

Taking the Pulse of Biometrics in the Persian Gulf

Biometrics is really coming into its own in the Persian Gulf and, now, the technology can be considered essentially mainstream. The region has, therefore, become a key factor in the global strategies of all the world's major players.

BY BRIAN ASMUS

The Gulf Cooperation Council nations (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates) have become one of the fastest-growing markets for security equipment and technology. Sales of biometrics in the GCC nations have been growing by 40 percent to 50 percent per year over the past three to four years," said Christophe Jean, Sales Manager, Sagem Defense Securite. Will this continue forever? "Maybe," he said with a laugh. "Still, the growth potential has been quite strong." Very soon, Sagem will be releasing a new generation of readers with more ID capabilities that will be even bigger, better and faster. While these will not be released only in the Middle East, it will be one of the key markets.

"Biometrics is getting bigger," said a representative at Emirtec, in agreement. "There are tons of products on the market. Prices are now cheap enough that people are willing to buy." He estimated that 50 percent of cards being sold at the high-end incorporate some form of biometrics. "Every company in the region is using biometrics, mainly to control time and attendance as well as access." Jean seconded this: "Some 50 percent of biometric devices are being used for time and attendance. There is a big market here because of problems with punctuality and work attendance." Mainly, he added, biometrics has been used for identification not verification. He reported that there were not too many rules or regulations governing use of biometrics. "There are few hindrances." Pricing, observed Jean, is much more competitive than in Western Europe.

Oman, to one local player, is a good market. "We have a customer there who places an order of US\$20,000 every month. Most of this is going to banks." Jean also found the nation to be "a very interesting market for us."

Cathy Liu, Sales Specialist, Sales and Marketing Division, iSafe Technology Inc., reported that her company started doing business in the region two years ago. "We were attending trade shows all over the world to promote our company and its products. Naturally, that led us to the Middle East, which is an important region in our global strategy. There are many good opportunities here, better than in North America, where there are too many players." Doing business in the region, however, takes a "bit longer" and there are a lot of delays in delivery and getting responses. In addition, she finds price is still a barrier to doing business in Iran and Egypt.

Taking the Measure of the Market

Buttressing these views is a report by Ishtiaq Hussain at the U.S. Commercial Services, which noted in a report last August that "Safety concerns in Saudi Arabia--one of the key markets--are fueling a rapid expansion of the security market. Imports of security products for 2005 are estimated at over \$500 million--a 40 percent increase from 2004." Nearly every organization in the country, he added, "is reassessing existing security, many are upgrading and a number of upcoming projects will motivate the market." Most government, quasi-government and major private facilities are upgrading existing security equipment with particular attention paid to ID systems and access control.

Naturally, a major part of this effort involves biometrics. Hussain pointed to a project to provide ID cards for the approximately 3 million pilgrims that visit Saudi Arabia annually, as well as a national ID card plan for citizens and another plan to fingerprint all visitors arriving in the country. Additionally, the Traffic Department

of the Saudi Ministry of the Interior is planning to install a vehicle identification system with cameras, CCTVs and a central computerized database for monitoring traffic and infringements, issuance of smart card drivers' licenses is also being discussed and amalgamation of several small banks into large entities is expected to result in a network of new bank branches. Saudi Aramco—the national oil company—is upgrading access security at all company sites. In fact, it is estimated that the Eastern Province, where much of this activity along with heavy industry is concentrated, accounts for 75 percent of the non-military biometric market. The biometric security market in Saudi Arabia is expected to grow to over \$250 million by 2008, he explained.

Liu agreed that Saudi Arabia, along with the United Arab Emirates, is the major market. In addition, she sees good prospects in Kuwait and Bahrain. "Obviously, though, the United Arab Emirates and Saudi Arabia are the biggest ones." Driving demand for biometric solutions is the booming construction market. According to the U.S. Commercial Services report prepared by Anne de Souza last August, the market for biometric products and services in the United Arab Emirates is expected to be worth over \$630 million within three years.

Biometric devices in the market concentrate on logical access for personal computers, physical access for security enhancement and surveillance. These are being used primarily in security for criminal data and population authentication, medical and social services for identification purposes, information systems for securing data, transportation for access control and the private sector for access control as well as time and attendance. Key verticals are the oil and gas industry, government (for immigration clearance and national ID cards) and financial services. Liu's customers include government agencies and private-sector companies. "We are finding that many hotels, office buildings and apartment complexes like to deploy biometric products so that they stand out from the competition."

Key Technologies

Neither the U.S. Commercial Services, nor those interviewed reported any domestic production in the region. As such, biometric products and services are nearly all imported with Arabic language being added as desired. Primary technologies in the United Arab Emirates, according to the U.S. Commercial Services, are fingerprint (85 percent), hand geometry (10 percent), iris (2 percent), retina (2 percent) and facial recognition (1 percent). Jean agreed: "Fingerprint accounts for 90 percent and that is very different from Western Europe. I am not aware of any large projects for iris recognition." One industry specialist reported slightly different figures: "Fingerprint is the biggest; I would say 70 percent of the market, 20 percent to 25 percent is hand geometry with all the rest accounting for 5 percent to 10 percent."

David Nam, Regional Manager, Global Marketing and Sales, IDTECK, put fingerprint even lower at 50 percent with 10 percent facial, 10 percent to 15 percent iris and 15 percent hand geometry. The latter, he said, is being used by companies mostly for time

and attendance. "There is no reason why anyone should use it rather than fingerprint devices," he said, while iris is mainly used for high-security government and military facilities. "It is still quite expensive." Customers, he continued, want special security systems and they do not want to store fingerprints in systems; they want to carry them around on cards.

Facial recognition is becoming popular, especially when integrated with time attendance systems, said Liu. Part of its acceptance stems from the fact that facial recognition is one way for owners of office and apartment buildings to differentiate themselves even though the software at present is "not really that good." She also reported that the company is



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selling a lot of license plate-recognition systems to palaces.

Major players in the United Arab Emirates, said Hussain, are Identix, Iridian Technologies, Recognition Systems, Motorola, Daon, Honeywell, Digital Persona, HID Global and Bioscrypt as well as LG Electronics, Sagem and Siemens. For Ali El Zaher, Area Manager at EMIR TEC, the important companies are Sagem, BRS, IP-TECK, IDTECK, Gantner and RCG, while for Jean, they are Sagem and Korean companies, including IDTECK, which is "quite strong." Jean finds that Bioscrypt "does not really have a direct presence so it is less strong within the region, and Verint is not very visible either." Nam, however, cited Bioscrypt in addition to Suprema and Sagem.

Sagem uses dealers, mainly distributors. In the United Arab Emirates, Emirtech and its sister company Citytech are big, said Jean, and the company has local partners in Saudi Arabia. For Nam, major distributors in Dubai include Dataline, but IDTECK also works with small dealers and installers directly.

Hussain urged U.S. companies interested in supplying the market to consider harsh climatic conditions. "These can pose major problems for sensitive security items, particularly when used outdoors where they are exposed to extremes, heat as well as high humidity in coastal areas. Sand, in particular, can work its way through the minutest gaps," Abdullah al Mohamadi, Technical Services Manager at Hemaya, agreed. "Qatar is a dusty country so biometrics, like fingerprint sensors, have not really proved

themselves. Accuracy is still a bit of a problem. The harsh climate means that delicate machines are easily affected when doors open. Then, a huge amount of hot, humid air enters air-conditioned buildings and this affects device performance."

Not surprisingly, maintenance and backup services are often crucial in winning contracts. "Saudi companies struggling to operate sophisticated equipment without the benefit of qualified technical backup," said Hussain, "have a tendency to change to alternative equipment for which support is provided. While it is tempting to leave maintenance out of the initial equation in order to lower bid costs, any resulting malfunction of equipment may damage the reputation of the firm to the detriment of future sales." De Souza recommends that U.S. companies counter competition from other countries by highlighting client lists as well as focusing on proven quality and reliability. Providing case studies or current application of a product is important, while noting that low cost is "not a determining factor" for high-security applications.

Another problem, said the U.S. Commercial Services Report, is that the Saudi government has a Saudization program in place "forcing firms to employ an increasing number of Saudi nationals." In the private sector, a 70 percent attrition rate among Saudi employees makes "retention of trained personnel a problem." While it further noted that the attrition rate is lower in the public sector, it cautioned that employees change departments often and the problem with trained operators is similar.