Introduction

Due to the continual physical growth at Khartoum State and the increase in population density in addition to the variation in ethnic and cultural characteristics, the security threats are increasing in number and variety. Due to this, the Khartoum State Police has to maximize its utilization of the progressive advancement of technology in the area of communications and informatics. This will enable it to develop systems that will assist in security control at its various levels and improve its performance to cope up with the era. This was the beginning of the administration in 2006. The Director for Khartoum State Police issued an order dated 8 August 2006 authorizing the formation of a high technical committee for developing a detailed project plan for the control and command system. The committee's membership included representatives of Khartoum State Police and experts from outside the police (the National Communication Authority, War Industry Authority, Ministry of Science and Technology).

The system for control and command is considered one of the most important systems that Khartoum State Police relies on for managing and controlling the security situation at the capital. It will depend on this to help with reduction of crimes and improving the efficiency of police work in the state.

A brief on the system for command and control

System for command and control is an integrated central system that enables the surveillance of incidents sites. It allows acquiring information, its analysis and evaluation, and taking decision accordingly. The decision will then be communicated to the forces or field personnel for quick mobilization. The management of security operations depends mostly on the speed of transfer of information and fast mobilization of forces.

The system for control and command gives the ability for serving the forces through the flexible utilization of its controllercom of communication networks, information and surveillance systems. With this system, the following are made easy:

• Surveillance and communication process.
• Collection, storage, analysis and retrieval of data.
• Decision making and giving orders.

The system also provides for a comprehensive coordination between the various police administrations according to hierarchy, organizational structure and ranking to maximize the efficiency in management of the security operations.

Strategic objectives of the project

• Improve the efficiency and performance of the police forces in managing security operations in the state.
• Provides the ability in utilization of modern technologies like surveillance cameras and communication and information systems to cope up with the geographical expansion and increase in variety of criminal activities.

General objectives of the project

• Coordination between the various police administrations in exchange of information and easy management of security operations in a speedy manner.
• Maximization of monitoring and control of forces wherever they spread.
• Inclusion of higher leadership in the management of large security operations through putting the state under the security surveillance within the control and command center. This enables giving direct orders and instructions at times of incidences.

- Improving the efficiency of police organs in taking necessary precautions when natural catastrophes and crisis are eminent. By doing so, the impact and losses due to these will be minimized.
- Preserving the secrecy of police operations and its information through separate police systems.
- Decreasing the allocated forces dealing with security situations to appropriate level when the control and command system parts are used.
- Decrease of large losses in lives and property and ensuring the safety of citizens through better management of incidents.
- Developing and maintaining a safe and stable environment that enables development and economic growth in the state and hence in the whole country.

Controllercom of the Command and Control System
- TV cameras system for surveillance;
- Traffic systems (radar, electronic detection of offences, smart traffic lights and guidance screens for easing up traffic jams);
- Communication systems (optic fibers network; Tetra system; GOTA; VHF radios)
- Field surveillance systems (vehicle mounted surveillance cameras and equipment);
- Electronic tracking of vehicles;
- Geographical Information System (GPS);
- Comprehensive security spreading system.
- System for receiving reports on police cases through emergency number 999 at the Rescue Police Administration;
- Police Information System;
- Early warning system;
- Computerized system for criminal works.

Accomplished works
The committee has started implementing its tasks according to the order for its formation and the plan approved by HE X-Minister of Interior in the meeting of 22nd of August 2007. This was according to the following stages:
First: Internal Visits:
The committee paid visits to all the police units in Khartoum State to be exposed to their work and identify their needs. The committee also held meetings to inform officers of all ranks on the project, its objectives and to get their ideas and opinions.
Second: External visits:
The committee made visits to a number of countries to see their similar experiences for benefiting from these. The visit covered China, Emirates, Turkey and Egypt.
Third: Preparation of primary design for the project:
The committee developed a primary design for the project of control and command system and its controllercom. It identified the consultancy services required and took into consideration the outcome of the above mentioned visits.
Fourth: Recruitment of the operational cadre:
A total of 400 technicians holding diploma certificates in the fields of communications, computer, electronics, information technology and electricity were hired as a cadre for operating this system. They were trained on police operations at the localities, police stations and rescue police. Some of them attended a course on computerization of the criminal works and some other technical projects.

First stage achievements:

With a valuable support and funding from Khartoum State Government spearheaded by Dr. Abdel Rahman Elkhidir, Khartoum State Wali, work started in implementing the Command and Control Project. The successful bidders were two companies, namely the Chinese ZTE and DATANET, one of SudaTel subsidiaries. This stage covered the following:

- The main center:

The main center for command and control, traffic control and the main offices were established at the State Police Headquarters. Equipment was fixed in the room and photos were transferred to the main monitor.

- Closed Circuit TV Cameras (CCTV):

A number of surveillance cameras were fixed and data is transferred from these. The cameras are of high quality and are used for security purpose.

- Cameras for detection of crossing at red traffic light:

Cameras have been fixed at important intersections within Khartoum State. Work have been completed in some of these e.g. at the Traffic Intersection which is now at the stage of testing. Upon commitment of an offence, these are cameras that send data on vehicle plate to the main control room. The photograph will be analyzed within the system and an offence will be recorded in the resister of that vehicle with exact time of incident and a photograph for the vehicle at the instant of the offence.

- System for remote control of traffic lights:

This is a system that will be implemented as part of this stage. It will be used for easing up traffic jams and opening way for presidential, ambulance and fire brigade vehicles. The control for this will be from the command and control room.

- Radars for detection of exceeding speed limit:

This stage includes fixing of a number of radars for detection of exceeding speed limits. The locations for these radars are already identified.

- Guidance monitors:

A total of four digital monitors were fixed. The control on these is carried out at the control and command room. These are monitors that help in communicating guidance information to the citizens for using the most convenient road, for easing up traffic jams and for raising awareness. Currently, work is on going to connect electricity to these monitors after being supplied with air conditioning equipment. These are located as follows:

- The entrance to White Nile bridge from Omdurman side near the Medical Corps.
- The intersection of Al-Maona and Al-Baladia streets.
- Africa road at the exit from the arrival terminal of Khartoum airport.
- The roundabout of Buri – at the intersection between Aljamhoria and Obeid Khatim streets.

- **Committee for follow up on implementation of Command and Control Project**