

Tanzania Police

Tanzania Police is primarily responsible for effective control of crime in the country. Reliable methodologies to identify criminals are the first and most important step in solving any crime. Identification of criminals through fingerprinting has been a time tested and necessary tool for the Tanzania Police. The Identification Bureau is primarily responsible for this activity.

Business Requirements

The Database and Workloads of the system configured at Identification Bureau are as follows:

Database & Workloads at Identification Bureau

Sl.No	Description	Qty
Database		
1.	Ten Print Records	1,000,000
2.	Unsolved Scene of Crime Database	10000
Workloads per day		
3.	Ten Print Searches	300
4.	Updates	100
5.	Latent Print Searches	10

Keeping the various problems associated with manual system viz., maintaining paper-based records, conducting searches manually, increasing workload per day and turnaround time of criminal identification, Tanzania Police wanted to automate the manual system to improve performance of the fingerprint bureau. Their main focus was on the following before procuring an Automated Fingerprint Identification System:

- High speed and high matching accuracy
- System built on open standards
- No proprietary hardware
- Software developed Indigenously
- Long term support from the company
- Excellent R&D facility for future improvements
- User-friendly interface
- Total cost of ownership
- Highly scalable system

Solution

In 2004 CMC Proposed FACTS to Tanzania Police to be carried out as a turnkey solution. FACTS Central was proposed at Identification Bureau, Dar es Salaam, Tanzania, to cater to a database of one million ten print records and huge workloads.

At Central Location, one FACTS control server runs on HP ML 370 G3 with dual processors of Xeon @ 3.06 GHz each with Red Hat Linux as OS and Oracle as RDBMS. Two FACTS Matcher server runs on HP ML 370 G3 with dual processors of Xeon @ 3.06 GHz each with Red Hat Linux as a OS and Oracle as RDBMS. Seven FACTS workstations, which run the FACTS Workstation software and shall be based on Intel desktops running Windows XP Professional.

Communication Methodology

LAN. This is the communication backbone for all the systems at central location. LAN supports 3 servers, 7 FACTS workstations and a network printer. All the systems use the TCP/IP and SNMP communication protocol.

Work Flow

At Identification Bureau. At the start of each transaction, a unique Transaction Identification Number (TIN) is assigned. Normally, each transaction starts with data input (INP) at input workstation. At the input stage, the fingerprint slip or the latent print is scanned and encoding is done automatically, after which Quality Check (QC) is done. During the Quality Check stage the encoded results are crosschecked for pattern type, core delta positions, etc. No Minutiae level editing is required.

The transaction is then passed on to the Matcher. The results of the matching are viewed and checked by the Verifier (VRF), since images are required for verification; the Verifier Servers keep providing the images.

After verification, the data could be added to the database (if no match is found) and also be sent for matching with other databases (Unsolved Scene Of Crime) as the case may be.

Transaction Termination (TT) is the last process, which cleans up the transaction when it is completed.

Allied Services

CMC provided various allied services like Training, Annual Technical Support and Hand Holding and support for backlog conversion.

Hand Holding was given to Tanzania Police by the way of placing a CMC engineer at the identification bureau to assist Tanzania Police in catching up with the system at the earliest under able guidance.

Operator and administrator training was provided to Tanzania Police, which was highly appreciated by the Police Personnel.

Customer Comments

Mr. E. MGAWE –SACP on behalf of Director of Criminal Investigation, Tanzania Police Force.

“We appreciate the efforts put in by CMC Limited in completing the project on time”

Benefits

- Faster crime investigation
- Higher hit rates
- Many old cases solved
- Better image and morale
- User-friendly graphical user interface