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Computer Strategy for a Large Law Firm

by Andrew McBurnie*

Introduction

"Computer Strategy" means formulating a set of high-level guidelines to be followed during the process of specification and evaluation of new computer systems, and the continuing development of these systems.

As in many topics at this level, concrete examples are easier to understand than generalities. Here are some elements of a computer strategy proposed for one large law firm:

- an emphasis on networks of small computers rather than a large central mainframe, primarily in order to minimise the disruption of breakdowns;
- (ii) the use of standard technologies to keep options as wide as possible for future developments, and to minimise dependence upon systems unique to a single vendor;
- (iii) the principle that, in a law firm, the major function for computer systems is the efficient and effective

processing of large volumes of text, produced by word processing. In an integrated environment, traditional data processing applications should be selected for their ability to fit in with text processing systems, not the other way around;

- (iv) an incremental approach towards wide—scale office automation, developing an integrated system using word processing as the starting point;
- (v) the planning and requirements specification process for a data processing system should be much longer than usually allowed by most law firms the time to begin is in the middle of the life of the old system.

In this Issue
An International Role
Sales Tax
Society News
Employment Contracts
The Lawyer's Desktop

Emphasis on Networks

Today, only organisations like banks, insurance companies and airlines really have a need for large, centralised computer systems with hundreds of computer terminals connected to a single machine. They process huge volumes of transactions which must be coordinated and summarised daily, hourly, or even to the minute, and rapidly communicated. These organisations might collapse within hours if their computer systems fail, and, driven by such business requirements, they spend vast sums on large central computers, with sophisticated fault tolerant equipment and backup systems.

Law firms are different.
Compared to banks and airlines, their data processing needs – accounting, etc – are trivial in terms of computer power requirements. A law firm, however, processes many thousands of documents in its word processing systems. The documents are usually unrelated, and the firm is often split into several areas of legal

practice which need relatively little coordination.

It makes more sense for a large law firm to achieve a reasonable level of reliability, at a lower cost, by having many small computer systems, each supporting relatively few terminals, yet connected together in order to achieve the coordination and communication that is required. When one small machine fails, only part of the organisation is affected, not the whole firm.

A network of smaller machines also allows upgrades in smaller increments. If there is a single large machine, there is more likely to be a large amount of capital invested in unused capacity, in readiness to add more screens. Hence the opportunity costs for a central machine may be high.

Standard Technologies

The common practice of computer suppliers for many years was to lock their customers in with proprietary programming languages, proprietary ways of storing data, proprietary ways of transmitting data, unique operating system features, special hardware, etc. Once an organisation becomes dependent on its computer systems, and those systems have only one supplier, its negotiating position is weakened because the expense and potential disruption of converting to an alternative can become too great.

What is meant by "standard technologies"? Think of

Australia's different gauge railway systems. Computers have more areas of difference, as indicated above. In the last ten years, standards bodies such as the I.S.O. and the I.E.E.E., driven largely by the demands of computer users, have been moving against this. The process of standardisation in computers is far from complete, hence computer experts are needed to thread their way through the tangle of competing technological standards. The ultimate purpose is to allow different systems to be connected together as easily as different railway carriages.

The main use of "standard" computer technologies whenever possible is to heighten the chances of connecting different equipment, and, as outlined above, to ensure that competition between suppliers will be maximised.

"Text" Processing the major application

The phrase "text processing" is used deliberately in preference to "word processing", since it is also meant to encompass free text information retrieval, the administration of precedents, and even electronic mail.

Note that, in this area, we are talking about more than the reliability of word processing. Although it is vital to the large law firm that word processing downtime be minimised, we are also suggesting that, as a matter of policy, data processing

NEW SOUTH WALES SOCIETY NEWS

Our last publication generated a considerable degree of interest. Fiona Crosbie, the author of the article "The Chamberlain Inquiry Database", has been asked to present a paper at a forthcoming conference for the Australian and New Zealand judiciary on litigation support.

Other recent achievements include the release of the "Australasian Computerized Legal Information Handbook" by David Lewis committee member, Graham Greenleaf past Secretary of the Society and Andrew Mowbray Lecturer in Law, University of Technology. A review of the book will be included in our next edition.

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computer applications such as accounting should be selected to fit in with the text processing systems, and should not be the major driving force behind the computer selection decision. Accounting is one of the back-room "bread and butter" aspects of computer systems. Text processing directly affects the work of professional staff. Text processing has more potential for major pay-offs, in the saving of professional staff time, and in offering the opportunity to provide new levels of service, and totally new services, to the firm's clients.

Incremental Approach

As Professor Warren McFarlan of the Harvard **Business School has** emphazised, the usual approach to planning and acquiring data processing systems appears to be inappropriate for office automation. Data processing applications now have fairly well understood uses and implementation. Office automation technology however is in an experimental stage, as data processing was in the sixties. People are still discovering its uses.

Data processing and office automation are hence at different stages of assimilation in most organizations. This is why a law firm needs to have a cautious, incremental approach, and should keep its options as wide as possible.

Practice management (data processing)

COMPUTERS & LAW NEWSLETTER

While text processing is easily the most expensive use of computers in a law firm, they also have to keep accounts, monitor performance, keep personnel records, etc. They need a "Practice Management" system.

The strategy should be to concentrate on planning. Large law practices should not buy a Practice Management system off the shelf, and modify it on an ad hoc basis, to satisfy requirements that were ignored or more probably forgotten, in the specification. Too often, the scale of the modifications comes as an unpleasant surprise. This results from not doing enough work on the requirements specification.

There are several advantages in spending time to develop a detailed written specification:

- (i) a formal requirements specification commits software suppliers to definite specifications;
- it allows the firm to (ii) compare market offerings against its *needs*, instead of simply comparing competing software packages against each other, and, by identifying areas where modifications are required, results in more accurate cost comparisons;
- (iii) the requirements development process, if

it involves all those who will use the system, ensures that all relevant business policy issues affecting the computer requirements will be identified, and that all possible areas for integration between functions are identified – in fact, that a discovery process takes place;

(iv) the requirements document can continue, for the life of the system, and beyond, as a nontechnical, businessoriented description of the system. It should be kept up to date, as subsequent changes are made to the system. When new requirements arise, it should be the document which is consulted first to plan and specify the changes.

It is important that a large law firm is not "panicked" into deciding that there is no time to do this job properly. This often happens because the law firm leaves all computer decisions until the last minute. Large buildings are not constructed by people wandering on to the site with some bits and pieces and hammering and nailing until a structure starts to rise. Such a structure would probably crumble. Why should a computer system be any different?

The last item in the computer strategy is to ensure that planning a replacement system begins in the middle of the life of the old one.

Conclusion

The development of a computer strategy for a large law firm is too important to be left merely to computer experts. The development of such a strategy, while requiring a contribution from technical experts, is not primarily a technological exercise. For a large law firm, it involves making

decisions about the issues described above, and allocating priorities for computer usage. There are a host of associated business decisions such as whether it is desired that all professional staff should have a computer terminal on their desk, and integration issues such as whether or not the firm wants to charge clients for services such as word processing and

the use of particular precedents.

Organisations which do not have a computer strategy, or have one and do not enforce it, will merely drift on the tumultuous ocean of computer technology – and any ocean can be a dangerous place.

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AN INTERNATIONAL ROLE

In June 1988, the Computer Law Societies of Belgium, France, Germany, Holland and England came together to establish an International Association known as the "International Federation of Computerlaw Association". The New South Wales Society has been offered and has accepted membership of the newly formed International Association.

The objects of the Association as described in the Articles are:—

 to stimulate an exchange of scientific views with regard to the development and the legal, economic and social effects of computer law;

- to organise conferences on these themes;
- to co-ordinate the activities of the members with European institutions and other international organisations dealing with computer law information.

The Association may do all things directly or indirectly relating to its objects in particular collecting, disseminating and publishing the existing scientific studies or expert opinions relating to Computers and Law.

The headquarters of the Association is to be in Brussels. There shall be a General Meeting at least once a year, which may be held at places other than the headquarters in Belgium.

The Society welcomes the opportunity to become a member of an international organisation dedicated to the development and furtherance of computer law. It is hoped that membership will provide our Society with a forum for the interchange of ideas on an international level.

Elizabeth Broderick