider acceptance.

### USE CASE EXAMPLES

#### TELEHEALTH

Healthcare providers can use facial recognition technology to securely authenticate patients for telehealth appointments, consultations, and therapy sessions.

With a quick and secure patient identification process, patients can receive care from the safety of their homes while health providers can access patient records without the need for passwords, tokens, cards, or PINs, ensuring secure and confidential authentication.

#### MEDICAL STAFF ONBOARDING

Automated document capture and facial biometric comparison streamline the medical staff onboarding process, reducing administrative burden and ensuring regulatory compliance. This enables healthcare providers to onboard new staff members more efficiently and securely, maintaining high standards of confidentiality.

## GOVERNMENT

State spending on investment in technology in the MENA region is now worth US\$1.7 billion and is growing at a rate of more than 2% a year<sup>14</sup>. All the major states in the region have official programmes promoting the digital transformation of their societies and economies. That's only possible with seamless identification and authentication – and that means investment in biometrics.

### USE CASE EXAMPLE

#### SECURE PENSION COLLECTION

Governments can leverage biometric identity verification technology in national pension collection schemes to improve efficiency and transparency, reduce administrative costs, prevent fraud, and ensure that only eligible recipients receive their pensions.

This can be achieved through the integration of passive liveness checks, which authenticate the user's identity without requiring any active participation. Additionally, an intuitive user interface can be implemented to make the pension collection process easier and more accessible to users, especially the elderly population who may not be tech-savvy.

12. <https://www.grandviewresearch.com/industry-analysis/middle-east-africa-telehealth-market-report>

13. <https://www.linkedin.com/pulse/middle-east-africa-biometric-service-healthcare-market-john-martin-7e>

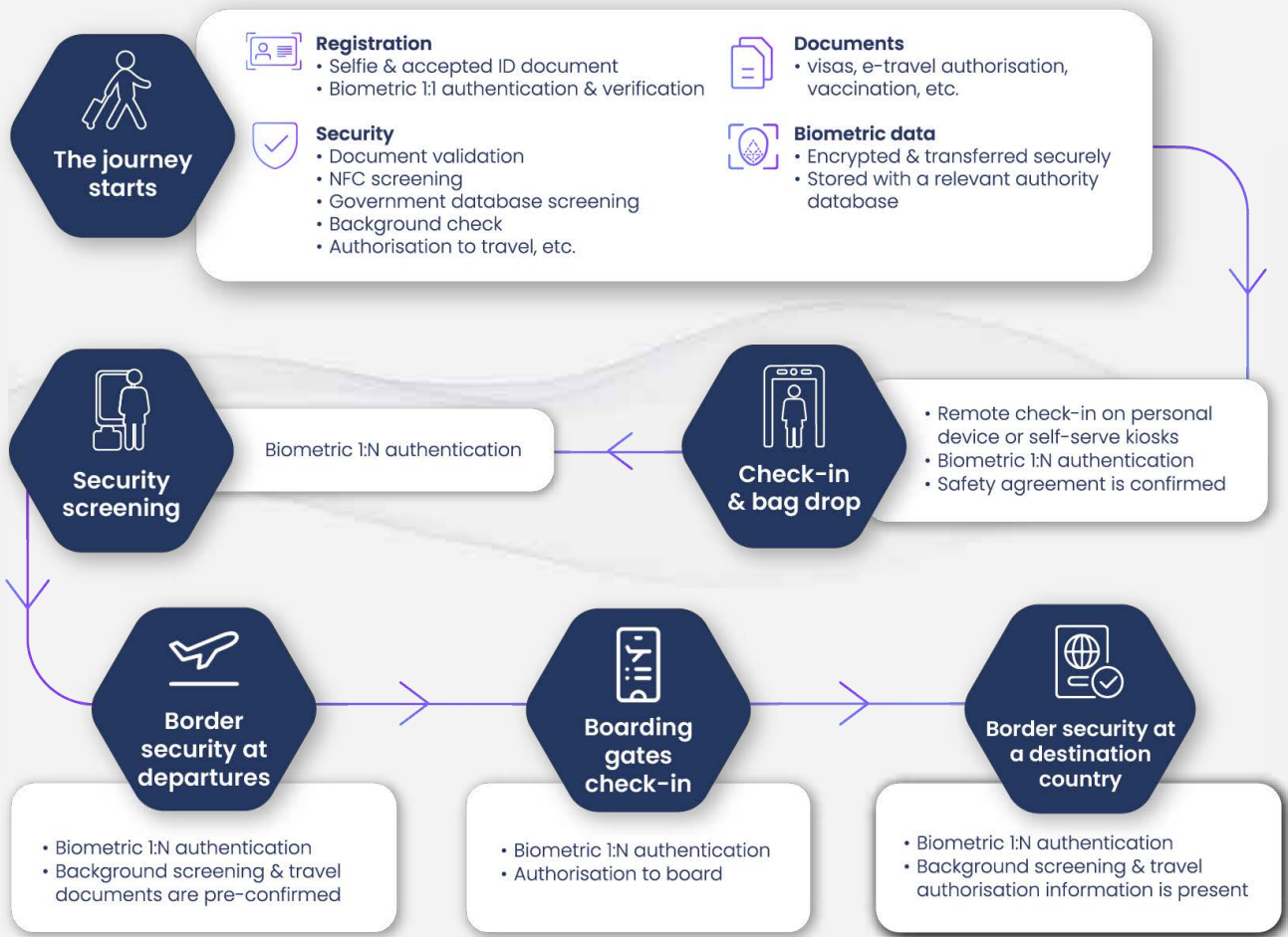
14. <https://www.gartner.com/en/newsroom/press-releases/2021-11-23-mena-it-spending-forecast-2022-3q21>

**TRAVEL**

As we've seen throughout the report, countries across the region are increasingly using biometrics to improve security and passenger experience at airports and borders. Tourism in the region is growing by more than 11% a year<sup>15</sup>. To capitalise on this, governments and the private sector will need to invest in improved travel infrastructure, with biometrics as a key to greater passenger throughput.

**USE CASE EXAMPLE**

**SEAMLESS TRAVEL EXPERIENCE ENABLED WITH FACIAL IDENTIFICATION TOKEN**



15. <https://skift.com/2022/12/07/middle-eastern-destinations-lead-global-travel-recovery-middle-east-travel-roundup/>

## COUNTRY OVERVIEW

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As societies digitise – something which is already happening rapidly – more sectors will find they have an urgent need for seamless, customer-friendly and secure authentication.

This means that even these initial growth areas are likely to be just the first areas in which biometrics achieve mass market penetration. They will soon be joined by others. Companies which adopt digital ID will have a head start in offering customers the combination of security and user-experience they expect. And that will give them a competitive edge.

### THE UAE

By 2025, the UAE aims for residents to be able to access 90% of all public services through a single, unified digital platform<sup>16</sup>. The country ranks first in the world for mobile broadband speeds and in the top 20 for fixed broadband. Unsurprisingly, given these foundations, the Emirates e-commerce market is growing at a rate of 53% a year according to the most recent figures<sup>17</sup>.

To enable this rapid digitisation, both the public and private sectors in the UAE have prioritised the adoption of digital identity technologies, including biometrics. The government has already created the UAE Pass, a national digital identity app with which users can access more than 5,000 public and private-sector services.

The United Arab Emirates (UAE) biometrics market is likely to progress with the highest CAGR. This is due to growing infrastructure and construction market. UAE already has the world's biggest biometric database, which contains over 135 million fingerprints, hand/palm prints and facial images of residents.

Source: <https://inkwoodresearch.com/reports/middle-east-africa-biometrics-market/>

This builds on work the country began as early as 2015 to accelerate immigration and passport control at its airports through biometrics technologies. By 2022, this had been expanded to a full biometric airport initiative, that – once completed – will allow passengers to proceed from the curb side to the departure gate without ever handing over a physical document.

Other significant biometric initiatives in the country include the adoption of facial recognition for digital user logins by the Abu Dhabi Islamic Bank and the subsequent announcement by the country's central bank of a public consultation on proposed new biometrics standards for the entire financial services sector.

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16. <https://u.ae/en/about-the-uae/digital-uae/uae-national-digital-government-strategy>

17. <https://www.thenationalnews.com/business/economy/uae-retail-e-commerce-market-value-hits-record-3-9bn-in-2020-11247413>



## SAUDI ARABIA

As part of its Vision 2030, the Saudi government has created a national Digital ID. By the end of 2022, more than 70% of the country's citizens had already signed up for the digital-ID app<sup>18</sup>, through which they can already access more than 350 public services, with more to follow.

In 2021, the Saudi government announced plans not just for a digital national identity app, but for a fully biometrically enabled national passport<sup>19</sup>. The passport will incorporate biometric elements such as fingerprint, iris, and facial recognition.

As with the UAE, the financial services sector has been an early adopter of biometrics. In 2021 the country saw the launch of its first biometrically enabled payments card, which uses fingerprint recognition to allow Saudi shoppers to pay without the need to remember a PIN. A Saudi ATM which uses facial recognition is already reported to be on the way<sup>20</sup>.

As well as supply-side adoption, whether by government or the private sector, there are also signs that Saudi consumers are increasingly demanding the combination of convenience and security that biometrics offers. In a 2022 study, more than half of Saudi consumers expressed reservations about the level of security offered by standard passwords and older forms of ID<sup>21</sup>.

## EGYPT

As part of its Vision 2030, which aims to transform Egypt into a digital society, the Egyptian government is moving to a system of digital identity for access to a growing range of public services.

In 2021, the country began work to integrate fingerprint recognition into its digital state ID<sup>22</sup>.

The country already has a long history with biometrics. As far back as 2016, it installed biometric-based workforce-management systems to improve security and efficiency in key airports. The technology is also spreading beyond the travel sector.

Egypt Post, the national postal service, has fitted biometrics to its network of ATMs. This will allow its 30 million customers to complete transactions quickly, using fingerprint recognition<sup>23</sup>. Telecom Egypt, the state telecoms company, has also introduced biometric ID at its facilities, as a way of improving security.

### USE CASE – SIM FRAUD PREVENTION

With facial recognition, telecom companies can reduce the incidence of SIM fraud and increase customer trust and loyalty.

When a customer requests a SIM swap or activates a new SIM card, they can be prompted to take a selfie for biometric authentication. This ensures that only the authorised user is making the request, preventing fraud and identity theft.

As with other markets, financial services, in particular payments, is an area in which the Egyptian private sector has been fastest to adopt biometrics. In late 2021, the country saw the launch of its first biometrically enabled payment card, allowing customers to authorise payments using their fingerprints, rather than a PIN or password.

18. <https://www.itp.net/infrastructure/more-than-26-million-citizens-register-their-digital-id-on-saudis-egov-platform>

19. <https://www.biometricupdate.com/202110/saudi-arabia-plans-imminent-rollout-of-biometric-passport-uae-hits-2m-digital-ids>

20. <https://www.finextra.com/pressarticle/77455/saudi-arabian-atm-firm-trials-biometric-and-blockchain-authentication-tech>

21. <https://www.arabnews.com/node/2196141/business-economy>

22. <https://me.mashable.com/tech/12805/egypt-to-unlock-futuristic-id-verification-with-finger-vein-recognition-tech>

23. <https://www.theworldfolio.com/interviews/driving-egypts-digit/4665>

**QATAR**

In 2022, Qatar launched the Qatar Digital ID (QDI) app, allowing citizens to provide their identity using digital means. Nor is this country's first foray into digital identity. The ID card on which the app is based has included biometric elements – fingerprints and facial recognition – since 2007.

During the recent FIFA World Cup, Qatar used facial recognition – connecting its nationwide network of CCTV cameras to powerful biometric technologies – to help prevent terrorism and football hooliganism. Outside the public sector, as in other countries in the region, Qatar's financial-services and travel sectors have been keen early adopters of digital ID.

In 2019, Hamad International Airport (HIA) introduced facial recognition as a way of accelerating passenger movement through the airport while also improving security.

In 2020, the Qatar National Bank installed biometrics in selected ATMs, allowing customers to authorise transactions in just seconds using iris recognition. The Qatar Fintech Hub, a project supported by the Qatar Development Bank, is also working to raise awareness and encourage the adoption of digital identity and biometrics by financial-services providers in the country<sup>24</sup>.

**CONCLUSION**

Looking ahead, the future of biometric technology in the Middle East is promising, significantly impacting the way various sectors operate. The region widely leverages AI technologies to transform outdated infrastructure into a modern urban environment for a healthy and productive lifestyle.

Despite the opportunities, there are challenges associated with the implementation of biometric technology in the region. Factors such as security, inclusion, data privacy, and accessibility must be taken into account to ensure that the technology is implemented in a way that protects the rights and freedoms of individuals and respects their privacy. To ensure this, both governments and private organisations must play crucial roles.

Governments can establish legal frameworks and guidelines that set out standards for data protection and privacy, while ensuring that the technology is inclusive and accessible to all members of society.

At the same time, organisations should provide clear and accessible information about how individuals' data is being collected, used, and protected. This helps to build trust with stakeholders and ensures that biometric technology is used for the greater good while respecting the rights and freedoms of citizens.

24. <https://findbiometrics.com/zwipe-forms-biometric-card-partnership-with-qatar-fintech-hub-030203>

## FACEPHI IN THE MIDDLE EAST

Facephi is a leading biometric technology company, specialising in digital onboarding, identity verification, and authentication solutions that build trust, enable secure digital experiences, and protect against fraud.

We work globally, including in the Middle East region, collaborating with organisations from diverse industry verticals. We are a trusted partner supporting over 250 clients in banking and financial services, crypto, healthcare, government administrations, and more.

Our expertise in biometric technology, combined with our experience in diverse industries, allows us to focus on delivering robust security and exceptional customer experiences. Our background in the heavily regulated banking industry enables us to securely address pain points and challenges with bank-grade security solutions. We understand the importance of balancing security and regulatory compliance with a seamless customer experience and strive to combine KYC, security, and compliance without compromising on either.

At Facephi we offer a comprehensive suite of biometric solutions, including digital onboarding and KYC, advanced OCR data capture as well as Arabic OCR, authentication, Facephi Identity Platform, document verification, real-time AML screening, video KYC and other multi-biometric digital identity verification capabilities to help organisations in the Middle East achieve their digital transformation goals with enhanced security and trust.

For more information on Facephi's digital onboarding, identity verification and authentication solutions please go to [www.facephi.com/mena](https://www.facephi.com/mena) or call **+(971) 50 803 9793**.