

country focus : Kuwait

According to article number 151 of the State of Kuwait constitution, the law number 30 for the year 1964 was issued concerning the establishment of the State Audit Bureau. Article 1 of that law states that *"there shall be established an independent commission for Financial control which shall be called the State Audit Bureau, and shall be attached to the National Assembly"*.

The main objective of the State Audit Bureau is to maintain an effective control over the public funds based on the specified functions stated in the establishing law which include its control upon:

1. The Ministries, Departments and Public Agencies which constitute the administrative system of the state.
2. The Municipalities and all other local bodies that have a public legal entity.
3. Public commissions, establishments and organizations attached to the State, or the municipalities or the local bodies that have a public legal entity.
4. Companies and establishments in which the State or any other legal entity holds a share of not less than 50% of their capital or guarantees them a minimum profit.
5. Companies licensed to utilize or manage one of the State public utilities or, granted a concession to utilize any of the natural resources in the State.

The State Audit Bureau follows two procedures of financial control. They are the Prior control and the Subsequent control. The Prior control is performed upon contracts and tenders with values of One hundred thousand Kuwaiti Dinars and above. The Subsequent control is performed upon all the financial transactions carried out by the entities subject to the State Audit Bureau Control.

The State Audit Bureau (SAB) has a total of 450 employees and is expected to reach 550 employees or more by the year 2000 due to the increase in duties of SAB. Figure (1) shows the top management at SAB.

Establishment of the IT Department

The wide scope of financial control, the increasing responsibilities of inspections that the **State Audit Bureau (SAB)** is assigned to and in order to cope with the current responsibilities of the prior control procedures and the issuance of Law No. (1) for the year 1993 regarding safe-guarding of the public funds, have necessitated the need to develop the State Audit Bureau's works

Figure 1 : SAB Top Management

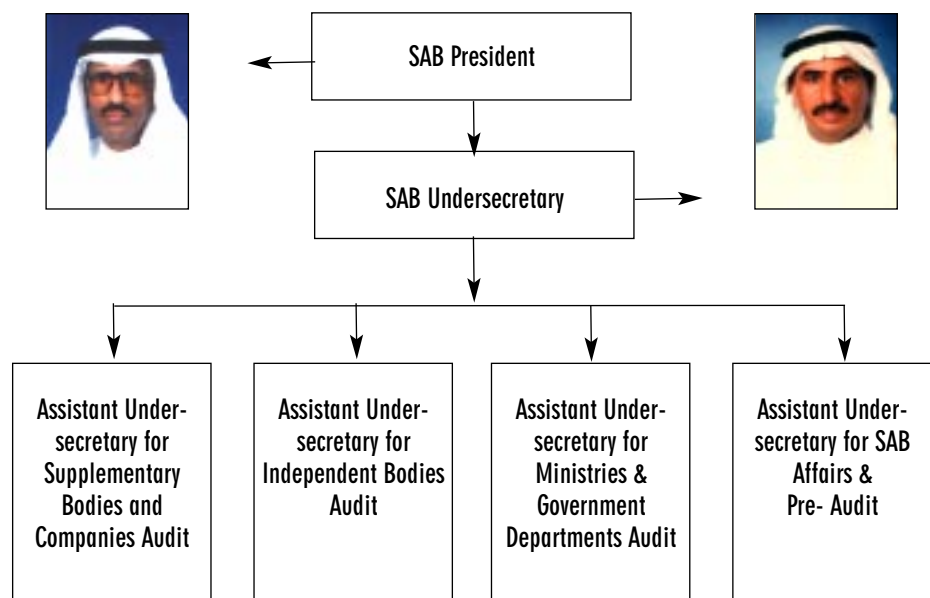




Figure 2 : a view of the IT Department

and procedures in its different departments. Because of this and for the desire of benefiting from the information available at the different governmental institutions, an **Information Technology Department** was established in September 1994 for the purpose of assisting the State Audit Bureau's staff in achieving effective control.

It has three sections:

- (1) Technical Support Section, which supervise the network support unit and the systems support unit.
- (2) Information Systems Auditing & Planning Section, which supervise the information systems audit unit, the users support unit and the computer planning unit. And
- (3) Application Development Section, which supervise the project development unit and the project planning & follow up unit. Figure (3) shows the department organization chart.

The Goals and Objectives of the IT Department

Goals

- Full support of SAB's staff to achieve maximum benefit from IT department services and resources, by insuring the availability of up-to-date and timely information.
- Building complete and integrated information systems, and providing user support and training services on the latest Information Technology.
- Performing the IT Audit of governmental projects.
- Cooperation with other governmental IT departments through sharing experience, resources and new ideas.
- Develop and maintain the IT Library, according to the newest and best developments in the field of information technology. Also to acquire the specialized information sources needed, and provide access to in-house materials and information resources elsewhere.

Objectives

- Supervising the analysis of SAB needs for information technology, and related databases. Designing and developing IT systems to meet these needs.
- Assuring the quality and integrity of the process of collecting and classifying information related to IT and its applications, and working to increase the effectiveness of the primary users.
- Supervising placing specifications and technical standards according to authorized procedures for contracting.
- Installation, operation and maintenance of the primary and secondary information systems.
- Establishing, managing and protecting database systems.
- Supervising all information technology related functions in the Bureau and providing training in this field.
- Identifying and describing information systems auditing methods and curriculum and the required measurement techniques for auditing and evaluating how far auditors are complying with these procedures through coordination with the State Audit Bureau's different departments.
- Providing technical support to all auditing units in the bureau for 'information technology auditing' in all bodies that are subject to the bureau's control.

Information Technology Audit

One of the objectives of the IT Department is to enhance its overall auditing role in order to meet the challenges of the different work environments in the country. The IT department also assists in the continuous addition of new technologies depending on the nature of work for every department and its capacities and objectives. It is obvious that there are many risks raised within the automated work environment like changing, or manipulating, or disclosing data and even deleting or destroying it. Therefore, it is important to protect the system and to deal with emergency cases by making plans to face any kind of disaster.

It is known that most of the state bodies, subject to the SAB control, have changed their financial systems to automated systems to facilitate searching and extracting data by the auditor. On the other hand it puts the auditor in an uneasy situation, that is whether or not the data can be trusted or has gone through all the procedures that ensures its soundness and safety, to arrive at the correct results concerning the financial status.

From this point, the IT department realized the importance of the role of the technical auditor qualified in information technology, and also the

importance of the department's role in supplementary and independent bodies. The IT department has conducted many meetings with the departments of the supplementary bodies to outline the activities that it could provide. The department has also trained one of its staff members to a high standard, to perform the job "auditing on information technology", to guarantee that it follows the international standards in performing its duties. However, the department at present, wishes to train more of its staff in this field.

The IT Department plays a major role in conjunction with the Pre-Auditing department through studying the different contracts that come to SAB for approval. Most of the IT staff contribute to the Pre-Auditing activities, each in his or her field, whether in networks, databases, developments or operating systems. The IT Department has shown a great deal in the past 4 years by safeguarding public funds and efficiently utilizing them for the aspects they have been allocated for.

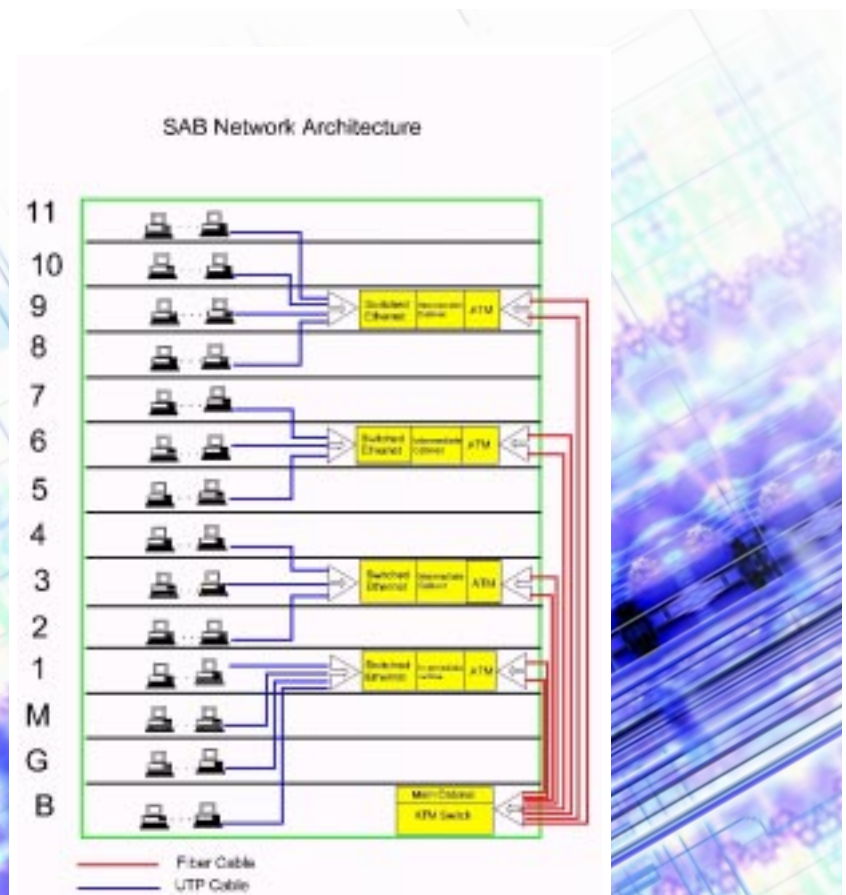
SAB new Building's Network Design

SAB was proud to announce that the new 11-story building network is the **first ATM** project in Kuwait, The building was commissioned in August 1996. The IT Department has chosen the best products available in the market for both the cabling system and the network devices. (Figure 4).

Cabling System

For the cabling system, the IT Department has chosen the **AMP Open Wiring System**. AMP is considered the largest manufacturer of connectors and connecting equipment including fiber. The cabling system was designed to meet the present and future requirements of (SAB), and it follows the international cabling standards of EIA/TIA 568A & ISO 11801. The IT Department used fiber cables for the vertical backbone and UTP CAT5 cables for the horizontal floors.

Figure 3 : IT Department Organization Chart



Network Design

For the network devices, the IT Department has chosen **FORE Systems**, a worldwide leader in **ATM LAN** and **WAN** products. The network design is a new architecture of intelligent multi-protocol, Ethernet switches to the desktop, and ATM backbone switches for connecting users to the network resources. This design provides the following:

- Modularity
- Flexibility
- Redundancy
- Fault Tolerance
- High speed backbone
- VLAN routing between all logical virtual LANs
- No single point of failure

Hardware

The initiation of the IT department in 1994 was followed by a rapid growth of computerization in terms of number of PC's employed and types of applications covered. There are 230 PC's available within the different departments in SAB and 4 Servers in the computer room. Also, there are 16 Notebooks computers available at the IT Department for any auditor to borrow. The next step for the IT Department will be buying 4 departmental servers. These servers will act as:

1. Development Server
2. Production Server
3. Database Server
4. Web Server

Software

Standard Software: There are number of standardized windows-based software packages that are used in the IT department and other departments in SAB, to name a few: Windows95-Arabic enabled, MS Word, MS Excel, MS PowerPoint, MS Access and MS Project.

In-House Developed Software: Application software is mostly developed in-house using **PowerBuilder** as the front-end development tool and **Oracle** as the back-end database engine. Persons showing aptitude have been trained in systems analysis and design and programming and formed into software development teams.



Internet and Intranet

It is esteemed by SAB, that it is considered as one of the foremost governmental organizations to have initiated active utilization of the Internet. During the establishment of the IT Dept. (October 1994), the Technical Support team analyzed and reported that extensive and proficient use of the Internet would enhance the latest technical knowledge and result in many improvements. Hence, SAB began their own training on Internet and their own cyber research. The machine, which hosts the Internet Web Server, is a Compaq Proliant 1000 server running SCO UNIX operating system. The IT Dept. staff members have launched a successful Website running on the Internet. The new address of the site is www.sabq8.org (previously audit.kuwait.net). This site includes the following information:

1. Information about Kuwait State Audit Bureau
2. Collection of related sites that may help the SAB employees in getting information related to their work.
3. A small directory of web pages in Kuwait.
4. A list of search engines to conveniently search the web.
5. A list of newspapers and TV stations.
6. A Guest Book for comments and remarks.

The IT Dept, in co-ordination with the SAB training center has organized many training sessions to train the SAB employees on using the Internet properly. A proper procedure has been written to encourage the staff to build their own home pages, offering a variety of information.

The SAB employees have also been given email accounts and are trained on using the electronic messaging system efficiently.



Along with the latest advancements in technology, SAB is also progressing towards prospective changes. SAB has now established an Intranet for the internal use of SAB's employees. The Intranet site contains the following:

1. Information and reports
2. Automated services
3. Bulletin Board
4. Access for remote users
5. Address book of Telephone numbers and addresses of SAB and SAB Staff.

Training

To carry out the State Audit Bureau training strategy in the field of human resources training, the IT Department coordinated with training, research and international organizations to train the SAB staff and to enrich their knowledge and skills in the IT field. They also established a training path for each staff member to create and build strong skills in each section/unit, such as analysis, planning, technical support, system support, users support, information auditing and application development projects.

This training plan has resulted in numerous employees receiving certification in a variety of different specialties. At the moment the IT department has skilled and certified professionals structured as two SCO ACE (Advanced Certified Engineer), three CNE's (Certified Novell Engineer) and one CISA (Certified Information Systems Audit). Meanwhile the other IT staff members are advancing towards various distinct skilled professional certifications, in accordance with the training plan.

The IT department had also started its in-house training program for SAB employees in 1995 on the different standard software packages. The department has setup 2 computer labs equipped with 18 PC's, projectors and data shows. Figure (5) shows one of the classes that are being conducted periodically in SAB.

Figure (5) An IT class being conducted in SAB premises

So far, the IT department has given 78 in-house training courses and about 550 employees have benefited from these courses. Among these courses are WIN95, MS Word, MS Excel, MS PowerPoint, Internet, Office Automation and Trouble Shooting.