

Saudi Arabia – Ministry of Culture Access Control Management Case Study

Project Description

Project Site: Saudi Arabia

The Ministry of Culture symbolizes the national and international advancement of culture in the Kingdom. The Ministry will preserve the Kingdom's historical past and promote a culturally rich future that fosters art and culture. The Ministry was created on the 2 June 2018 by Royal Order A/217, under the leadership of His Highness Prince Badr bin Abdullah bin Farhan Al Saud, the Kingdom's first dedicated Minister of Culture. The Ministry has a crucial role to play in delivering Saudi Arabia's ambitious transformation programme, Vision 2030. Our goal is to contribute towards building a vibrant, thriving, and ambitious nation. The Ministry formally launched on the 27 March 2019 when we published our cultural vision for the Kingdom. This set out the Ministry's key aspirations, which are: promoting culture as a way of life, enabling culture to contribute to economic growth and creating opportunities for international cultural exchange.

Our solution involves a newly installed access control system, as they wished to enhance security level of their new office building. ZKTeco is honoured to provide a solution to them.

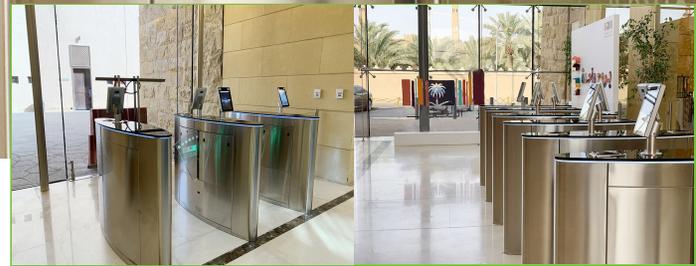
Project Requirements

Reliable Facial Recognition

Biometric Verification Methods have been widely applied as it offers convenience and accuracy that conventional verification methods are not able to achieve. Our client is deeply interested in its preciseness of verification, however in the past, facial recognition deployment in Middle East region had always been a challenge because of the general face features of their people, as male there normally have beard on their faces and also because of the intense sunlight that exceeds the tolerance level of conventional facial recognition to properly perform. ZKTeco thus had to provide something else that is truly pioneering in facial recognition.

Verification Methods suitable for different needs

Biometric Verification Methods have been widely applied as it offers convenience and accuracy that conventional verification methods are not able to achieve. Facial recognition as a biometric verification has been significantly improved in terms of its quickness, preciseness and convenience, and our client is also impressed by our pioneering visible light facial recognition technology, as it is able to operate under normal lighting environment, and no longer needs infrared sensors which in the past was compulsory to near-infrared facial recognition terminals. The Ministry of Culture had positive attitude towards facial recognition, but also had their concern that most of the Muslim females' faces are covered which may disable them from being successfully verified. Therefore, apart from only facial recognition, our client required a system provides different biometric verification methods that are compatible with different users' needs.



End User: Ministry of Culture of Saudi Arabia

Configurations

System	Device Name	Device Model	Device Quantity
Access Control	Flap Barrier	FBL5000	12
	Access Control Terminal	ProFaceX	16
	Access Control Fingerprint Reader	FR1200	12
	Access Control Fingerprint Reader	ZK4500	4
	Access Control Panel	InBioPro	12
	Access Control Software	ZKBioSecurity	

Technical Features

- 12 units of ZKTeco FBL5000 Flap Barriers have been deployed at the entrance of the building.
- Each flap barrier is equipped with 1 unit of ProFace X Visible Light Facial Recognition Access Control Terminal and 1 unit of FR1200 Fingerprint Reader.
- There are other 4 main doors of the building, 1 unit of ProFace X and FR1200 are also installed at each door to perform access control.
- All staffs are registered with their personal information, face images and fingerprints. They are required to either scan their faces verification. Only upon successful verification are they allowed to have access to the building.
- For staffs who wish to remain their appearances, they may scan fingerprints instead of faces for verification.
- Each staff is also given a staff card with their personal information. It is an RFID card which can be scanned by the access control terminals for access control purpose.
- Visitors are also required to have a quick and convenient registration of their faces and fingerprints to have access.
- Since the ProFace X is visible light facial recognition enabled, staffs and visitors may even simply use selfie photos for registration and access verification, of course we deployed IP cameras for photo registration in case anybody needs.
- As ZKTeco's visible light facial recognition technology enables proper functioning under intense sunlight, and is able to recognize faces' with different face features with its computer vision and deep learning technology and the new WDR camera, it works perfectly in this case.
- All terminals and readers are connected by the InBioPro Access Controllers and are centrally managed by the ZKBioSecurity Access Control Software. All access control status can be reviewed anytime and access control reports can be easily generated.
- In the next phase, our client is planning to integrate the facial recognition system with other systems such as ERP system, CRM system and HR management system. All these integration can be easily achieved as through the ZKBioSecurity API, to achieve an intelligent office.

Functional Description

- ProFace X is a fully upgraded version of the ProFace product line, which is designed to deal with all kinds of scenarios. It's powered by the latest ZKTeco-customized CPU for running the intellectualized engineering facial recognition algorithm to boost up the performance in all aspects.
- With its powerful core and the latest facial recognition algorithm, the ProFace X facial recognition capability has reached a new height in the biometrics industry with a maximum of 50,000 facial templates, facial recognition speed less than 0.3 sec per face, ultimate anti-spoof ability against almost all types of fake photos and videos attack.
- Other than the powerful core, ProFace X is also equipped with the latest face capture system, which enables the terminal to recognize faces under extreme strong light conditions (50,000 lux), and a microwave detector to precisely evaluate the distance between the user and the device for waking up the terminal.
- ProFace X comes with a robust design that can work in extreme weather conditions from -30°C to 60°C; The IP68 dust and waterproof standard and IK04 protection standard also enhance its outdoor durability.
- FR1200, a fingerprint reader with RS485 communication interface works with biometric access controllers and fingerprint standalone access control, including inBio series controllers, F8 and so on. It offers the function of capturing and transferring fingerprint samples to access control panel. With its IP65 rated rugged structure, FR1200 offers extra durability in all weather conditions including outdoor environments.
- ZK4500 is a stable and excellent fingerprint scanner. The device can capture fingerprint image and upload to PC by USB interface. It supports Windows 2000/XP/2003/Vista/7(32/64bit). We provide developer with SDK. The developer can integrate the hardware into their own system. This product is widely used in social insurance, public security, time attendance, fingerprint encryption, embedded system and other fields of application.
- InBio Pro Series is a project oriented high-end product line with unique features such as embedded fingerprint verification and advanced access control functions, which can be managed by TCP/IP communication thru LAN or WAN networks. InBio controller firmware can be upgraded in the field. Stores up to 3,000 fingerprint templates, 30,000 card users, and up to 100,000 events and transactions. Controller is backed up in real-time in on-board SD card. Data is preserved if power is lost. InBio continues to operate if network connection is interrupted. Along with relay contacts for controlling door locks, easily programmable auxiliary relays can be used for additional control and interface to lights, alarms, annunciators, intrusion detection panels, or even extra locking devices or gate controllers.
- InBio controllers come in three sizes to suit project needs and reduce the cost of unused capacity. 1-door, 2-door, and 4-door models can be mixed and matched in an optimized system architecture. Anti-Passback, First-Card Opening, Multi-Card Opening, Duress Password Entry, and Auxiliary Input / Output Linkages are built into controller firmware.
- ZKBioSecurity is the ultimate "All in One" web based security platform developed by ZKTeco. It contains multiple integrated modules: access control, time attendance, elevator control (online / offline), hotel module, visitor management, parking, guard patrol and video linkage. With an optimized system architecture designed for high level biometric identification and a modern-user friendly UI, ZKBioSecurity provides the most advanced solution for a whole new user experience.

