

# SUPREMA

## case study



Industry: Education/Government  
Client: Department of Education  
Gauteng Provincial Govt.  
Application: PC Security, e-Learning  
Solution: USB Fingerprint Scanner  
Year: 2008  
Country: South Africa  
Release: Nov 2008

## Fingerprint Solution for Public Schools in South Africa



### The Background

South Africa today, like many other third-world nations, face the challenge of building capacity of knowledge-based industries. Information and communication technologies has shown the potential to generate sustainable economic growth and an ability to create wealth and prosperity in all sectors of economy.

The Gauteng Province, as the economic heart of sub-Saharan African National, the Provincial Government has recognized that the province could lead the rest of country into the knowledge economy. The Gauteng Provincial Government Department of Education (GDE) has aligned itself with the National Government's goals to build a strong human resources capacity. The GDE, through the 'Gauteng Online' (GOL) program, plans to provide all learners with IT access by 2013 by establishing computer labs and

network for every school in Gauteng. This two-billion-Rand GOL program was the biggest IT project in South Africa, and the project was managed by SMMT consortium.

### The Challenge

The goal of the GOL project is to build province-wide schools' IT network with a computer laboratory for all 2,500 schools in Gauteng with Internet and e-mail for curriculum delivery and assessment. Each lab was to have 24 learner workstations, a teacher workstation, a printer, a gateway server with UPS and satellite dishes.

The government tender was won by SMM Telematics and Beget Holdings Ltd., South Africa's leading system integrator, was a part of SMMT consortium. Beget was to provide biometric log-on system and anti-theft alarm systems with monitoring software.

GDE desired to equip e-learning system adopting biometrics logon system to all public schools in Gauteng in order to keep their education system more competitive. The biometrics application was chosen mainly to protect users' (students) privacy when accessing personal information and academic objects.

GDE were concerning about the most secure and stable system to handle huge number of users in a daily basis. In addition, they wanted they system supports the server and client communication to keep the personal fingerprint information in a secure and fast way storing and matching in the server for privacy protection.

### The Solution

Suprema's major contribution to the GOL project was provision of biometric solution. Suprema's SFU-300, a fingerprint scanner module



## About Suprema

Suprema Inc. is a leading global provider of fingerprint recognition and identity management solutions and systems. The company's range of products includes fingerprint modules, fingerprint systems, e-passport readers and live-scanners. Suprema has worldwide sales network over 100 countries and its customers include worldwide companies like Samsung, Hitachi, Siemens, and Assa Abloy.

Suprema's fingerprint algorithm was proven to be world's most reliable solution by ranking No. 1 in the international Fingerprint Verification Competition (FVC) in a row in 2004 and 2006 with the unrivalled outstanding performance. The company's fingerprint matching and extracting algorithms also ranked top in the Minutiae Interoperability Exchange (MINEX) test by the NIST (National Institute of Standards & Technology) in 2008.

Suprema is the first biometrics company listed on Korea's stock market (KOSDAQ) with its market capital exceeding US\$100 millions.

For more information, please visit [www.supremainc.com](http://www.supremainc.com)

with USB interface, was installed to each workstation in schools.

Beget selected Suprema's SFU300 solution from several fingerprint scanners after a series of tests to verify the best fingerprint solution for the case. Major selection criteria were product reliability, performance and vendor's industry expertise. SFU300 with Suprema's award-winning algorithm and technological expertise, was the best choice of enterprise-level biometric solutions for GOL project.

When users put their fingers on SFU300, it transmits the fingerprints information to the server and returns matching result to client PC which will show the latest page they studied. All fingerprints data in the system are encrypted to prohibit for higher security and Suprema supports scalable fingerprint template helping much faster matching speed among huge fingerprint data stored in the server.

"This is the first biometric authentication school project in South Africa. In the public tender, the consortium was successful with Suprema's faster verification speed and accuracy. Since we are receiving very positive feedback from clients, we expect to complete the project ahead of our plan," said a Beget executive.

'Gauteng Online' is a 2 billion Rand (US\$ 256 million) project in total. Around 27,000 PC units will be supplied with Suprema's biometric solution by Q2 2009. And upon successful launching of this project, Suprema is expecting additional 33,000 PC deal by 2011.

The system has successfully implemented and is operating in public schools in Gauteng province. Based on the success in Gauteng province, South African government has a plan to extend establishing biometric e-learning system to all other public schools nationwide.



Model name	SFU300	BioMini
Type	Module	Standalone
Fingerprint sensor	Optical	Optical
Sensing area	16mm x 18mm	16mm x 18mm
Image size	288 x 288 pixel	288 x 288 pixel
Image resolution	500dpi / 256 gray	500dpi / 256 gray
Interface	High speed USB 2.0	High speed USB 2.0
Operation temperature	-10°C -50°C	-10°C -50°C
Size (mm)	40(w) x 22(h) x 8(l) - mainboard	40(w) x 77(h) x 70.5(l) mm



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