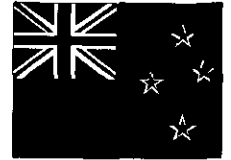


Audit and Computerisation in New Zealand



Introduction

Mark O'Connor
*Director of Information
Systems Audit*

Summary

This is the first of two articles that looks at extent of computerisation in public sector organisations audited by the Office of the Auditor-General of New Zealand and the extent of computerisation in the Supreme Audit Institution. It outlines current status of computerised government accounting systems, the audit standards applied by the Supreme Audit Institution and the key steps in the audit approach.

A second article that will appear in Edition 8 of intoIT will take a more detailed look at the use of Computer Assisted Audit Techniques (CAATs), and draw together the key features of the New Zealand approach.

Computerisation in Auditee Agencies

The Audit Office is appointed to be the auditor of nearly all public sector organisations in New Zealand. Auditee agencies include:

- Government departments;
- Education authorities;
- Crown entities and crown-owned companies;
- Regional and territorial local authorities;
- Various other statutory authorities and companies.

In all the total number of auditee organisations is in excess of 3500 of which some 2700 are schools. Such a large number of organisations undertake a diverse range of activities and produce very different outputs. Consequently the computing environment used within these organisations is also quite diverse.

The New Zealand Government does not operate a central computer facility and each auditee organisation determines its own requirements in terms of computing facilities and associated environment. These environments currently cover most platforms and include use of:

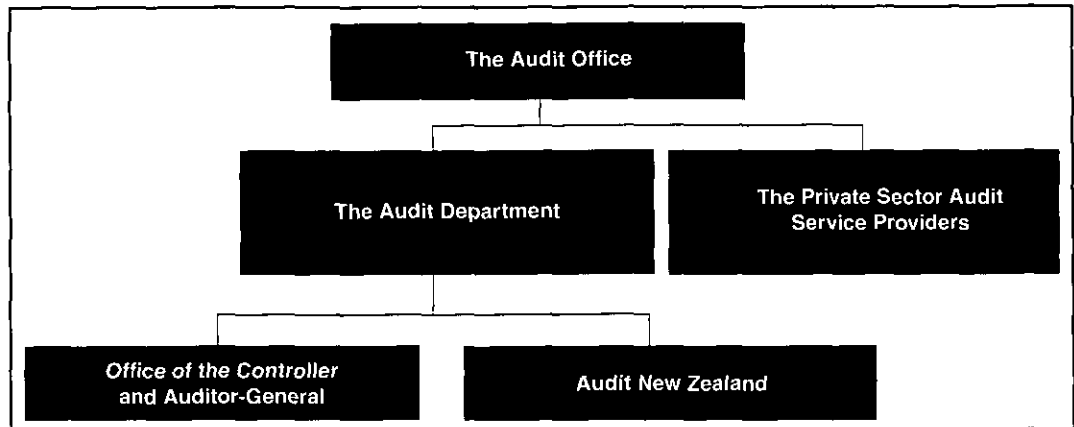
- Centralised mainframes
- Local area networks
- Facilities management contracts
- Wide area networks
- Bureau services
- Standalone computers
- Client servers

A range of proprietary, packaged and in-house developed software is utilised. Operating systems include Novell, MVS, DOS, Windows (95, NT and WFW), VAX/VMS, OS400, and UNIX (in numerous variants). Both local and wide area networks are extensively used and an increasing number of organisations have connections to the Internet and other online facilities. Office automation applications such as Microsoft Office are widely used.

Computerisation in Supreme Audit Institution

The SAI consists of two statutory entities: the Audit Office, which comprises the Controller and Auditor-General and Deputy, and the Audit Department. Staff directly employed by the Controller and Auditor-General represent the Audit Department and since December 1992, the department has been organised into two business units:

- The Office of the Controller and Auditor-General (OAG) - which is responsible for assisting in strategic audit planning, setting standards, allocating audits, overseeing auditor performance, and Parliamentary reporting and advice. A total of 43 staff are employed within the OAG;
- Audit New Zealand (Audit NZ) - which is responsible for the conduct of all audits (other than those which private sector auditors conduct on behalf of the Audit Office). A total of 232 staff are employed within Audit NZ.



The computing environments of the two business units are completely separate. Currently these environments are as follows, however they are changing in line with strategic plans:

Office Of The Auditor-General (OAG)

Staff	Fileservers	Workstations
43	1	41

The OAG operate a Novell local area network with connection to the Internet. Approximately 35 Digital Desktops are installed along with several Toshiba laptops. Within the OAG the Information Technology department (as part of the Corporate Services Division) has responsibility for developing and implementing information systems. Applications are not internally developed as packaged solutions are the preferred option. Training for staff is achieved through a combination of self study, on-the-job training, formal professional development programmes, and external courses, conferences as appropriate.

Audit New Zealand

Staff	Fileservers	Workstations
232	10	180

Audit New Zealand has seven local area networks connected via a Frame Relay wide area network. The network has been set-up as a single domain with centralised administration from National Office in Wellington. Windows 95 is used on the client (desktop and laptop) computers while Windows NT is used on the servers. Separate application-servers (also connected to the network) for the financial and time/cost systems are maintained in Wellington.

Servers are predominantly Compaq Prosigna or Digital Alpha models with between 40 and 128Mb RAM and 1-6 Gb hard drives. Workstations are generally Digital (486 and Pentium) Desktops (total number approximately 40) while laptops are either Toshiba (486 and Pentium) Notebooks or IBM ThinkPads (total number approximately 183).

Within Audit New Zealand the Information Technology department has responsibility for developing and implementing information systems. The manager is responsible for strategic direction and the management of day-to-day support of IT systems. Staff in the department include a database and network administrator, responsible for maintaining the network, performance and security, and a support person responsible for PC support, including initial set-up. As with the OAG, applications are not internally developed as packaged solutions are preferred. The Information Systems Audit department has responsibility for conducting audits at auditee organisations.

Training

IT competencies are part of all position descriptions. Staff are required to develop and maintain their competency in the use of Audit New Zealand's technology applications. Training is generally focused on specific applications and is, therefore, different depending on staff level. As a new application is released (for example our Audit Guidance application using Lotus Notes) a training programme is delivered as part of the implementation process and a user Quick Reference Guide is issued. For general use applications, such as Excel and Word, Local Office training programmes are developed according to the requirements of staff in each office.

Training for the few staff involved in CAATs work is provided by a combination of on-the-job training and, as required, external courses provided by the SAS Institute.

Training for staff in the IS Audit area is achieved through a combination of self study, on-the-job training and external courses/conferences as appropriate. The Information Systems Audit and Control Association (ISACA) provides regular training seminars and courses, along with newsletters and other publications. It is expected all IS auditors will attain the Certified Information Systems Auditor (CISA) designation.

Computerised Government Accounting Systems and Verification of Account Balances

Historical background and current status of Computerised Government Accounting Systems

The New Zealand Government does not operate a computerised government accounting system as auditee organisations are free to determine their own requirements. This is largely due to the significant developments in the organisation of legislative arrangements in New Zealand over the last few years. The State Sector Act 1988 established a new model of public sector management. Under the Act the relationship between Ministers and top officials is significantly different from other Westminster systems. While Ministers remain accountable to Parliament at a macro level and are responsible for providing policy decisions, the chief executive of each department is responsible for providing policy advice and achieving the agreed production of outputs. The Public Finance Act 1989 became a key pillar of public service reform and introduced a substantially different system of financial management and accountability. Key reforms associated with the Act include:

- Departmental Operations - Financial management and control has been extensively devolved from central control agencies to departments. Chief executives are responsible for financial management, financial performance and accounting systems.
- Reporting - In addition to the requirement for audited consolidated Crown financial statements, each department is required to report performance in non-financial as well as financial terms through a statement of service performance together with its annual accounts.

These various changes have had a profound effect on the way public business is conducted and the systems used to manage and account for performance. Systems are therefore varied and cover the entire range

of computing services from in-house, managed facilities and outsourced mainframe and network services through medium range mini systems and local area networks to small personal computer systems. Generally computing facilities of auditee organisations do not interconnect. Some data matching occurs between specifically named departments (for example Inland Revenue and Social Welfare), however where personal information is concerned these arrangements are prescribed by law (the Privacy Act) and covered by detailed agreements.

Reporting

The Public Finance Act transformed the financial reports produced by public sector organisations. Full accrual accounting by all individual government departments was followed in 1992 by the preparation of accruals-based financial statements for the government as a whole. The majority of auditee organisations are required to prepare the following on an annual basis:

- a statement of financial position;
- a statement of financial performance;
- a statement of commitments;
- a statement of cash flows;
- a statement of contingent liabilities;
- a statement of accounting policies;
- a statement of objectives;
- a statement of service performance.

The information provided in the new financial statements exceeds that produced by companies in the private sector and go a considerable way towards meeting objectives of public accountability. All annual financial statements must be audited by the Auditor-General. Audits are subject to a tendering process and the OAG purchases auditing services from Audit New Zealand as well as commercial audit service providers.

SAI verification of Account Balances

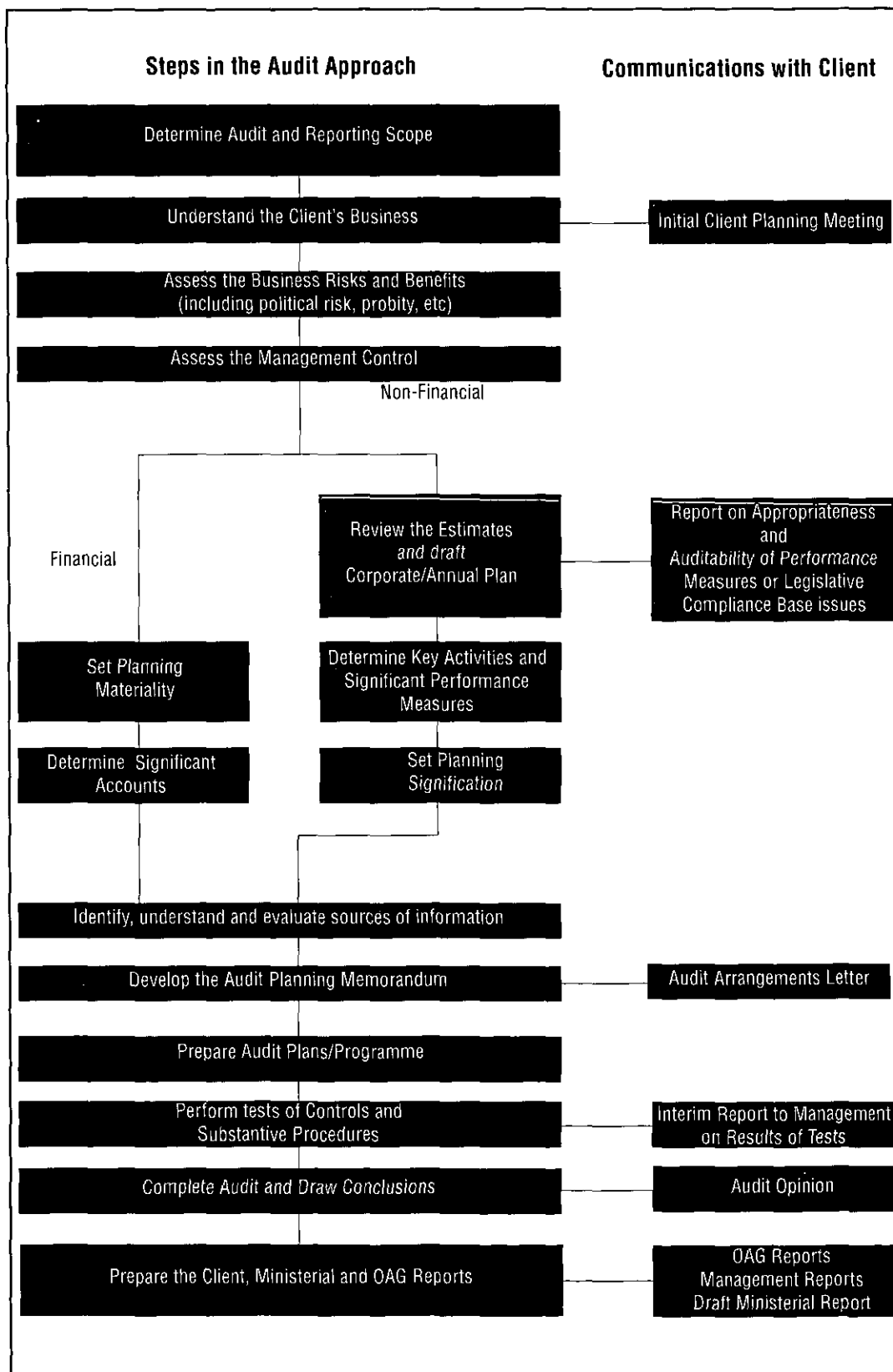
The auditing standards to be applied in the conduct of an audit are specified in an assignment contract with the Office of the Auditor-General. These standards may be varied from time to time, however at a minimum the auditing standards of the New Zealand Society of Accountants must be applied to all audit assignments. Other work must be conducted in accordance with the appropriate professional standards.

There are four specific core audit objectives:

- to report on the fair presentation of the statements of account;
- to provide assurance that relevant legislation has been complied with;
- to report to management on significant matters arising from the audit;

- to report to the OAG in accordance with current policy guidelines.

An overview of the audit approach adopted for the attestation audit is represented on the following diagram:



The role of information system auditors in Audit New Zealand is to provide a computing audit service, firstly to the engagement directors in the office and secondly to auditee organisations.

Our computer audit approach is risk-based, and broadly, our methodology and areas of audit include the following:

Environmental Review and Application Overview

This process is essentially an information gathering exercise, performed as part of the overall audit approach of assessing the client's management control environment. In this exercise, we document the client's hardware and software, including an overview of all applications run by them. A key client service performed as part of the review is an assessment of general controls in the major risk areas of Security, Contingency Planning, and Change Control. Output from the review is a management report containing our assessment, identifying any weaknesses, and making recommendations for improvements.

Application Reviews/Testing

Significant applications are identified in the Environmental Review. If general controls are assessed as being adequate and the attest

auditors wish to place reliance on these controls for audit purposes we may be called upon to perform either, or both, of the following:

- tests of general controls, such as security and change control;
- review a specific application/system addressing the following risk areas:
 - completeness, accuracy and authorisation.

Add-On Services

These can, and do, include all types of computer auditing products. We have completed, for example, a number of exercises reviewing the integrity of tendering and evaluation procedures when auditee organisations have issued Requests for Proposal for new computer systems or services. Auditee organisations will also contract our involvement in systems development and implementation projects to provide an audit perspective and assurance that risks are being minimised by the implementation of appropriate controls. A key target area is the conversion of data from the old system.