Justice Sector Information Strategy

"Informing the justice sector"

Ministry of Justice

New Zealand

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Foreword

The justice sector includes many of the key institutions of state. Between them they seek to provide our society with a fair and stable social and economic environment. High quality, timely and relevant information is essential for achieving this objective.

Over the past few years many commentators on justice matters both locally and internationally have emphasised the urgent need for better access to good information. The development of policies and programmes, the management of operations, the monitoring and evaluating of progress and research into the causes, impacts and responses to justice issues are all reliant on robust information.

The recent restructuring of many sector agencies and the increasing awareness of the role information plays both highlighted the need for on-going co-ordination of information initiatives in the justice sector and provided the opportunity to address the issue.

In May 1995 Cabinet approved the development of a justice sector information strategy. The aim was to enable information collected by one agency to be shared with others in a cost effective and efficient manner while at the same time respecting privacy and confidentiality.

The resulting strategy approved by Cabinet in July 1996 is set out in this document. It seeks to ensure that relevant, accessible and timely information is available to support the business needs of all agencies in the sector and that access to information and effective investment in information technology is managed in a coherent manner across the sector.

This strategy document is the product of a major co-operative effort involving key sector agencies, users of information and others with an interest in information and information management. I am delighted to see the commitment to working together to improve the quality of our information resources and applaud the efforts made by all involved. The next stages will be challenging but I believe that together we will ensure that the New Zealand justice sector moves with confidence into the 21st century. I look forward to being involved

Douglas Graham Minister of Justice

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Executive Summary

Overview

This strategy document is the product of a major co-operative effort involving key justice sector agencies, users of justice information and others with an interest in information and information management. The recent restructuring of many sector agencies together with the establishment of the Ministry of Justice and the core operational agencies has highlighted the need for ongoing co-ordination of information initiatives (Cab (94) M48/13).

All agencies recognise that high quality information is essential for the effective and efficient operation and performance of the justice sector. Cabinet and key agencies agree the development of an integrated justice information strategy is a high priority (Soc (95) M 5/3).

The strategy addresses the needs and interests of the agencies involved in the delivery of criminal justice services. These are represented by a core group comprising Police, Ministry of Transport, Land Transport Safety Authority, Department of Social Welfare, Department for Courts, Department of Corrections and the Ministry of Justice. There are, however, an extensive range of related interests represented by other central government agencies such as Te Puni Kokiri, Statistics New Zealand, the Ministry of Women's Affairs and other users of information such as researchers and the Law Commission.

The medium term objective is to extend the scope of the strategy to encompass other elements of justice sector activity, to the extent this is necessary and appropriate for the effective management of the sector.

Vision for Justice Sector Information

The overall justice sector vision seeks a fair and just society serviced and supported by high performing agencies that use information appropriately to manage and advise on justice matters.

The achievement of this vision depends on the development of a sector that provides timely access to accurate, consistent data which are held in a safe and secure environment and are used and shared as appropriate. Thus the vision for justice sector information is:

To ensure that relevant, timely and accurate information is available and accessible to authorised users to support the business needs of all agencies in the justice sector and their customers and to monitor the justice environment.

Why a justice sector information strategy?

Within the justice sector information is needed to:

- measure progress towards establishing secure communities as a contribution to a cohesive society;
- develop and evaluate justice policy;
- allocate resources to better achieve desired outcomes;
- monitor the effectiveness of the justice and legal systems;
- guide and inform operational decisions;
- measure and optimise operational procedures;
- monitor the effectiveness of justice sector agency programmes; and
- identify and monitor current and emerging justice sector issues.

The need for an integrated justice sector information strategy is driven by a number of factors. Firstly, the restructuring of the sector has focused individual agency attention on the information and technology required to support their business and improve operational efficiency. Much of the information used in the sector, however, is of value to more than one agency. Indeed the continuum of activity from prevention to rehabilitation and investigation to enforcement ordinarily involves two or more agencies. This has highlighted the need for coordination to ensure that effective sharing of information can take place.

Secondly, there are concerns regarding quality of existing data sources and systems. Changing business needs and different approaches to information and technology development; significant levels of data inaccuracy; different approaches to how data and information are defined, stored, accessed and managed; and the need to integrate manual and electronic systems have all limited the value and use of existing data collections. For the justice sector to be the official credible source of key justice sector information in the year 2000 these issues need to be addressed. Finally, significant changes in the use of the Wanganui computer system are occurring. The common information systems normally referred to as "the Wanganui system" have provided the central base for information processing across the sector for many years. The Ministry of Transport has now moved off that system and Police plan to cease supplying and accessing information over the next two years. Department of Corrections and Department for Courts are also planning to move off the Wanganui system over the next five years. Access to sector wide information, and mechanisms for cost effectively sharing information are key concerns highlighted by this trend.

Objectives of the strategy

The major objectives of the strategy are to ensure that:

- relevant, accurate and timely information is available to support the common business needs of all agencies in the justice sector and their customers;
- individual agency investments in information technology are made that take account of the broader needs of the sector as a whole, and those investments maximise potential for sharing information and minimise duplication of effort and cost;
- sharing of and access to information is cost effective and managed within a framework that ensures all pre-existing rights and obligations are maintained; and
- the quality and accuracy of the information resource in the justice sector is equal to world class standards.

Key elements

Key elements for achieving these objectives have been agreed. They are:

- using agreed principles and protocols for the creation, collection and handling of common information;
- defining, maintaining and developing the core common datasets;
- providing the means to access and share core information safely and securely;
- consistently using standards for data, terms, technologies and systems;
- using network and communication technology to facilitate the exchange of information;
- respecting the privacy of individuals;

- complying with legislative requirements;
- introducing regular reporting and updates of information on justice matters including comparative data;
- on-going review of information collection and management priorities and practices in light of changing policy objectives; and
- cost effectiveness.

The implementation of these elements must be driven by:

- best practice information management principles such as those outlined in the Privacy Act 1993 and Statistics Act 1975;
- the strategic objectives of the justice sector as set out in the Government Strategic Result Areas;
- the public accountability of the justice sector; and
- the efficient management of sector programmes.

Guiding Principles

The following principles will govern the collection, retrieval, access to, use and disposal of core common justice sector information:

- information is a strategic resource managed throughout its life cycle by the Crown on behalf of the public;
- information needs will be aligned with the business needs of individual justice sector agencies and the sector as a whole;
- where practical and cost effective, information will be collected once and shared by authorised users;
- privacy and confidentiality will be maintained;
- common definitions for shared justice sector information will be agreed to and implemented;
- shared or common information will be audited to ensure integrity and consistency of use;
- the collection, use and disposal of information will be subject to legal requirements, for example the Official Information Act 1982, Privacy Act 1993, Archives Act 1957, Copyright Act 1994 and Statistics Act 1975;
- information technology systems in the justice sector will be operated in accordance with agreed standards which allow access and sharing of common core information; and

• justice sector agencies will progressively make official information easily and widely available.

Each of these principles translates into a set of behaviours, policies, procedures, and technology requirements that assist the sector in implementing the integrated information strategy.

Critical Success Factors

The following factors will be critical to the successful implementation of the strategy:

- the commitment and support of justice sector agencies;
- flexibility to meet the changing needs, differing stages of development and competing demands of the individual agencies and the sector;
- ensuring individual rights to privacy are protected;
- timely access to relevant, consistent sector-wide information;
- ensuring that the quality of information can be measured and audited;
- ensuring acceptability and implementation of common core data definitions when sharing information;
- commitment to sharing information where appropriate;
- improving the value of existing core datasets and using them productively; and
- ensuring clarity and understanding of access rights and protocols.

Definition and scope

For the purpose of this strategy, the justice sector includes all the institutions of state which are directly involved with the specification, purchase and delivery of justice related services.

These services range from the investigation and prosecution of alleged criminal acts through to the resolution of disputes between individuals and agencies. Within their widest definition they encompass: prevention, deterrence, diversion, arbitration, mediation, conciliation, adjudication, restitution, compensation and education. They also include the review and development of policy and the specification, purchase and delivery of associated services.

In the first instance the strategy will address the needs and interests of the agencies involved with the delivery of criminal justice services. These are represented by a core group comprising Police, Ministry of Transport, Land Transport Safety Authority, Department of Social Welfare, Department for Courts, Department of Corrections and the Ministry of Justice. There are however an extensive range of related interests represented by other central Government agencies such as Te Puni Kokiri, Statistics New Zealand, the Ministry of Women's Affairs as well as other users of information such as researchers, the Law Commission and others.

Eventually the strategy will impact on all organisations which are involved in the provision of criminal justice services and other justice services to the extent it is necessary and appropriate for there to be common standards for the collection and exchange of related information.

The medium term objective is to extend the scope of the strategy to encompass other elements of justice sector activity, such as the family or civil jurisdiction of the Department for Courts. The timing of any such initiative is subject to agreement with the agencies involved. Current indications are that this will be determined towards the end of the 1996/97 financial year.

Exclusions

The strategy is **not** about telling individual agencies how to run their business or what information systems to purchase. These are decisions for the respective management teams to make. The strategy offers a perspective which should ensure that the potential sector or collective interests are also taken into consideration in the individual agency decisions.

The development and implementation of the strategy is also **not** a justification for additional investment in information management. The underlying assumption throughout the development process is that effective and efficient management of information is a business-as-usual responsibility for the sector. As such, any individual or joint initiatives to that end would be a normal operating expense, and only where cost justified would additional funding for implementation be sought.

A consequence of this approach is that implementation will be dependent on the capacity of each agency to incorporate any necessary adjustments into the ongoing business development cycle. Given the normal life cycle for an information initiative is three years, it may take that long for the full benefits to be achieved. There should, however, be gains throughout that period as the benefits from the various components of the strategy are realised. If an agency wishes to implement elements of the strategy and seeks additional resources for that purpose they should justify the proposal on its own merits.

Current Environment

The main source of criminal justice information over the past 20 years has been the Wanganui computer system and a number of in-house computer systems. An analysis and assessment of these systems and a stocktake of information resources held by justice sector agencies has identified a number of key issues for the sector.

Common issues emerging from this analysis are:

- justice sector agencies currently rely on the Wanganui computer system as a mechanism for accessing and sharing common information;
- in general, current systems are not viewed as providing the necessary functionality or flexibility to meet changing business needs;
- no one system will meet all the needs of individual justice sector agencies. Agencies require the flexibility to pursue the solutions that best meet their needs;
- all core justice sector agencies are either in the process of or preparing to re-engineer their business practices and systems.
 Significant investments in information and technology are planned in the sector over the next three years;
- agencies are at different stages of development of new internal information strategies and systems;
- justice sector agencies plan to move off the Wanganui computer system over the next three years;
- as individual agencies move away from the Wanganui computer system those agencies with sector wide responsibilities such as the

Ministry of Justice and Ministry of Transport seek to ensure that they continue to have access to high quality information drawn from the sector:

- communication standards and common, consistent data definitions are required in the future to provide a framework for exchanging information;
- opportunities may exist for justice sector agencies to share the work • that they are undertaking to minimise the costs associated with evaluating alternative solutions that address a common problem; and
- the need for a database administration policy which ensures key datasets are not changed before proper analysis of the potential impact.

Key Deliverables

Achieving the vision outlined in this strategy over the next 3 years requires much work and effort. The following key "building blocks" are essential and their development is a first priority for the strategy.



1. Shared and common information directory This directory will identify and describe:

Shared and common information directory

- the information flows between justice sector agencies;
- information requirements that are common • between all agencies;
- requirements for electronic or manual access to the information; and
- locations where information can be found.

This directory will be a dynamic document maintained over time. It is anticipated that it will be made available electronically to ensure it is readily accessible.



2. Information management policies guidebook

This guidebook will describe the agreed information management policies and guidelines for implementation. In particular it will address:

creation and collection of data and

- storage and retrieval;
- access and security;
- retention and disposal;
- publication and availability (e.g. on the Internet);
- collation and validation of data and information;
- data exchange protocols; and
- data quality standards and audit principles.

This guidebook will be a dynamic document maintained over time. It is anticipated that it will be made available electronically to ensure it is readily accessible.



3. Data dictionary

The data dictionary will contain all the agreed definitions, data formats and valid values for shared and common justice sector data. A data model for the shared and common information requirements will be included to provide context

for the definitions.

The data dictionary will be a dynamic document maintained over time. It is anticipated that it will be made available electronically to ensure it is readily accessible.



this roadmap.

4. Information resource roadmap

This provides a guide and roadmap to the wealth of information existing and used in the justice sector. The stocktake of what information is held within the justice sector, contained within the previously published document "What's Where", represents the first step towards the production of



5. Communication standards

The communication standards will comprise:

- the technology standards¹ for secure electronic communication;
- the message formats to be used for different exchanges;

• implementation guidelines; and

¹ Technology standards define the de facto or de jure industry standards that are implemented in vendor systems to facilitate interoperability. Technology standards, therefore, facilitate choice while not dictating specific products.

• tools that can be used optionally to support the implementation of the standards. This may comprise either a software development kit or endorsed set of packages that support the standards and simplify implementation.

Technology framework and standards

6. Technology framework and standards The technology framework will define the generic technology and standards required to support requirements for access to and exchange of information (as defined by deliverable 1). The

communication standards will be a sub-component of the overall technology framework and standards. Some of the issues that **may** need to be addressed include:

- how requirements for access to common and shared information will be accommodated;
- what impact the approach taken to access and management of common information will have on individual agencies;
- how statistical data will be gathered and reported;
- what standards are required to support communication of documentary information; and
- how the components of the strategy will be made easily accessible and available to individual agencies.

What will be different as a result

The key differences that will result from the implementation of the strategy are:

- mechanisms and processes will be established that enable the various agencies within the justice sector to effectively co-ordinate and co-operate on information initiatives;
- clear policies and guidelines will be established to provide the basis from which decisions can be taken regarding the future collection and management of data;
- mechanisms will be established to ensure that, where appropriate, and where agreed, individual agency investments in information management and technology can be used to maximum advantage for the sector as a whole;

- current duplication of effort and collections will be eliminated or considerably reduced through the establishment of agreed sharing arrangements and protocols;
- cross sector information will continue to be available for analysis regardless of where this information is physically held;
- individual agencies will work together on key information initiatives which may involve negotiation and possible modification of proposals to reflect both the individual agency and the sector interests;
- individual agencies will be able to enhance their operational capacity as a result of the improvements in the management of information;
- the public will be assured that individual rights are protected;
- Ministers will be able to confirm that policy advice is founded on good quality data and that investment decisions are soundly based and take account of the interests of the Crown as a whole;
- policies and procedures will encourage best practice on all information matters;
- the justice sector will reflect the principles and practices being adopted for the public sector; and
- information on justice matters will be more widely available and accessible.

The strategy will not be static. The approach will ensure that the benefits continue to be realised through the on-going development of the detailed projects. This flexible approach will ensure that changes in business, political or technological environments are accommodated within the evolving strategy.

Implications

Working together

The proposed strategy is intended to provide the conceptual and policy information framework for the justice sector agencies. This will involve an on-going dialogue between the agencies concerned. The experience in the formative stages of the strategy development has confirmed that the agencies recognise and accept their wider responsibilities, and are committed to the maintenance of a sector-wide approach. The strategy will support this commitment through mechanisms for maintaining effective information sharing and coordination of work programmes.

Development costs

The development and maintenance of an information strategy for the sector is part of the business-as-usual responsibilities of the various agencies involved. As such, the strategy will not be the subject of separate funding. Rather, the sector agencies will continue to contribute expertise and resources to manage tasks as they are identified. Where a clear co-ordinating activity occurs, the Ministry of Justice will seek appropriate resourcing and funding. This could include, for example, the tasks associated with maintaining a dynamic data dictionary and sector model.

The Ministry of Justice has made some provision for financial support of planned developments in 1996/97 and most agencies have indicated willingness to continue to make a contribution in kind. The extent of such contributions, however, is dependent on the competing pressures and demands of existing workloads within each agency. There are indications this may lead to a reduced level of input from some agencies, which raises the issue of timing, and also the possible impact on the outcome if participation levels are reduced. This issue will be explored further during the development of the detailed work plans.

Implementation costs

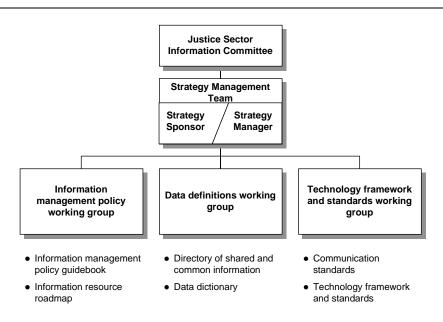
Adoption of the strategy may have implications for the internal investment decisions of the various agencies. It is expected that for the most part the implications will be positive, removing duplication and overlap inefficiencies. It is conceivable, however, that addressing the needs of one agency may lead to increased investment costs not just for that organisation, but for others. However, this would only happen if a cost benefit review established that the alternatives were more costly to the Crown. It may be, for example, that in not making the investment, significant costs would arise in other agencies as they tried to accommodate a system that ill-matched their own.

The strategy envisages that any request for additional funding to meet implementation costs, in the event such a situation arose, would be fully cost justified and dealt with on its individual merits. The strategy does not advocate or seek specific funding for implementation at this stage. Rather, effective implementation management which takes full account of the wider interests of the sector and the Crown is seen to be a business-as-usual responsibility for each agency.

Management Structure

The following framework for managing the work associated with the strategy is proposed. This approach is designed to prioritise work, to maximise the use of resources and to achieve a successful outcome across the sector.

Figure 1- Project management structure



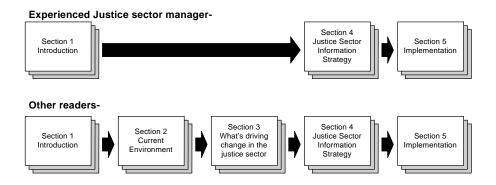
Conclusion

The justice sector is a major creator and user of information. All sector agencies require on-going access to a range of information services from operational transactions to documentary databases, and from published research to aggregate statistics. As such, the sector is clearly part of the knowledge based era of enterprise and endeavour.

This integrated information strategy provides the leadership, framework and agenda for maximising the benefits from effective use of information. Successful implementation of the strategy will ensure that the New Zealand justice sector moves with confidence into the 21st century.

Document structure

This document is designed to meet the needs of a wide audience. Significant parts of this document include background material to provide context for the lay reader. The following paths through this document are therefore suggested-



The document is divided into six sections.

- Section 1- Introduction. The section defines why an information strategy is needed and the process used to develop the strategy.
- Section 2- Current environment. This provides the background and context for the strategy.
- Section 3- What's driving change in the justice sector. The major business, information and technology drivers that influence the way information is managed in the justice sector are identified.
- Section 4- Justice Sector Information Strategy. This section outlines the justice sector information strategy in terms of the overall vision, guiding principles, critical success factors, key building blocks or deliverables, and the implications of commitment to the sector-wide strategy.
- Section 5- Implementation. This section outlines the approach to the development, implementation and management of the integrated justice sector information strategy.
- Section 6- Conclusion.

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1. Introduction

1.1. Preface

High quality information is essential for the effective and efficient operation and performance of the justice sector. The recent

Clear need for quality information information integrated justice information strategy has been agreed by Cabinet and key agencies to be a high priority move in that direction.

This strategy document is the product of a major co-operative effort involving key justice sector agencies, users of justice information and others with an interest in information and information management.

Other documents that have been produced as part of the work of the strategy include:

- Justice sector information stocktake- "What's Where". This document identifies and describes what information is held within the justice sector, who uses it, and what additional information needs can be identified at this time.
- **Information sharing principles**. This discussion paper outlines proposed information sharing principles for the justice sector.
- **Information Technology trends**. This document describes the major trends occurring in information technology and assesses their potential relevance to the justice sector.
- **Cost Benefit Analysis Protocol.** This document is a guide to making investment decisions in information management within the justice sector.

These documents are available upon request from the Chief Information Officer of the Ministry of Justice.

1.2. Purpose of the strategy

1.2.1. Background

The issue of justice sector, and in particular law enforcement, information sharing has been of concern for some years. In May 1995 the Cabinet Social and Family Policy Committee noted that a new Law Enforcement Information Sharing Committee would be established to develop a new information strategy. This work was to be convened by the Chief Information Officer of the Ministry of Justice and was to develop an integrated justice sector information strategy. Key concerns to be addressed within the strategy included:

Cabinet direction to improve performance in the information area

- making information more available;
- *in the information area* ensuring timely access to essential data;

• improving and affirming what was good e.g. criminal history data;

- improving the quality and accuracy of the data;
- minimising duplication of collections;
- ensuring cost effective investments in technology;
- meeting the changing business needs of the agencies;
- co-ordinating information policies and initiatives;
- developing policies for creation, collection and use of information in the sector;
- maintaining and developing the information asset; and
- contributing to the development of reliable performance indicators.

This strategy represents the first step towards addressing these concerns.

1.2.2. Why a justice sector information strategy?

Within the justice sector information is needed to:

- measure progress towards establishing secure communities as a contribution to a cohesive society;
- develop and evaluate justice policy;

the sector

Information is	• allocate resources to better achieve desired
essential to the	outcomes;
effective operation of	• monitor the effectiveness of the justice and

• monitor the effectiveness of the justice and legal systems;

• guide and inform operational decisions;

- measure and optimise operational procedures;
 - monitor the effectiveness of justice sector agency programmes; and
- measure and monitor current and emerging justice sector issues.

The need for an integrated justice sector information strategy is driven by:

- *Restructuring of the sector*. The restructuring of the sector has focused individual agencies' attention on the information and technology required to support their business and improve operational efficiency. Much of the information used in the sector, however, is of value to more than one agency. Indeed, the continuum of activity from investigation to enforcement will ordinarily involve two or more agencies. This has highlighted the need for co-ordination to ensure that effective sharing of information can take place.
- *Concerns regarding quality of existing data sources and systems.* Changing business needs and different approaches to information and technology development; significant levels of data inaccuracy; different approaches to how information is defined, stored, accessed and managed; and the need to integrate manual and electronic systems have all limited the value and use of the existing data collections. For the justice sector to be the official, credible source of key justice sector information in the year 2000 these issues need to be addressed.
- *Changes in the use of the Wanganui computer system.* The common information systems referred to as "the Wanganui system" have provided the central base for information processing across the sector for many years. The Ministry of Transport has now moved off that system and Police plan to cease supplying and accessing information over the next two years. Department of Corrections and Department for Courts are also planning to move off the Wanganui system over the next five years. Access to sector-wide information and mechanisms for cost effectively sharing information are key concerns highlighted by this trend.

1.2.3. Objectives of the strategy

The major objectives of the strategy are to ensure that:

- relevant, accurate and timely information is available to support the common business needs of all agencies in the justice sector and their customers;
- individual agency investments in information technology are made that take account of the broader needs of the sector as a whole, and those investments maximise the potential for sharing, and minimise duplication of effort;

- sharing of and access to information is cost effective, and managed within a framework that ensures all pre-existing rights and obligations are maintained; and
- the quality and accuracy of the information resource in the justice sector is equal to world class standards.

Establishing a framework These objectives will be achieved by establishing a framework for a co-ordinated approach while allowing individual agencies the flexibility to

pursue their own information and technology plans, priorities and timeframes. It requires a common understanding of the words and phrases used to record information, and the implementation of data exchange protocols and technical standards for the communication of agreed details using information technology devices.

The information strategy, therefore, provides guidance at the macro level to ensure that the collective interests are satisfied, (through the framework, principles, policies and processes) and that the autonomous business needs of each agency are supported (through technology standards and agreed approaches).

1.2.4. Key elements

Key elements for achieving these objectives have been agreed:

- using principles and protocols for the creation, collection and handling of common information;
- defining, developing and maintaining the core common datasets;
- providing the means to access and share core information safely and securely;
- consistently using standards for data, terms, technologies and systems;
- using network and communication technology to facilitate the exchange of information;
- respecting the privacy of individuals;
- complying with legislative requirements;
- introducing regular reporting and updates of information on justice matters;
- on-going review of information collection and management priorities and practices in light of changing policy objectives; and
- cost effectiveness.

The implementation of these elements must be driven by:

- best practice information management principles such as those outlined in the Privacy Act 1993 and Statistics Act 1975;
- the strategic objectives of the justice sector as set out in the Government Strategic Result Areas;
- the public accountability of the justice sector; and
- the efficient management of sector programmes.

1.2.5. Process for development of the strategy

Substantial progress has been made to date. The first step was to establish the Justice Sector Information Committee (JSIC) in November 1995 with senior management membership from each of the core justice sector agencies (Police, Courts, Corrections, Transport, Land Transport Safety Authority, Justice, Social Welfare) and advice and involvement from the Privacy Commissioner and the Government Statistician. Terms of reference, membership and a programme of work were agreed and implemented.

Steering Committee and Working Groups Eight working groups were set up to develop the key elements of an integrated justice sector information strategy. Membership was from each

of the agencies with outside expertise used where appropriate (e.g. security). The working groups covered the following areas:

- information sharing principles;
- stocktake of information held, used and needed;
- data definitions;
- data models;
- data exchange protocols;
- communication standards;
- security conventions; and
- cost benefit protocols for sector investments.

Genuine willingness to work together All working groups had agreed terms of reference, agreed tasks to be completed, agreed membership and timeframes. The working

groups were characterised by a genuine willingness to work together, to sharing information and ideas about activities and issues, to managing their individual and collective information assets and to making progress on these issues. Consultation Consultation with other key agencies was also undertaken. Workshops were held in April and June to keep participants and other interested groups and users of information involved in developments to date and to obtain feedback on key themes. Brainstorming sessions were held with working group members, and with user groups at key stages in the development of the strategy.

These processes ensured a shared understanding of the sector business, a sense of priority for the work on the key elements and a commitment to achieving the vision.

2. Current environment

2.1. Preface

Two major pieces of work were undertaken to establish the current environment:

- a stocktake of information resources held by justice sector agencies; and
- a description and assessment of the current and future use of information technology in the sector.

As a result of the analysis by each agency, the work of the working groups and the feedback from the workshops, a number of key issues and opportunities surrounding the management of justice sector information emerged.

2.2. Stocktake of information resources

2.2.1. Stocktake

A stocktake of information held by justice sector agencies, who uses it, and additional information needs that can be identified at this time was undertaken in 1995/96. The results of this review are published under the title "What's Where". This stocktake provides a "snap shot" of the current information holdings and information resources of each agency and is a reference point for those who collect and use the information.

Significant information sharing is carried out in the justice sector This process identified that while the information holdings of each agency are business specific there are significant on-line exchanges of key information. The stocktake outlines the protocols

under which this information is shared between agencies in the sector. Some agencies share information for operational purposes such as Police and the Department for Courts, and Police, Transport and the Land Transport Safety Authority (LTSA). Others agencies, such as the Department of Corrections and Ministry of Justice, make significant use of information collected by these agencies for operational, policy and research purposes. Much of the information which is shared is paper based and there is generally only limited electronic sharing. The use of information technology offers the opportunity for improved sharing arrangements while at the same time consolidating existing business relationships.

The major sources of electronic data for the justice sector are, for example, the Wanganui system, the Ministry of Transport's Motor

Need to integrate the various sources of data Vehicle Register, the Department of Corrections' Receiving Office and Client Offender Management Systems, and the Land Transport Safety Authority's National Register of Drivers'

Licences. Access in some cases is not possible, however, and quality may be compromised by lack of integration, common definitions or agreed access protocols.

Justice sector agencies also hold information in manual record systems. For historical reasons these data have not been captured electronically, which can make access to the information resource more cumbersome.

Justice sector agencies also require access to other sources of information and data including Statistics New Zealand and public registers.

2.2.2. Summary of issues identified in the stocktake

The justice sector has a detailed and internationally envied 20 year criminal justice dataset. There are, however, a number of factors which have limited the value and use of this data collection:

• *Changing business needs and different approaches to information and technology development.* These developments increase the risk that the existing cross sector, time series datasets will be lost.

Potential wealth of data on some topics but little on others Currently each of the agencies is operating at a different level of development and investment in information management and technology. Police and LTSA have made considerable progress in

recent years and far reaching initiatives are already underway. The Department for Courts is currently seeking Government approval for investment in major information technology systems.

• *Significant levels of inaccuracy estimated at between 5% to 20%.* The level of inaccuracy undermines the value and uses to which the datasets can be put. The level of inaccuracy is based on user feedback and varies depending on the dataset.

- *Different approaches to how information is defined, stored, accessed and managed.* Some data are not easily shared because they are collected in inappropriate forms, or collected and stored on systems that are not accessible to others. One example is inmate remand information stored on the Department of Corrections' receiving office system. The current systems do not facilitate easy and accurate identification of the number of those held on remand, nor assess remand time in total per offence for each offender.
- *Potential inconsistencies between duplicate systems*. Information from one system is currently being used to maintain information for sector use on a duplicate system (for example, the Ministry of Transport's Motor Vehicle Register updates the Wanganui Motor Vehicle Register host). There is a danger that information updated on one system may be overwriting more recent information on the other, or that the more recent information is recorded on one system but not the other.

2.3. Use of technology in the justice sector

2.3.1. Introduction

The main source of criminal justice information over the past 20 years has been what is known as the Wanganui system and a number of inhouse systems. This section provides an overview of the Wanganui system and a brief analysis of the current and future use of information and technology within each of the key sector agencies.

Common themes emerging from this analysis are:

- Justice sector agencies currently rely on the Wanganui system as a mechanism for accessing and sharing common information.
- In general, current systems are not viewed as providing the necessary functionality or flexibility to meet changing business needs.
- No one system will meet all the needs of individual justice sector agencies. Agencies require the flexibility to pursue the solutions that best meet their needs.
- Core justice sector agencies are either in the process of, or preparing to, re-engineer their business practices and systems. Significant investments in information and technology are planned in the sector over the next three years.

- Agencies are at different stages of development of new internal information strategies and systems.
- Justice sector agencies plan to move off the Wanganui system over the next three years.
- As individual agencies move away from the Wanganui system those agencies with sector wide responsibilities such as the Ministry of Justice and Ministry of Transport seek to ensure that they continue to have access to high quality information drawn from the sector.
- Communication standards and common, consistent data definitions are required to provide a framework for exchanging information.
- Opportunities may exist for justice sector agencies to share the work that they are undertaking to minimise the costs associated with evaluating alternative solutions that address common problems.
- The need for a database administration policy which ensures key datasets are not changed before proper analysis of the potential impact.

2.3.2. The Wanganui system

Background

The Wanganui computer system has provided the central base for core information across the sector for many years. It was commissioned in 1976 to service the law enforcement needs of the Police, the then Department of Justice and the Ministry of Transport.

Central base for core information over 20 years

The objective was to provide the Department of Justice, Police and Ministry of Transport with a modern computer-based communications and

data-retrieval system providing inter-agency communications and automated access to records, 24 hours a day, seven days a week

Information stored on the Wanganui system

The Department for Courts, Department of Corrections, the Police and the Land Transport Safety Authority currently hold law enforcement information on the Wanganui system, as set out in the Fifth Schedule to the Privacy Act 1993.

Fifth schedule to the Privacy Act authorises access That Schedule was amended by Department of Justice (Restructuring) Act 1995 to reflect that from 1 July 1995 some of the information

previously held by the Department of Justice would be held by the Department for Courts, and that from 1 October 1995 the remainder of that information would be held by the Department of Corrections. (The Ministry of Justice is not a holder of any law enforcement information.)

Access to law enforcement information held on the Wanganui system

Law enforcement information held by an agency on the Wanganui system can only be accessed by another agency if that access is authorised by the provisions of the Privacy Act. In respect of some law enforcement information the extent of access is expressly limited.

Responsibility for the Wanganui system

The day to day operational management of the system was undertaken initially by the Computer Services Division of the State Services Commission, and then the Government Computing Service (GCS). GCS became a state owned enterprise in April 1988. In 1994 GCS was sold to EDS Limited.

Changing ownership and management of the information system Ownership of the hardware and system software comprising the Wanganui system is now vested in a private company. Ownership of the accessing software is currently shared between

the Department for Courts, Department of Corrections, the Police and the Land Transport Safety Authority/Ministry of Transport.

System development

Little change to system over 20 years apart from adding new systems The Wanganui system is a centralised interagency facility. It is an example of where information from different agencies is collected and, subject to privacy and security requirements, is shared by the participating agencies across

departmental boundaries. A comparison of the needs of the three departments in 1972 with existing system functions shows that the system, with some exceptions, is little changed in terms of its structure and operating base. System improvements since implementation were primarily made to improve ease of user operations. More use is now made of menu selected options rather than the older less structured access procedures.

A Firearms Registration system was introduced in June 1984. Further significant system changes occurred in 1987/88 fiscal year when the new Fines Accounting System for the Department of Justice went into operation. This system resulted from the need to improve the fines

collection and enforcement processes. That was followed by the Lifetime Drivers Licensing System for the Ministry of Transport.

New system developments impact on other agencies The Department for Courts remains linked to the Wanganui system as the means by which that department's law enforcement functions are monitored. The department's sub-systems rely

on data from sub-systems maintained by Police and the Ministry of Transport. Similarly most of the Police sub-systems rely to a greater or lesser degree on data from the Department's case processing and fines enforcement sub-systems.

The need to maintain existing data flows between the contributing agencies while the Integrated National Crime Information System (INCIS) and other development projects are undertaken has been recognised. Police and the Department for Courts are discussing issues that will need to be resolved to maintain the effective interchange of data. Similar issues may arise in respect to Land Transport Safety Authority and Ministry of Transport requirements.

Figure 2 illustrates each agency's contribution to and use of the Wanganui system. The section of each agency within the circle represents the contribution in terms of volume, cost and effort. The circle also illustrates that as agencies move off the Wanganui system, alternative sharing arrangements will be essential if common data are to continue to be readily accessible.

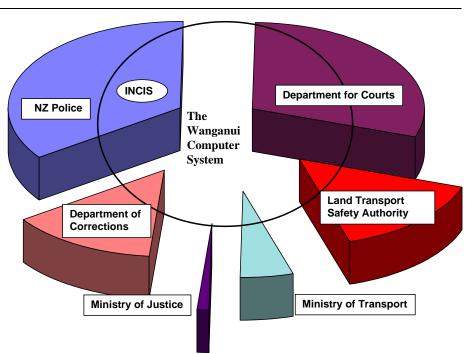


Figure 2- Current use of the Wanganui system

2.3.3. Current situation from the view of the justice sector agencies

Each of the agencies have different operational and business requirements. These requirements are supported either by:

- systems and data on the Wanganui system;
- systems that have some degree of reliance on the Wanganui system; or
- systems that are completely independent of the Wanganui system and are business specific.

All agencies are at different stages of information technology development, and most indicate that existing systems do not meet their needs. Table 1 illustrates the major systems currently used by justice sector agencies.

The Wanganui system is currently used by all agencies. It is, however, perceived as inflexible. Modifications to the system involve significant interconnected programme changes. Such changes require the support and significant resource commitments from all affected agencies. The file structure and application language (mainly COBOL) mean that ad hoc queries to retrieve data have to be specially requested, and retrieval programmes developed.

Of the other systems in use, only one, LANDATA (Ministry of Transport) is highly rated. Other systems are perceived to provide moderate to low levels of support for current business needs. (This does not include the Police INCIS system which is yet to be fully implemented.)

Land Transport Safety Authority	Ministry of Transport	Department for Courts
National Register of Drivers Licences	Motor Vehicle Register	Courts EDS/Wanganui System (Case Monitoring)
Transport Service Licensing Register	Road User Charges	Courts Fines Enforcement System
Demerit Point System		
Alcohol Assessment Programme		
Land Transport Safety Systems		
Driver Test Audit System		
Land Transport Accident System		
TASS (Heavy vehicle inspection)		

Table 1- Systems used by core justice sector agencies

Police		Department of Corrections
Integrated National Crime Information System	Details of Overseas Convictions	Receiving Office System
Incident / Offences Sub- system	Document Locator Sub- system	Client Offender Management System
Traffic Camera Sub- system	Modus Operandi Sub- system	Victims Register
Traffic Conviction Histories Sub-system	Computer Assisted Dispatch Sub-system	Inmate Number Statistics
Traffic Enforcement Sub- system	Property of Interest Sub- system	System of Client Record Information for Psychological Tasks
Vehicles of Interest Sub- system	Traffic Camera Office Image Sub-system	Prisons Support Unit Statistics Database
Persons of Interest Sub- system	Fire Arms Licence Sub- system	Records of Security Classifications of Prisoners
Fingerprint System (AFIS)	Family Violence Sub- system	Approvals for Administrative Decisions on Prisoners
		Custody Supervision Sub- system

2.3.4. Developments in IS strategic planning

Department for Courts, Department of Corrections, the Ministry of Transport and the Ministry of Justice are all in the process of developing information systems strategic plans.

The Department for Courts is in the process of selecting a long term business partner who will help with business process re-engineering, change management and the development and implementation of an information technology strategy. Work to be undertaken is expected to take three to four years to complete.

The Department of Corrections expects to complete a strategic plan by September 1996. That strategy will have a three year focus and will include major business re-engineering projects.

The Ministry of Transport's information strategic planning is well advanced. The 1992 strategy culminated in the implementation of LANDATA. An assessment of whether business aims are being achieved is now underway. Police have a fully developed plan which they are in the process of implementing. The "Policing 2000" strategy will see the implementation of the Integrated National Crime Information System (INCIS), and the Communications and Resource Deployment system (CARD). Both will replace Wanganui systems. CARD will be implemented progressively from October 1996 and replaces the Wanganui Computer Aided Despatch system. INCIS will be implemented in two stages. The first in March 1997 will cover the core functionality provided by the Wanganui systems. The second due for completion in December 1997, will provide new workflow and document management functions.

2.3.5. System development

Business Process Re-engineering (BPR) and system development projects are either planned for or in the process of being implemented throughout the sector. That has significant implications for the sector where practical short term solutions may be required to meet needs until all the re-engineering and systems development work is complete.

A key factor is the inability of current systems to support the existing or future business needs of all agencies. However, these systems may have to continue to operate for some time until all agencies are able to implement replacement systems. During that transition period the costs of operating some duplicate systems for a period will need to be addressed. The Ministry of Transport's duplicate Motor Vehicle Register is an example of this. Others may arise when INCIS is implemented.

A related issue to be resolved is the preservation of historical core or common datasets alongside the new datasets.

2.3.6. Communication standards and networks

To ensure that information systems in the justice sector can continue to communicate "post-Wanganui", agreed communication standards are required.

Standards being implemented by one agency may need to be considered for sector-wide use. For example, the work on standards done by Police could be shared with other agencies to reduce the overall cost to the sector of investigating alternative approaches to a common issue.

Police, Department of Corrections and the Department for Courts are either upgrading national communication networks or plan to do so soon. The need for voice and electronic messaging networks is common to all agencies. Work undertaken by one agency could be shared with others. That may result in cost savings.

2.3.7. Costs

Police and Department of Courts share the main cost of maintaining the Wanganui system. Others pay according to their level of use. Given current developments, all agencies will either make individual decisions on when they will cease to contribute towards the cost of maintaining the Wanganui system, or it will become a justice sector issue. The gap between those agencies that have reached a stage where they wish to avoid further expenditure on maintaining the Wanganui system, and those that will continue to need the system will become more noticeable in 1997. This issue will require special attention and sector co-operation to ensure the interests of all agencies are considered, and to ensure data collections are protected for the future.

2.3.8. Other agencies

Other agencies are also users of information generated within the justice sector. These include Te Puni Kokiri, Ministry of Women's Affairs, Ministry of Youth Affairs, Human Rights Commission, the Law Commission and users such as law librarians and university researchers. These agencies require access to timely and comprehensive justice information. As users of information their input to the process is critical. Consultation will continue to be on-going and expand once the groundwork for the strategy has been completed.

2.4. Key themes

As a result of the analysis undertaken by each agency, the efforts of the working groups and feedback from workshops, a number of key themes surrounding the management of justice sector information have emerged. These include:

- the need for an information literate justice sector;
- ensuring improved access to essential information and making official information more widely available;
- the need for high quality data;
- the potential efficiencies from sharing core information;
- the importance of co-operation across the sector;
- managing costs and investment across the justice sector;

- the need to review existing and potential legislation for information implications;
- using technology to meet individual agency and collective sector needs;
- the need for standards and protocols to assist in the electronic exchange of information;
- respecting privacy, and ensuring security policies are implemented;
- ensuring flexibility to meet current and future needs; and
- the future role of the Wanganui system.

2.4.1. The need for an information literate justice sector

Effective use of information provides a competitive edge for all agencies. More and more information is being created by and made available within the justice sector. Making effective use of this information requires agencies to be information literate.

Significant investments are being made to ensure that people can draw easily on a variety of information sources. The sector must be information smart to justify the investment in information management and information technology. Thus a key requirement is investing in the training and development of staff to ensure that they can locate, use and analyse information effectively.

External demands for information are also likely to grow in volume and complexity. This also will increase the need for high quality information services.

2.4.2. Improved access to information

Improved access to information is one of the keys to the better use of information across the sector. Currently access to the various datasets is limited. Access by the public to justice sector information is also limited.

The justice sector information strategy will assist the sector by detailing policies for access, for developing official credible sources of information on justice matters and for making information readily and widely available.

2.4.3. The need for high quality data

The justice sector requires robust, accurate and consistent data. Meeting these qualities will contribute to confidence not only in the data but also in the resulting policy and business decisions. A key requirement for all agencies in the justice sector is to ensure that information is of world class standard.

While the present data on the Wanganui system offer a unique world class dataset on criminal justice, the effectiveness of that data is reduced due to the inconsistent quality. In some areas the data meet only part of the current business needs and error rates are assessed as being between 5% and 20%, thus considerably reducing the reliability of the data. A major problem contributing to inaccuracy is input error and the lack of data entry validation.

2.4.4. The need to share core information

A key theme in the justice sector has been the need to share core information. The ability to collect information once and use it many times increases the efficiency and effectiveness of individual agencies and the sector as a whole. Issues to be addressed before introducing information sharing on a wider scale include privacy and security considerations, sharing principles and protocols and the identification of core common data used in the sector.

2.4.5. Co-operation across the sector

Opportunities for co-operation in the justice sector include:

- maximising technology investments through avoiding duplication of effort and systems;
- using common data definitions to avoid inconsistencies and duplication of effort;
- enabling valid comparisons to be made between datasets; and
- learning from each other.

The current high level of co-operation and activity needs to continue from all justice sector agencies to ensure that these opportunities are maximised for the benefit of all.

2.4.6. Minimising investment costs

The Crown seeks to ensure that it does not over-invest in information and technology in the sector. There is a risk that agencies could separately develop information systems, duplicating investment and effort. The strategy will assist by providing a framework for appropriate and effective sharing of common information. This will reduce costs by:

- ensuring required data are collected and entered only once, thereby eliminating or minimising duplication and reducing resultant errors;
- improving the consistency and quality of data; and
- reducing the time needed to gather the information.

However, there are costs associated with sharing information, and agreements will be necessary to ensure that costs are also fairly shared. If the information to be shared is clearly identified, well managed and has common core definitions, then the cost of providing the information should be reduced.

Investment is also needed to train people to use information well. People must have the right skill mix to be able to access, analyse and use information and technology efficiently.

2.4.7. Complying with legislation

All information collection in the sector must comply not only with the acts administered by individual agencies but also legislation covering the management of information, for example the Privacy Act 1993, Official Information Act 1982, Statistics Act 1975, Archives Act 1957 and Copyright Act 1994.

In some instances, existing legislation may act as a potential or existing barrier to information sharing and these barriers need to be identified and addressed. In other instances, guidelines may be needed to ensure that legislation is applied consistently across the justice sector. Differing definitions also exist within existing legislation. Rationalisation of these definitions for operational purposes is essential.

2.4.8. Using technology to meet individual and collective needs

Technology is a vital tool for doing business better, working smarter and managing information resources. Justice sector agencies are currently planning or implementing major technology investments to assist them in meeting current and future business needs. These investments must recognise the collective interests of the sector as well as individual agency interests.

2.4.9. Using technology standards and protocols

In order for information sharing to operate effectively, information technology systems within the justice sector need to be compatible. Standards and protocols need to be adopted in areas such as communication (e.g. TCP/IP, SNA, IPX/SPX), messaging (e.g. EDI, x400, x500), and transport mechanisms (e.g. leased lines, x25, Frame Relay, ATM, Wireless).

Standards also apply to data in terms of definitions and quality and to the legal protocols for exchanging data and information.

2.4.10. Respecting privacy and meeting security requirements

The practice of gathering core information once and using it many times needs to be balanced against privacy considerations. Respecting the confidentiality of personal information is critical to developing trust between the sector and the public. A key to this is ensuring that agencies observe the information privacy principles and in particular that the purposes for which information is gathered is transparent to the public.

Use of security standards are one means of ensuring the safe delivery of and access to information. Guidelines are also needed to establish authorised use and access rights within agencies and across the sector.

2.4.11. Flexibility to meet current and future needs

The design of information systems within the justice sector must be flexible enough to meet operational, research and policy needs both now and in the future. These needs are subject to change over time. One example is that the criminal justice sector presently focuses on the offender, but to meet the emerging emphasis on restorative justice concepts, future needs include information on the victims of crime and operational performance measures.

2.4.12. Future role of the Wanganui system

The current and future plans of justice sector agencies to develop individual information technology systems to meet individual business needs raises the question of the future of the data stored on the Wanganui system.

The sector needs to decide whether these historical data should be moved onto the new systems. This decision has important implications. Firstly, a decision either way will impact on the comparative analysis of data and statistics in the future. Secondly, if the data are moved, then a decision must be made on how much, if any, are to be 'cleaned up'. Thirdly, there are major financial implications for both core sector agencies and a number of service providers depending on what the sector decides.

3. What's driving change in the justice sector

3.1. Preface

Considerable change in the justice sector As with most other areas of public and private endeavour, the last two decades have been a time of significant change for the justice sector. The

nature of criminal activity has become increasingly complex and sentencing options are becoming more refined to better balance the deterrent and rehabilitative interests of society. There has been a continuing increase in the range and complexity of work accompanied by increased use of accountability mechanisms such as output budgeting, and a much greater emphasis on the prudent management of resources.

These developments have been matched by the introduction of new work management practices, including the contracting out of activities where they can be performed more efficiently elsewhere, where competition is seen as desirable, or where they are not seen as part of the core business. This has resulted in new organisational structures which have variously joined or separated parts of earlier organisations.

On-going development of social policies The changes have run parallel with the continuing development of social policies intended to define and maintain the rights of

individuals and the community as a whole. The right to be properly informed, to be legally represented and to personal privacy are now enshrined in the law. The Bill of Rights Act 1990 provides for "the right to be tried without undue delay" and, on a case by case basis, this continues to be tested before the Courts.

Overarching these obligations has been an increase in the public accountability requirements which depend on accurate and relevant performance information.

This section reviews the key business, information and technology drivers that have led to the need for the development of this strategy. This provides the background and context for the strategy presented in section 4.

3.2. Key business drivers

3.2.1. Restructuring

Building in strategic focus, leadership and responsive services In its first report in September 1994 the Department of Justice Review Committee identified a number of problems with existing departmental structures, management systems,

and management processes. The committee concluded that structural reform was essential as part of an overall strategy to get a better strategic focus, effective leadership style, supportive management structures, and efficient operations. Following Cabinet agreement, the Department for Courts, the Ministry of Justice and Department of Corrections were established.

Restructuring in the wider justice sector has also included the development of the Policing 2000 initiatives and the Ministry of Transport's pending divestment of the Land Transport Fund (LTF) systems. Both will continue to have an impact on sector data needs, information management policies and use of technology.

While these reforms sought to address specific concerns, they also sought to achieve a better strategic focus on the needs and challenges of particular justice agencies and improve overall co-ordination of justice policy and services. The development of an integrated justice sector information strategy is a key initiative responding to issues identified in the review.

3.2.2. Legislative changes

Legislative changes over the past two decades have also had a significant impact on how Government agencies use and manage information. Some of the changes have been operational in nature while others have sought to define and maintain the information related rights and responsibilities of individuals and agencies.

State Sector reform The State Sector Act 1988 and the Public Finance Act 1989, provide most of the framework for these operational requirements. This legislation has focused attention on the need for timely and accurate information that can be used to:

- guide and inform the development of policy options;
- define and review operational procedures; and
- monitor and review the impact of decisions against both immediate and longer term social and economic objectives which underpin all Government activities.

Other pieces of legislation which have an impact on the operational responsibilities of justice sector agencies include the Occupational Health and Safety Act and the Employment Contracts Act. Both of these apply equally to the public and private sectors.

There has also been a continuing series of legislative initiatives that encompass socio-legal objectives and which directly impact on information management policies and processes. These include the Official Information Act, the Privacy Act, the Statistics Act, the Archives Act and the Human Rights Act which all define rights and obligations directly influencing the way information is gathered, stored and used.

The effect of these developments has been to increase the demand for reliable policies and processes that ensure:

- information is readily available when required;
- information is protected from unauthorised use or disclosure;
- the benefits of information management exceed costs;
- information technology is used to achieve these objectives where that is a cost effective option; and
- that official information is made progressively more available.

3.2.3. Pressure on agencies to reduce costs

The past decade has been characterised by continuing demands for improvement in efficiency, as measured by the cost of the products and services provided throughout the state sector. The justice sector agencies have not been immune from such demands.

Demands for improved efficiency Scrutiny of Government expenditure has been made more rigorous through the introduction of accrual accounting, capital charges, output

budgeting, the separation of funding and service provision and contestability. All of these have led to the development of new and improved ways of providing services.

Ready access to timely and relevant information is crucial to achieving operational efficiencies. Public sector managers are now expected to:

- have a detailed grasp of the role and objectives of their organisations;
- be able to track and report progress towards the achievement of key deliverables; and

• constantly monitor and review internal processes to identify changes that could improve the performance of the organisation or provide better value for money.

Increased scrutiny and review

The emphasis on efficiency is also reflected in the new and innovative use of information for management, for policy development and review

and for reporting progress. Performance expectations are now a matter of public record. Results are reviewed in depth by Parliamentary Select Committees in addition to the attentions of Treasury, the State Services Commission and the Audit Office.

3.2.4. Improved accountability

All justice sector activity (excluding judicial activity) is conducted on a "contractual" basis. The Crown, represented by the responsible Minister, has an agreement with the relevant chief executive which establishes the performance targets and expectations of that Ministry or Department. Crown funding for the organisation is governed by a purchase agreement which establishes the services expectations and price for agreed activities. These agreements are underpinned by performance agreements, ownership agreements and various other accountability mechanisms which seek to establish the terms and conditions that apply to the activity whether it involves an internal provider or a third party contractor.

The use of contracts and similar approaches requires increasingly sophisticated use of information to identify the trade-offs between different outcomes; to determine the best source or process for supplying required outputs; to evaluate the costs and benefits of the available options; and to establish and monitor the qualitative and quantitative indicators of agency performance. These requirements are consistent across the agencies and apply with equal relevance to the operational and policy aspects of the business.

3.2.5. Growth in the volume of activity

Justice sector agencies have experienced a continued increase in their level of activity. For example, in 1995 there were 506,359 non-traffic offences reported to the police, a 72% increase since 1979. This growth flowed through to the courts where there was a 51% increase in the number of prosecutions for non-traffic offences over the same period and to Corrections where the average daily number of inmates increased by 64%.

Increase in volume and complexity of activity matched by information intensive demands Similar growth has been experienced in all facets of criminal justice sector activity, and is reflected in the number of new policy initiatives taken over the period. This includes the continuing increase in "minor offence" processing outside of the

courts system and the use of diversion and like approaches. Similar volume increases have been evident in the civil and family related activities.

The change in "raw" volume of justice sector business may in fact understate the impact of this trend. There is some evidence to indicate that the level of sophistication of the information required has also increased substantially. There are a number of reasons for this, including the rise in "white collar crime" and changes in social policy reflected in the Bill of Rights and other legislation, which reflect the changing demands of society itself.

In summary, the justice sector continues to experience continuing growth in the volume and complexity of activity. It is an information intensive area of activity. As such, it has placed and will continue to place emphasis on effective management of information as a key means of achieving continuing improvements in both efficiency and the quality of activities.

3.2.6. Changes in technology

New technologies have also facilitated many developments in the justice sector. They are helping change the way that each of the agencies undertake their business and core activities. Information technology has enabled some of the following to be realised:

- network technology allows individuals to access information regardless of where it is physically held;
- the integration of systems supplied by different vendors and located at different physical locations; and
- imaging and optical character recognition approaches which offer efficient and effective storage, use, management and access.

There continues to be an increasing range of technology options that organisations can apply to their business to streamline processes or implement new ways of delivering service. Business process reengineering, currently being undertaken by most justice sector agencies, will focus attention on how to better integrate information technology into the work environment to enhance productivity and establish new ways of delivering services. In the year 2005 we could expect:

• organisations to be connected to an information backbone (network) that enables information to be readily shared and accessed. This backbone is likely to be an enhancement of what is currently known as the Internet;

Searching and sorting information

• organisational success will become contingent on the organisation's ability to process numerous sources of information to identify the credible,

reliable elements. The relative ease of access will create the potential for increased misinformation by error or design;

• organisations will be able to link their operating information systems with those of other organisations. Increasing volumes of information will be shared and duplication of effort between organisations will be eliminated;

Rapid growth• the range of technology options will have
increased substantially beyond those availabletoday. The complexity of these options will force organisations to
redefine current outsourcing arrangements with an increasing focus
on internally managing information and technology for the business.
Technology will be integrated to the business as and when it makes
sense to do so; and

• technology standards will continue to be driven by the market place and vendor innovation. It will be crucial that the use of information and technology is driven by the organisation and not the vendor community.

3.3. Trends in information management and technology

This section provides an overview of the major emerging trends in information management and information technologies that are relevant to the implementation of the strategy.

3.3.1. Knowledge based society

New Zealand is increasingly becoming a knowledge based society. Producing and managing information is now a major part of the business of Government and there is a growing realisation of the need to manage the information asset appropriately.

Need to manage information Information management encompasses strategic planning, policies, content and format as well as systems. In order to be effective, information

must be managed at all stages of the lifecycle, from design and creation through to retention and disposal.

3.3.2. Information management initiatives in the Public Sector

A number of initiatives are already underway to implement best practices in information management in the public sector. Some include:

• *Management of Government Held Information*. In November 1995 Cabinet approved terms of reference to consider issues of Government information management policy. An advisory group of Chief Executives is presently preparing a report that looks at the information principles for access, ownership, security and quality across the public sector. The report will also examine how these principles are to be applied collectively, sectorally and/or within individual agencies.

Justice activity aligns with national initiatives Alongside this the National Library has established a feasibility project to investigate the degree of departmental interest in a new strategic result area that would outline the outcomes that

Government wants from developments in information access and management, and in new technology.

• *Management of Sector-held information*. Recognition of the importance of information management is also increasing at the interdepartmental level. In February 1995 the Interdepartmental Committee on Information Technology released a discussion paper on information sharing which outlined principles, policies and standards for information sharing.

3.3.3. Links to the justice sector information strategy

The above initiatives share the following themes with the justice sector information strategy:

• maximising the use of and access to information;

- minimising the number of times data are collected;
- ensuring information collection is not duplicated;
- promoting accountability and enabling contestability;
- using standards and best practice in all information initiatives; and
- ensuring cost effective investment in, and management of, information assets.

3.3.4. Key technology needs of the sector

The information technologies most directly relevant to the sector are those that facilitate:

- access to accurate, consistent information;
- the ability to move information safely and securely between agencies; and
- the ability of agencies to develop their own information strategies, needs and timeframes while ensuring that they can "interoperate" with other agencies.

Some of the technologies include:

- data warehouse technology;
- intranet technology;
- technology that facilitates secure data interchange;
- high speed network technology; and
- groupware technology.

3.3.5. Data warehouse technology

Data warehouse technology integrates a variety of technologies to simplify end user access to corporate data. A data warehouse comprises the following components:

- a database which stores time series data in common, consistent formats;
- technology which facilitates the extraction of data from different data sources, conversion into common formats and loading into the data warehouse;
- meta data systems that describe the contents of the data warehouse and help end users navigate around the data warehouse; and
- end user access tools.

The experience of many organisations indicates that the success of a data warehouse depends on the accuracy and relevance of the data, not the capabilities of the technology. Successful implementation is

therefore determined by the quality of the up-front analysis and design and the training and support provided to end users.

The current arrangements for users to access statistical datasets held on the Wanganui system is one form of a data warehouse.

Implications for the strategy

Data warehousing technology is one option for facilitating the collection, storage and analysis of non-operational common core data in the justice sector. The major issue to be resolved will be agreeing:

- data definitions and formats; and
- how sector-wide data will be stored (centrally or distributed) and accessed.

3.3.6. Intranet technology

"Intranet" is the term used to refer to the application of "Internet" technology within organisations. While this technology has existed for sometime it has recently gained rapid acceptance within organisations as a cost effective mechanism for storing and accessing textual information. The key components of an Intranet are:

- *Web servers*. Web servers store information, enforce security and provide a platform for integrating external systems into the organisation Intranet. Information is converted and stored on these servers in the common HTML (Hyper Text Markup Language) format. Hot links are created between documents that enable users to jump from document to document.
- *Web browsers*. A Web browser is the technology that the end user uses to access the information held on the various Web servers on the Intranet. The browser converts the native HTML into a formatted document for display to the user.
- *Network.* The network provides the infrastructure required to connect end users to Web servers.

The above basic Intranet technology is normally supplemented with a search engine to index documents and provide search capabilities.

The major trend in Internet and Intranet technology is the extension of the capability of Web browsers. Web browsers have recently gained the ability to not only display information but also run applications.

Implications for the strategy

Intranet technology could provide a platform within the justice sector to:

- facilitate controlled access to individual agency systems by other agencies;
- organise and provide access to unstructured reports such as policy documents;
- facilitate workgroup style collaboration on documents within and across organisations; and
- locate information more speedily and more accurately.

3.3.7. Secure data interchange

Secure data interchange is the process of moving information electronically between organisations while ensuring:

- confidentiality- only the sender and the recipient can read the information sent;
- integrity- no changes can be made to the information while in transit;
- authentication- ensuring the identity of the sender;
- non-repudiation- the sender cannot deny sending a document, nor the recipient deny receiving it.

Encryption techniques are used to achieve this security. Significant investment has been made in the development and implementation of encryption technology over the last two years as vendors attempt to develop technologies that will enable organisations to undertake commercial transactions over public networks like the Internet. The technologies used to provide security for these transactions can be applied equally well to any data exchanges between organisations that need to be secured.

There are two major approaches to encrypting messages:

- Synchronous, or single key encryption
- Asynchronous, or dual key encryption

Single key encryption is fast and secure but cannot provide authentication i.e. if multiple people have the key, confirmation of where the message originates from is not possible.

Dual key encryption algorithms use a public and private key. A public key is used to encrypt a message and a secret or private key is used to decrypt a message. Once a message is encoded with one key it can

only be unlocked by the other key. This approach guarantees the authentication of the sender. Dual key encryption, however, is much slower than single key encryption. Key management is also an issue, particularly who will distribute and manage the keys.

Most organisations implement a combination of the above encryption mechanisms to provide the range of capabilities and performance required.

Encryption technology is currently being implemented into Internet server technology offered by most major vendors. It is an area that is evolving rapidly, however, and new and competing standards are being developed at a fast rate. Ensuring the compatibility of different vendor products will be a problem for the foreseeable future.

Implications for the strategy

Encryption technology can provide added levels of security for the exchange of confidential or private information between organisations. The major issues to be resolved are:

- determining the appropriate security policies for electronic information exchange in the justice sector;
- determining the encryption standards to be followed by the justice sector;
- identifying appropriate products for use; and
- resolving key management issues, including those relating to costs.

Many of the detailed technology issues are likely to become clearer over the next 12 to 24 months. Relatively inexpensive technology, however, is available today that does provide adequate levels of security for electronic information exchange.

3.3.8. High speed network technology

The provision of network connectivity between justice sector organisations will be a prerequisite to implementing some of the key enabling technologies discussed above, such as data warehousing and Intranets. Typically, however, the network has proved a bottleneck.

The current trend in networking is the development of technology that enables much larger volumes of data to be moved around faster, facilitating:

- better system performance over remote connections,
- better access to data located at remote locations, and

• the adoption of multi-media technologies such as video conferencing.

The major technologies that enable an organisation to scale its network to meet its traffic demands are Frame Relay and Asynchronous Transfer Mode (ATM). Frame Relay is widely available in New Zealand and provides network speeds of up to 2 megabits per second (approximately one fifth of the performance of an office network). ATM is a new technology that is still not widely available. ATM currently provides speeds of up to 2 megabits per second across remote connections.

Implications for the strategy

The networking technology adopted for inter-agency communication will be determined by the volume of traffic anticipated between agencies, and the overall performance required. Issues to be resolved include:

- a) how agencies are inter-connected. Frame Relay and ATM are two options for providing high speed, scaleable band-width. Other options include leased point-to-point lines and X.25 networks; and
- b) the protocol used for communication. The communication protocol defines the language for communication between computer systems. The industry standard for this communication is currently a well established protocol called TCP/IP.

3.3.9. Groupware technology

The term "groupware" defines a range of technologies that allow a group of users working together to achieve a common goal. The following technologies are usually included under this definition:

- document and forms management;
- electronic mail;
- scheduling; and
- workflow.

The acceptance of these technologies is increasing as they are implemented following business process re-engineering projects. Reasons include:

- document and forms management provide ways for users to collaborate on work, locate and access documents, and control versions;
- electronic mail provides mechanisms for communicating and moving information around an organisation;
- scheduling assists with the process of organising meetings; and
- workflow provides ways for automating and managing work processes.

Some of the potential benefits of groupware technology include:

- improved communication and sharing of information; and
- reduced processing costs and improved cycle times.

Like many other technologies groupware technology is currently converging with the Internet. Some of the current trends include:

- workflow over the Internet. This enables organisations to involve other organisations connected to the Internet in a work process; and
- document management over the Internet. This enables organisations to publish documents on the Internet using standard document management or groupware tools.

Implications for the strategy

The justice sector is a document and paper intensive industry that could benefit through the application of groupware technologies like document management and workflow. The benefits, however, are more likely to exist within individual agencies than between agencies. Internet technologies like the World Wide Web will provide the "glue" that will enable information held within groupware solutions to be shared.

Intranet technology also provides some basic groupware functionality and can be considered either as an alternative to or in conjunction with groupware technology.

4. Justice Sector Information Strategy

4.1. Preface

The need for a co-ordinated and coherent framework within which information management can be undertaken within the justice sector has been supported and accepted by all agencies. There is agreement for an approach which will ensure that the maximum benefits for Government and society are gained from future individual and joint information management initiatives.

The sector is equally clear that any strategy must have the flexibility for each agency to take the individual operational decisions that may be required to meet its business and policy responsibilities.

Managing the balance between these two positions requires the sector to:

- work together and maintain an on-going dialogue;
- endorse the conceptual framework and guiding principles for the sector's information policies; and
- ensure that individual agency initiatives are aligned with sector principles and policies as well as individual agency business needs.

4.2. Vision for the Justice Sector

The integrated vision for the justice sector is still being developed. This task is being undertaken by the Strategic Policy and Purchase Advice working group which is due to report to the Justice Sector Chief Executives group later this year. This vision should provide the framework and understanding for the development of information and technology strategies and plans. It is envisaged that it will encompass the following goals:

- to contribute to the development of a fair and equitable society;
- to be the best providers of advice on justice matters;
- to be a high performing and efficient sector;
- to use information appropriately supported by high quality analysis and statistics; and

• to earn international respect.

These are currently reflected in the individual vision statements of the core sector agencies which include such provisions as:

- to ensure a free, democratic, secure, tolerant, just and legitimately governed society in which everyone can participate;
- to ensure safer communities;
- to be world leaders in the provision of justice services; and
- to ensure individuals, families and organisations meet their statutory obligations.

Significant organisational change has occurred in the justice sector over the last two years and will continue to occur. The move to develop an information strategy for the justice sector is based on a desire for the associated agencies to continue to work closely and effectively together, whatever the organisational configuration, and ensure that information technology supports the changes. The ongoing collection and management of information should transcend the way the sector is organised. The ultimate aim is to enable the individual and collective efforts of each agency to produce the best possible return to society in terms of efficiency and effectiveness.

4.3. Vision for Justice Sector Information

4.3.1. Justice sector information vision

To ensure that relevant, timely and accurate information is available and accessible to authorised users to support the business needs of all agencies in the justice sector and their customers and to monitor the justice environment.

The achievement of this vision, amongst other things, requires the establishment of an environment and infrastructure that:

- enables timely authorised access to accurate, consistent data collected by individual justice agencies;
- facilitates the safe, secure and accurate exchange of information around the justice sector;
- minimises or eliminates duplication of information systems and effort;
- respects privacy;

- facilitates improved decision making in the justice sector;
- establishes procedures to realise and manage the information asset within the sector; and
- recognises agency responsibilities for data collection and management.

Once established, this will provide a framework that provides sufficient flexibility to individual agencies to pursue their own business imperatives while ensuring that the over-arching needs of the sector are met.

The framework will be dynamic The framework will not be static. Mechanisms will be established to ensure that the benefits of the strategy continue to be realised over time

through the on-going development and refinement of the details of the strategy. This approach will ensure that changes in the business, political or information technology environment are accommodated within the strategy.

4.3.2. Key elements

The key elements of the information strategy are:

- using principles and protocols for the creation, collection and handling of common information;
- defining, developing and maintaining the core common datasets;
- providing the means to access and share core information safely and securely;
- consistently using standards for data, terms, technologies and systems;
- using network and communication technology to facilitate the exchange of information;
- respecting the privacy of individuals;
- complying with legislative requirements;
- introducing regular reporting and updates of information on justice matters;
- an on-going review of information collection and management priorities and practices in light of changing policy objectives; and
- ensuring cost effectiveness.

4.3.3. Scope of the strategy

In the first instance, the strategy will address the needs and interests of the agencies involved with the delivery of criminal justice services. These are represented by a core group comprising Police, Ministry of

First phase will focus on criminal justice Transport, Land Transport Safety Authority, Department of Social Welfare, Department for Courts, Department of Corrections and the Ministry of Justice. There are however an extensive range of related interests represented by other central Government agencies such as Te Puni Kokiri, Statistics New Zealand and the Ministry of Women's Affairs and other users of information.

Move to other justice areas as necessary

Eventually the strategy will impact on all organisations which are involved in the provision of criminal justice services and other justice

services to the extent it is necessary and appropriate for there to be common standards for the collection and exchange of related information.

The medium term objective is to extend the scope of the strategy to encompass other elements of justice sector activity such as the family or civil matters to the extent this is necessary and appropriate for the effective management of the sector. The timing of any such initiative is subject to agreement with the agencies involved. Current indications are that this will be determined towards the end of the 1996/97 financial year.

The focus of the strategy is on the interactions and exchanges of information between agencies as illustrated below in Figure 3.

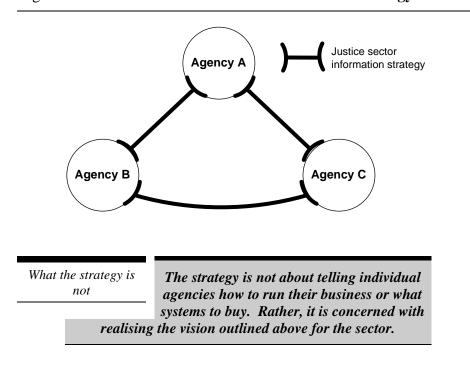


Figure 3- Focus of the Justice Sector Information Strategy

4.3.4. What will be different as a result

The key differences to today's environment that will result from the implementation of the strategy are that:

- mechanisms and processes will be established that enable the various agencies within the justice sector to effectively co-ordinate and co-operate on information initiatives;
- clear policies and guidelines will be established to provide the basis from which decisions can be taken regarding the future collection and management of data;
- mechanisms will be established to ensure that, where appropriate, and where agreed, individual agency investments in information management and technology can be used to maximum advantage for the sector as a whole;
- current duplication of effort and collections will be eliminated or considerably reduced through the establishment of agreed sharing arrangements and protocols;
- cross-sector information will continue to be available for analysis regardless of where this information is physically held;
- individual agencies will work together on key information initiatives which may involve negotiation and possible modification of proposals to reflect both the individual agency and the collective sector interests;
- individual agencies will be able to enhance their operational capacity as a result of the improvements in the management of information;
- the public will be assured that individual rights are protected;
- Ministers will be able to confirm that policy advice is founded on good quality data and that investment decisions are soundly based and take account of the interests of the Crown as a whole;
- policies and procedures will encourage best practice on all information matters;
- the justice sector will reflect the principles and practices being adopted for the public sector; and
- information on justice matters will be more widely available and accessible.

4.4. Key Definitions

4.4.1. The justice sector

The primary focus of the information strategy is on the institutions of state which are directly involved with the specification, purchase and delivery of justice related services.

These services extend from the investigation and prosecution of alleged criminal acts through to the resolution of disputes between individuals or agencies. Within their widest definition they encompass prevention, deterrence, diversion, arbitration, mediation, conciliation, adjudication, restitution, compensation or damages and education. They also include the review and development of policy and the specification, purchase and delivery of associated services.

4.4.2. Information

The term "information" can be a nebulous one. At its broadest level it can be defined as knowledge. More specific definitions vary according to the discipline being applied.

The information strategy focuses on all aspects of the information life cycles:

- creation and collection of data and information;
- storage and retrieval;
- access and security;
- retention and disposal;
- publication and availability (e.g. on the Internet); and
- collation and validation of data and information.

This includes common or core information. It covers a variety of types of information, including operational and aggregated data, statistics, documentary databases, libraries and administrative records. How the information is stored will be secondary to the broad principles governing what information is collected. Having said that, however, clearly there will be a need for technical standards to allow effective sharing of, and access to, information gathered.

Such information may be personalised or anonymous, general or particular and will always be subject to the limits set for its collection and intended use.

4.4.3. An information strategy

An information strategy is a set of attitudes in which:

• any information that should be available for sharing is well defined, appropriately accessible and cost justified;

Set of attitudes

• the quality of the information fits the purpose for which it is collected in terms of accuracy, relevance, consistency and comprehensiveness;

- all staff know and properly discharge their responsibilities towards information;
- mechanisms for determining priorities are clearly identified and acted upon and information management practices match those priorities; and
- policies and procedures are known and implemented.

Information strategy supports the business strategy A strategy provides a shared vision of the future where we want to be in the short, medium and long term. An information strategy must support business needs. It includes a commitment to best

practice principles that build on and support the vision.

<u>Guide to a process</u> An information strategy provides a framework and set of guidelines needed to achieve the vision and establishes the key milestones en route. It details the processes necessary to develop the appropriate attitudes, produce guidelines, achieve milestones and sets the agenda for change. An information strategy is therefore a guide to a process.

4.4.4. Objective of an information strategy

The objective of an information strategy is to have a clear, accepted and efficient process by which information of all kinds is created, handled and used to support business goals. This includes all types of information - text, data, voice, image, both manual and held on a computer.

4.5. Guiding Principles

The following principles will govern the design, collection, retrieval, access to, use and disposal of core common justice sector information:

- information is a strategic resource managed throughout its life cycle by the Crown on behalf of the public;
- information needs will be aligned with the business needs of individual justice sector agencies and the sector as a whole;
- privacy and confidentiality will be maintained;
- where practical and cost effective, information will be collected once and shared by authorised users;
- common definitions for shared justice sector information will be agreed to and implemented;
- shared or common information will be audited to ensure integrity and consistency of use;
- the collection, use and disposal of information will be subject to legal requirements, for example the Official Information Act, Privacy Act, Archives Act, Copyright Act and Statistics Act;
- information technology systems in the justice sector will be operated in accordance with agreed standards that allow access and sharing of common core information;
- justice sector agencies will progressively make official information easily and widely available; and
- justice sector information is a valuable source for producing official statistics.

Each of these principles translates into a set of behaviours, policies, procedures and technology requirements which are described in more detail below.

4.5.1. Information is a strategic resource

Effective management ensures that information is both accessible and of high quality. These factors are essential for supporting decision making.

Implications:

- policies for managing data need to be formulated;
- service standards for managing information need to be formulated; and
- the management of electronic and hard copy information needs to be integrated.

4.5.2. Information aligned to business needs

Alignment of information needs to business needs ensures that all information collections are either directly relevant to an individual agency or the sector as a whole or both. The purpose for each collection will be transparent and understood.

Agreement with this guideline translates into the following behaviours:

- scrutinising of the need for information;
- establishing the transparency of information collection process (what, why and how);
- ensuring the type of collection meets the agency's business need (on-going collection versus one-off survey); and
- consideration of the impact on the wider justice sector.

Implications:

- cost/benefit justification for each major information and technology investment produced; and
- the purpose for which the information will be used will be clearly defined.

4.5.3. Privacy and confidentiality

Understanding and application of the information privacy principles is essential to providing trusted quality data. Consideration of privacy, confidentiality and sensitivity must be addressed in policies, procedures and practices used in the justice sector.

Agreement with this guideline translates into the following behaviour:

• justice sector agencies understand and adhere to the information privacy principles.

Implications:

- policies will need to be developed governing access to personal information and how confidentiality of information is maintained;
- the purposes for which personal information is collected and maintained will need to be clearly identified;
- policies will need to be developed to inform the public of what personal information is collected and why;
- exchange protocols and confidentiality agreements will need to be established for the sharing of personal information;
- justice sector agencies will need to demonstrate that their information collection and management processes comply with rules governing privacy; and
- justice sector agencies will need to commit to training operational staff to ensure they are fully aware of information privacy issues and the impact on the use and distribution of personal information.

4.5.4. Collected once and shared by authorised users

Where practical and cost effective, data and information should be collected once and shared by authorised users. The single collection of information reduces costs by:

- ensuring required data are collected and entered, thereby eliminating or minimising duplication and reducing resultant errors;
- improving the consistency and quality of information; and
- reducing the time needed to gather information.

Agreement with this guideline translates into the following behaviours:

- confidence in the data supplied by each agency;
- willingness to have shared and common information audited;
- collection of information at the most appropriate point; and
- sharing of information where efficient.

Implications:

- sector-wide standards for describing and defining common and shared information will be required. Agreement to use common, core definitions is essential when sharing information;
- information will need to be maintained to ensure that it remains accessible and of a high quality;
- the privacy and security of information will need to be protected in accordance with the Privacy Act and best management practices;
- well defined, transparent collection and use of information will be needed;

- policies will be needed to guide the life cycle of information; and
- protocols will need to be established that enable the safe and secure exchange of information between agencies.

4.5.5. Common definitions

Common definitions are essential when information is shared and for undertaking analysis of key issues.

Agreement with this guideline translates into the following behaviours:

- agreeing on what information needs to be shared;
- agreeing on the process for standardising and maintaining data definition; and
- adopting and integrating the definitions into systems and training programmes.

Implications:

- a data dictionary needs to be prepared. Definitions should align with generally agreed definitions including those used by Statistics New Zealand. A process will need to be implemented that enables consensus to be achieved;
- data definitions will need to be maintained and reviewed regularly to ensure they meet on-going sector requirements;
- data definitions will need to be made highly accessible, preferably through electronic means; and
- agencies will be required to adhere to the definitions when exchanging information with other agencies. Internally, an alternative definition or format could be used providing that it can be translated to the agreed definition and format.

4.5.6. Ensuring integrity and consistency of use

Mechanisms are required to ensure that agreed definitions, policies and procedures have been implemented and result in improvements to the overall quality, accuracy, timeliness and consistency of information throughout the justice sector.

Agreement with this guideline translates into the following behaviours:

- the importance of accurate data will be recognised and valued; and
- data entry will become increasingly more reliable.

Implications:

• achievable quality standards will need to be developed and agreed;

- justice sector agencies will need to demonstrate that their information collection and management processes are consistent with the agreed approach for the sector;
- justice sector agencies will need to commit to training operational staff to ensure that guidelines are followed and staff are aware of the value of accurate information; and
- audit trails and validation rules will need to be implemented in systems.

4.5.7. Compliance with legislative requirements

The justice sector should lead New Zealand in compliance with the applicable legislative requirements.

Agreement with this guideline translates into the following behaviours:

- increased awareness of legislative requirements covering the collection, retention, access to and disposal of information; and
- commitment to ensuring that all collections comply with legislative requirements.

Implications:

- information management policies will need to be developed and implemented that comply with legislative requirements;
- aggregated personal information must be anonymous;
- an education programme will be established to raise awareness within the sector of legislative requirements; and
- justice sector agencies will need to demonstrate that their information collection and management processes comply with legislative requirements.

4.5.8. Compatible standards based systems

To create an environment and infrastructure that supports the safe and secure exchange of data and information between agencies requires adherence to agreed technical standards.

Agreement with this guideline translates into the following behaviours:

- justice sector agencies will work together to agree key technology standards; and
- justice sector agencies will implement standards based technologies.

Implications:

• technology standards will need to be developed covering security and data communication;

- additional standards may need to be developed covering data access and open systems; and
- approaches to how common information will be distributed, updated and accessed will need to be agreed.

4.5.9. Make official information easily and widely available

Under the Official Information Act Government agencies are required to progressively make information more available. Confidence in the justice sector will be enhanced through the publication of reliable and useful data on key issues produced on a regular basis.

Agreement with this guideline translates into the following behaviours:

- justice sector information will be used to produce official statistics;
- official information will be made increasingly more available to the public; and
- staff will understand and effectively apply the legislation in their dealings with the public.

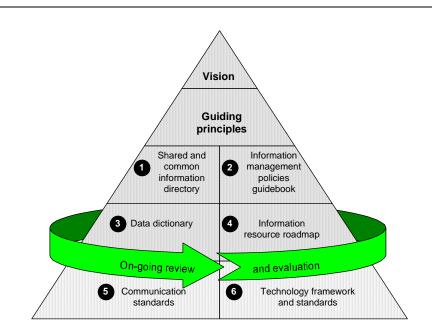
Implications:

- programmes will need to be maintained to inform the public on what information is collected and available and how this information can be obtained;
- policies will need to be developed outlining the conditions under which information is collected, made available, priced, kept secure and confidential and retained, destroyed or archived; and
- compliance costs associated with official information requests may be reduced; and
- statistical measures on justice issues will need to be developed and implemented.

4.6. Key Building Blocks (Deliverables)

Achieving the vision outlined in this strategy will require much work and effort. The following key "building blocks" are essential and their development will be the first priority for the strategy.

Figure 4- Key building blocks





1. Shared and common information directory This directory will identify and describe:

• the information flows between justice sector agencies;

- information requirements that are common between all agencies;
- requirements for electronic or manual access to the information; and
- locations where information can be found.

This directory will be a dynamic document maintained over time. It is anticipated that it will be made available electronically to ensure it is readily accessible.



2. Information management policies guidebook

This guidebook will describe the agreed information management policies and guidelines for implementation. In particular it will address:

creation and collection of data and

information;

- storage and retrieval;
- access and security;
- retention and disposal;
- publication and availability (e.g. on the Internet);
- collation and validation of data and information;
- data exchange protocols; and
- data quality standards and audit principles.

This guidebook will be a dynamic document maintained over time. It is anticipated that it will be made available electronically to ensure it is readily accessible.



3. Data dictionary

The data dictionary will contain all the agreed definitions, data formats and valid values for shared and common justice sector data. A data model for the shared and common information requirements will be included to provide context

for the definitions.

The data dictionary will be a dynamic document maintained over time. It is anticipated that it will be made available electronically to ensure it is readily accessible.



4. Information resource roadmap

This provides a guide and roadmap to the wealth of information existing and used in the justice sector. The stocktake of what information is held within the justice sector, contained within the previously published document "What's Where", represents the first step towards the production of

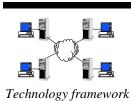
this roadmap.



5. Communication standards

The communication standards will comprise:

- the technology standards² for secure electronic communication;
- the message formats to be used for different exchanges;
- implementation guidelines; and
- tools that can be used optionally to support the implementation of the standards. This may comprise either a software development kit or endorsed set of packages that support the standards and simplify implementation.



and standards

6. Technology framework and standards

The technology framework will define the generic technology and standards required to support requirements for access to and exchange of information (as defined by deliverable 1). The communication standards will be a subcomponent of the overall technology framework

and standards. Some of the issues that may need to be addressed include:

- how requirements for access to common and shared information will be accommodated;
- what impact the approach taken to access and management of common information will have on individual agencies;
- how statistical data will be gathered and reported;
- what standards are required to support communication of documentary information; and
- how the components of the strategy will be made easily accessible and available to individual agencies.

² Technology standards define the de facto or de jure industry standards that are implemented in vendor systems to facilitate interoperability. Technology standards, therefore, facilitate choice while not dictating specific products.

4.6.1. Transition path

In practice each of the elements identified is complex and determining the necessary detail will require time and effort to achieve.

For example, a common understanding of frequently used words and phrases is required when sharing information. This requires the identification of the elements to be shared, prioritisation to establish which are relatively more important to whom and normalisation to align the various interests which may be reflected in the current range of definitions used by different agencies. The product of these activities will provide the basic information set.

Following this phase a process for agreeing definitions will be necessary, as will the process for recording and accessing the terms. This could involve the use of a data model and developing a data dictionary of such items. Access could be via written records or through electronic media including an on-line facility which could use Internet, intranet or a dedicated network. Finally the issues of version control and ongoing maintenance must be considered.

4.6.2. What needs to be done

Developing and implementing these deliverables is a four step process.

Step 1- Agree on and prioritise the work programme

The first step is to agree the priority order for the development of the core components or building blocks of the strategy. The components are defined in this strategic framework document but will need to be ratified and prioritised by the sector agencies before the next phase commences.

Step 2- Scope and resource the projects

The second step is to develop each of the components to the point where the level of detail required for effective application is available to the sector. This phase will commence immediately after the framework is endorsed. It is expected that the first priority components will be developed, agreed and piloted by the end of the 1996/97 financial year.

Step 3- Implement the core components

The deliverables define agreed policies, standards and definitions. It will be up to each agency to implement these deliverables according to internal priorities and availability of resources. This will be an evolutionary process. Realisation of the vision will only be achieved as core agencies implement the policies, processes and technologies that are developed.

Step 4- On-going review and evaluation

The development of these deliverables requires on-going commitment from sector agencies to support the process at the development and decision making levels. All of the strategy components will be subject to on-going review and evaluation to ensure changing needs and circumstances within the sector are addressed. This may involve the time of appropriately qualified technical and advisory staff as well as those in decision making positions. It may also involve some level of financial contribution to cover the costs of contracting in expertise and assistance which would not otherwise be available.

The process of developing the building blocks will be led and facilitated by the Ministry of Justice with support from key agencies. The various activities involved will be subject to oversight by the Justice Sector Information Committee to ensure that the commitment to a co-ordinated approach is maintained.

4.7. Critical Success Factors

The following factors will be critical to the success of the implementation of the strategy:

- the commitment and support of justice sector agencies;
- flexibility to meet the changing needs, differing stages of development and competing demands of the individual agencies and the sector;
- ensuring individual rights to privacy are protected;
- timely access to relevant, consistent sector-wide information;
- ensuring that the quality of information can be measured and audited;
- ensuring acceptability and implementation of common core data definitions when sharing information;
- commitment to sharing information where appropriate;
- improving the value of existing core datasets and using them productively; and
- ensuring clarity and understanding of access rights and protocols.

4.8. Implications

4.8.1. Use of technology

The justice sector is characterised by the need for individual agencies to work together. For example, the continuum of activity which constitutes the criminal justice system involves detection and apprehension, prosecution and enforcement activities which usually extend over three or more agencies. Within this environment large volumes of information need to be moved between agencies.

The use of information technology to assist in the co-ordination of inter-agency activities can improve the overall effectiveness of the system through:

- reduced duplication of effort and cost; and
- faster response times.

4.8.2. Working together

The proposed strategy is intended to provide the conceptual and policy information framework for the agencies which comprise the justice sector.

This will involve an on-going dialogue between the agencies concerned.

The experience in the formative stages of the strategy development has confirmed that the agencies concerned recognise and accept their wider responsibilities and are committed to the maintenance of a sector-wide approach. The strategy will support this commitment through the provision of a mechanism for maintaining effective information sharing and the co-ordination of work programmes.

4.8.3. Development costs

The development and maintenance of an information strategy for the sector is part of the business-as-usual responsibilities of the various agencies involved. As such the strategy will not be the subject of separate funding. Rather, the sector agencies will continue to contribute expertise and resources to manage tasks as they are identified. Where a clear co-ordinating activity occurs, the Ministry of Justice will seek appropriate resourcing and funding. This could include, for example, the tasks associated with maintaining a dynamic data dictionary and sector model.

The Ministry of Justice has made some provision for financial support of planned developments in 1996/97 and most agencies have indicated willingness to continue to make a contribution in kind. The extent of such contributions, however, will be dependent on the competing pressures and demands of existing workloads within each agency. There are indications that this may lead to a reduced level of input from some agencies which raises the issue of timing and also the possible impact on the outcome if participation levels are reduced. This issue will be explored further during the development of the detailed work plans.

4.8.4. Implementation costs

Adoption of the strategy may have implications for the internal investment decisions of the various agencies. It is expected that for the most part the implications will be positive in as much as they remove duplication and overlap inefficiencies. It is conceivable, however, that addressing the needs of one agency may lead to increased investment costs not just for that organisation, but for others. However, this would only happen if a cost benefit review established that the alternatives were more costly to the Crown. It may be, for example, that in not making the investment, significant costs would arise in other agencies as they tried to accommodate a system that ill-matched their own.

The strategy envisages that any request for additional funding to meet implementation costs, in the event such a situation arose, would be fully cost justified and dealt with on its individual merits. The strategy does not advocate or seek specific funding for implementation at this stage. Rather, effective implementation management which takes full account of the wider interests of the sector and the Crown is seen to be a business-as-usual responsibility for each agency.

5. Implementation

5.1. Preface

The strategy may take 3 years to fully implement The development and implementation of the key components of the justice sector information strategy will take the time and commitment of all affected agencies. There will be an initial period

of major activity as the work required to develop the deliverables, or key building blocks, is undertaken. This will start in the 1996/97 financial year and may take three years to fully implement. Each agency will need to determine their own implementation timeframes and priorities in accordance with their individual information strategies.

The key building blocks are not static. Instead, they will evolve to accommodate changes in the political and technology environments as they occur. The mechanisms established to support the initial development will therefore also need to accommodate ongoing maintenance and changes to the overall framework.

This part of the strategy focuses on how the key building blocks will be developed and the management framework required to ensure broad cross-sector participation and involvement.

5.2. Management framework and process

The management framework and processes define:

- what work needs to be undertaken to develop, maintain and enhance the key building blocks;
- how this work will be prioritised and managed;
- what resources are required; and
- how to maximise the use of scarce resources.

A number of projects will need to be completed to achieve the vision outlined in this strategy. Participation on these project teams will place an added burden on key individuals throughout the sector who are already stretched coping with the wide range of projects and changes currently underway. The longer term benefits of the strategy, however, will only be realised with the contributions of key people.

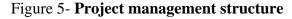
This section outlines a recommended framework for managing the work associated with the strategy and the options for maximising the contributions of scarce resources.

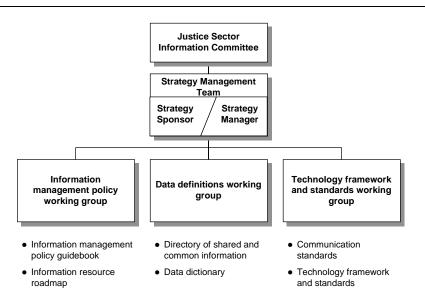
5.2.1. Methodology

A project management methodology will be used. The management framework defines the management reporting structure and processes required to:

- a) manage the projects initiated as part of the implementation of the strategy; and
- b) manage on-going changes to agreed standards and definitions.

Figure 5, illustrates the recommended structure. This structure builds on that used for the development of the strategy.





Justice Sector Information Committee (JSIC)

The JSIC membership includes senior management representatives from each of the core sector agencies with assistance from the Privacy Commissioner and Government Statistician. The Committee will be responsible for:

• approving and prioritising projects established under the strategy;

- ensuring that the people and/or resources required to undertake project work are made available from within each agency;
- securing funding for projects from agencies and the Crown;
- monitoring the progress of the individual working groups, and resolving issues where these occur; and
- approving the outputs from the working groups.

Strategy management team

The strategy management team is led by the overall sponsor for projects initiated under the strategy. Currently the sponsor role is undertaken by the Ministry of Justice and led by the Chief Information Officer. The responsibilities of the strategy management team will involve:

- keeping all parties informed on activities and progress;
- co-ordination and liaison with key agencies and other interested groups (e.g. users);
- development of detailed project plans for approval by JSIC;
- co-ordination of the day-to-day work of the working groups;
- co-ordination of the work of external consultants/experts;
- preparation of status reports and minutes of meetings;
- documentation, publication and dissemination of key documents and outputs;
- resolution of issues as they arise; and
- meeting reporting requirements.

Working groups

Working groups will be responsible for the initial development and maintenance of the deliverables defined under the strategy. Each agency will be represented on these groups. The role of the groups will be to:

- define how the detailed work will be undertaken;
- review the work undertaken by members of the team;
- report progress to the strategy management team; and
- manage on-going changes to policies and standards once they have been established.

5.3. Working group responsibilities

This section provides an initial outline of the work to be undertaken by each of the working groups and the skills required to undertake that work. If required, the working groups may break this work into several sub-projects with focused teams responsible for the detailed work.

Detailed work plans are being prepared to identify the objectives, outputs and resources required for each project.

5.3.1. Information management policies working group

Goal of the group:

To identify the types of information to be shared, develop consistent information management policies and procedures and define the mechanisms for ensuring these are implemented.

Key deliverables:

- Information management policies guidebook.
- Information resource roadmap.

Scope:

Best practice principles from key agencies and policies relating to shared or collective information resources.

Approach:

- determine current best practice guidelines (e.g. through literature search);
- survey current practices within the sector and elsewhere;
- review and analyse existing policies and practices;
- benchmark existing policies against best practices principles;
- produce draft guidelines and policies for review and discussion;
- publish recommendations;
- develop plans for implementation of policies; and
- develop monitoring and audit processes.

Team organisation and resourcing:

A core team comprising information management expertise will be established to undertake the majority of the detailed work and to quality assure the final products.

Skills Required:

- research and analysis skills;
- information management expertise;
- experience and knowledge of justice sector information holdings and use;
- communication skills;

- ability to work with a range of professionals, including users of information; and
- specialist expertise e.g. National Library, National Archives.

5.3.2. Data definitions working group

Goal of the group:

To improve access to common, consistent data through identification of the location of data and standardisation of data definitions.

Key deliverables:

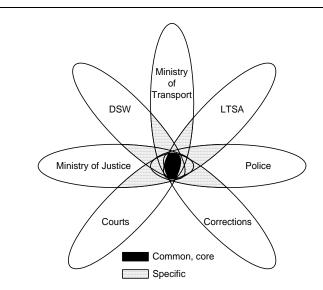
- Shared and common information directory
- Data dictionary

Scope:

The work for this group is restricted to:

- those parts of the justice data model that are common to all agencies; and
- those parts that are common to two or more agencies.

Figure 6- Scope of data modelling exercise



Approach:

- establish data modelling environment. Select a data modelling tool compatible with existing models under development in the sector;
- identify overlapping information and data requirements. Obtain copies of existing data models and review material available through the stock-take. Identify inter-agency information flows;

- develop data model covering common needs and specific sector interactions (see Figure 6). Incorporate existing definitions available within the sector. Document where the data exist;
- assess gaps in the model between currently available data elements and required data elements. This will require identification of each agency's requirements for sector-wide information;
- refine data model and agree common definitions and valid values; and
- define access and archiving requirements for common data elements.

Team organisation and resourcing:

- a core team comprising a data modelling expert and justice sector expertise will be established to undertake the majority of the detailed work; and
- a review group comprising representatives from within the sector will provide input into the process and review and agree the output.

Skills required:

- data modelling and definitions expertise;
- consultation and negotiation skills; and
- ability to achieve consensus through appropriate processes.

5.3.3. Technology framework and standards working group

Goal of the group:

The goal of this group is to:

- a) define the agreed approach and standards required to support secure data interchange within the justice sector;
- b) define the agreed approach and standards required to support secure access to shared, common information; and
- c) achieve the commitment and buy-in of the sector to the infrastructure that needs to be established.

Key deliverables:

- Communication standards; and
- Technology framework and standards.

Scope:

The scope of this work is restricted to defining how common information will be accessed and how secure data interchange will occur in the sector. The work on this project will also rely on input from the other projects to identify and define information, security and data access requirements.

Approach:

- identify data to be shared. (This work will be undertaken by the data definitions groups.);
- identify access and retention requirements;
- identify document management requirements;
- identify existing approaches to data interchange in the sector;
- identify existing approaches to storing and managing historical data in the sector;
- define preferred security requirements;
- define technical requirements (open systems, compatibility to existing systems etc.);
- define technical options for meeting these requirements;
- produce and agree recommendations;
- develop and publish detailed standards; and
- develop plans for the implementation of required components.

A key factor contributing to the success of this project is to link the work to specific requirements that already exist in the sector and demonstrate the ease of use, cost effectiveness, and practicality of the recommended approach. This will provide the team with facts from which recommendations can be made and standards set.

Team organisation and resourcing:

- two core teams will be established; one to focus on the technology and standards required to facilitate data interchange; the other to focus on the technology required to facilitate access to data located throughout the sector; and
- a review group comprising representatives from within the sector will provide input into the process and review and agree the output.

Skills required:

- research and analysis skills;
- vendor management skills;
- broad technology awareness/expertise (distributed databases, Intranets, Groupware, messaging, networking, technology standards, end user access tools);
- database/data warehousing technical skills;
- communication standards and network skills; and
- cost/benefit analysis skills.

5.3.4. Agreeing project specifications

The project specifications outlined in this section describe the work of the three proposed working groups. The working groups may decide to establish smaller development teams focused on specific areas of interest. These specifications will be further refined and evaluated in consultation with the Justice Sector Information Committee prior to being initiated.

6. Conclusion

The justice sector is a major creator and user of information and part of the knowledge sector The justice sector is a major creator and user of information. All sector agencies require ongoing access to a range of information sources, from operational records to documentary databases, from published material to aggregate

statistics. The sector is clearly a part of the knowledge based era of Government and business activity and must become more proficient in the management of information as we move towards the 21st century.

The information strategy provides the leadership, framework and agenda for maximising the benefit from effective use of information. Successful implementation of the information strategy will ensure that the New Zealand justice sector is able to move with confidence into the 21st century.

Relevant, timely and accurate information will be available and accessible to authorised users to support the business needs of all agencies in the justice sector and their customers.

Justice Sector Information Committee Membership

The Justice Sector Information Committee has been vital to ensuring the substantial progress made in developing the strategy. This committee was formed in November 1995 and will continue to oversee the implementation and ongoing development of the strategy. The member ship of this group includes:

Judith Johnston (Chair)	Chief Information Officer Ministry of Justice
Greg Batchelor	Director Information & Technology
	New Zealand Police
Katrina Casey	General Manager Strategic
	Development
	Department of Corrections
Len Cook	Government Statistician
	Statistics New Zealand
Tony Crewdson	Superintendent
	New Zealand Police
Ian Ewing	Deputy Government Statistician
	Statistics New Zealand
Ron Lovell	Social Policy Agency
	Department of Social Welfare
Maria McKinley	General Manager Development
	Department for Courts
Stewart Milne	Secretary
	Ministry of Transport
Alan Nixon	Chief Policy Adviser
	Department of Social Welfare
Bruce Slane	Privacy Commissioner
David Smyth	Deputy Secretary
	Ministry of Justice
Blair Stewart	Manager, Codes & Legislation
	Privacy Commission
Tony West	Manager Special Projects
	Land Transport Safety Authority

Acknowledgements

Many people and organisations have been involved in helping to identify the issues, to finding solutions and to developing the strategy. The commitment shown to improving our justice sector information to meet our needs and to help develop them to world class standard has been demonstrated in the co-operation and work to date. The particular contribution made by the working group members is acknowledged.

Alanna Barnao	Ron Lovell
Greg Batchelor	Phil McCaw
John Belgrave	Maria McKinley
Denise Brown	Helen Meehan
Bob Calland	Ian Miller
Katrina Casey	Stewart Milne
Clive Cooper	Murray Mitchell
Len Cook	Alan Nixon
Tony Crewdson	David Olds
Bruce Dean	Judy Paulin
James Doak	Chris Richardson
John Edwards	David Sercombe
Duane Evans-Parker	Kamila Skapa
Ian Ewing	Bruce Skinner
Philippa Fogarty	Bruce Slane
Sharleen Forbes	David Smyth
Bob Gibson	Philip Spier
Sharyn Gregory	Blair Stewart
Louise Iseke	Caroline Taylor
Andrew Jack	Roger Toleman
Tony Johns	Tony West
Judith Johnston	Dick Williams
Karl Le Quesne	David Yeboah

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Appendix 1 Current systems, information flows and use

The tables below extract information from the Wanganui system data model to show existing systems and how information flows from source through to management information. The last column shows the sub-systems that provide operational and other support.

Within the Wanganui computer system there are three main types of systems: Offender related systems, Registries and external systems.

Source	Inputs	Outcomes	Management Information	Other
Police Criminal, traffic, persons / vehicles / property of interest	Computer aided dispatch Incident & offences reporting	Document management locator & admin. system	Incident & offences statistics CAD statistics Crime trend analysis	Operations e.g. on-line help & security Modus Operandi Charge manual Family Violence
Department for Courts Case Records, fines enforcement, breaches of Community Sentences	Case information Parking, speed camera & traffic offence information	Sentences: Imprisonment, & Supervision Monetary penalties	Fines management Management plan Case flow Activity analysis	Fines management Case monitoring
				Dept of Corrections Custody supervision
Land Transport Safety Authority		Disqualified drivers Demerit point system	Traffic enforcement statistics	
Local Authorities Parking infringement				All
notices		MASTER NAMES and CRIMINAL & TRAFFIC HISTORIES		Common offence codes Message switching

Offender related systems

Registers

Agency	Registers	Purpose	Link to Wanganui sub- systems
Land Transport Safety Authority	National Driver Licence Register Transport Automotive Survey System Transport Service Licencing Register	Driver licence registration Other transport Licencing & inspection functions	Master names Persons of interest Vehicles of interest Criminal & traffic histories Traffic Camera Fines identities Traffic tickets Master Persons
Ministry of Transport	Motor Vehicle Register	Motor vehicle registration	[As above]
Police	Fire Arms	Fire Arms Registration	Persons of Interest Master Persons

Links to/from external systems

Source	Input/Output	Purpose
Police photo numbers	Photo numbers recorded in Master Persons	Updates master persons sub system
LTSA Host	Motor vehicle registrations	Updates Motor vehicle register
Police Traffic Camera Office	Traffic camera fines	Updates traffic camera sub- system
Westpac	Fines paid	Updates fines paid to the Department for Courts at all WestPac branches
Department for Courts FMIS	Fines disbursements	Disbursement of fines paid
Local Authorities parking infringement notices	Fines outstanding on infringement notices issued by local authorities	Updates parking infringement sub-system and case monitoring sub-system

Appendix 2 Information Privacy Principles

Privacy Act 1993

INFORMATION PRIVACY PRINCIPLES

PRINCIPLE 1

Purpose of collection of personal information

Personal information shall not be collected by any agency unless-

- (a) The information is collected for a lawful purpose connected with a function or activity of the agency; and
- (b) The collection of the information is necessary for that purpose.

PRINCIPLE 2

Source of personal information

- (1) Where an agency collects personal information, the agency shall collect the information directly from the individual concerned.
- (2) It is not necessary for an agency to comply with subclause (1) of this principle if the agency believes, on reasonable grounds,-
 - (a) That the information is publicly available information; or
 - (b) That the individual concerned authorises collection of the information from someone else; or
 - (c) That non-compliance would not prejudice the interests of the Individual concerned; or
 - (d) That non-compliance is necessary-

- (i) To avoid prejudice to the maintenance of the law by any public sector agency, including the prevention, detection, investigation, prosecution, and punishment of offences; or
- (ii) For the enforcement of a law imposing a pecuniary penalty; or
- (iii) For the protection of the public revenue; or
- (iv) For the conduct of proceedings before any court or Tribunal (being proceedings that have been commenced or are reasonably in contemplation); or
- (e) That compliance would prejudice the purposes of the collection; or
- (f) That compliance is not reasonably practicable in the circumstances of the particular case; or
- (g) That the information-
 - (i) Will not be used in a form in which the individual concerned is identified; or
 - (ii) Will be used for statistical or research purposes and will not be published in a form that could reasonably be expected to identify the individual concerned; or
- (h) That the collection of the information is in accordance with an authority granted under section 54 of this Act.

PRINCIPLE 3

Collection of information from subject

- (1) Where an agency collects personal information directly from the individual concerned, the agency shall take such steps (if any) as are, in the circumstances, reasonable to ensure that the individual concerned is aware of-
 - (a) The fact that the information is being collected; and

- (b) The purpose for which the information is being collected; and
- (c) The intended recipients of the information; and
- (d) The name and address of-
 - (i) The agency that is collecting the information; and
 - (ii) The agency that will hold the information; and
- (e) If the collection of the information is authorised or required by or under law,-
 - (i) The particular law by or under which the collection of the information is so authorised or required; and
 - (ii) Whether or not the supply of the information by that individual is voluntary or mandatory; and
- (f) The consequences (if any) for that individual if all or any part of the requested information is not provided; and
- (g) The rights of access to, and correction of, personal information provided by these principles.
- (2) The steps referred to in subclause (1) of this principle shall be taken before the information is collected or, if that is not practicable, as soon as practicable after the information is collected.
- (3) An agency is not required to take the steps referred to in subclause (1) of this `principle in relation to the collection of information from an individual if that agency has taken those steps in relation to the collection, from that individual, of the same information or information of the same kind, on a recent previous occasion.
- (4) It is not necessary for an agency to comply with subclause (1) of this principle if the agency believes, on reasonable grounds,-
 - (a) That non-compliance is authorised by the individual concerned; or

- (b) That non-compliance would not prejudice the interests of the individual concerned; or
- (c) That non-compliance is necessary-
 - (i) To avoid prejudice to the maintenance of the law by any public sector agency, including the prevention, detection, investigation, prosecution, and punishment of offences; or
 - (ii) For the enforcement of a law imposing a pecuniary penalty; or
 - (iii) For the protection of the public revenue; or
 - (iv) For the conduct of proceedings before any court or Tribunal (being proceedings that have been commenced or are reasonably in contemplation); or
- (d) That compliance would prejudice the purposes of the collection; or
- (e) That compliance is not reasonably practicable in the circumstances of the particular case; or
- (f) That the information-
 - (i) Will not be used in a form in which the individual concerned is identified; or
 - (ii) Will be used for statistical or research purposes and will not be published in a form that could reasonably be expected to identify the individual concerned.

PRINCIPLE 4

Manner of collection of personal information

Personal information shall not be collected by an agency-

- (a) By unlawful means; or
- (b) By means that, in the circumstances of the case,-
 - (i) Are unfair; or

(ii) Intrude to an unreasonable extent upon the personal affairs of the individual concerned.

PRINCIPLE 5

Storage and security of personal information

An agency that holds personal information shall ensure-

- (a) That the information is protected, by such security safeguards as it is reasonable in the circumstances to take, against-
 - (i) Loss; and
 - (ii) Access, use, modification, or disclosure, except with the
 authority of the agency that holds the information; and
 - (iii) Other misuse; and
- (b) That if it is necessary for the information to be given to a person in connection with the provision of a service to the agency, everything reasonably within the power of the agency is done to prevent unauthorised use or unauthorised disclosure of the information.

PRINCIPLE 6

Access to personal information

- (1) Where an agency holds personal information in such a way that it can readily be retrieved, the individual concerned shall be entitled-
 - (a) To obtain from the agency confirmation of whether or not the agency holds such personal information; and
 - (b) To have access to that information.
- (2) Where, in accordance with subclause (1)(b) of this principle, an individual is given access to personal information, the individual shall be advised that, under principle 7, the individual may request the correction of that information.

(3) The application of this principle is subject to the provisions of Parts IV and V of this Act.

PRINCIPLE 7

Correction of personal information

- (1) Where an agency holds personal information, the individual concerned shall be entitled-
 - (a) To request correction of the information; and
 - (b) To request that there be attached to the information a statement of the correction sought but not made.
- (2) An agency that holds personal information shall, if so requested by the individual concerned or on its own initiative, take such steps (if any) to correct that information as are, in the circumstances, reasonable to ensure that, having regard to the purposes for which the information may lawfully be used, the information is accurate, up to date, complete, and not misleading.
- (3) Where an agency that holds personal information is not willing to correct that information in accordance with a request by the individual concerned, the agency shall, if so requested by the individual concerned, take such steps (if any) as are reasonable in the circumstances to attach to the information, in such a manner that it will always be read with the information, any statement provided by that individual of the correction sought.
- (4) Where the agency has taken steps under subclause (2) or subclause (3) of this principle, the agency shall, if reasonably practicable, inform each person or body or agency to whom the personal information has been disclosed of those steps.
- (5) Where an agency receives a request made pursuant to subclause(1) of this principle, the agency shall inform the individual concerned of the action taken as a result of the request.

PRINCIPLE 8

Accuracy, etc, of personal information to be checked before use

An agency that holds personal information shall not use that information without taking such steps (if any) as are, in the circumstances, reasonable to ensure that, having regard to the purpose for which the information is proposed to be used, the information is accurate, up to date, complete, relevant, and not misleading.

PRINCIPLE 9

Agency not to keep personal information for longer than necessary

An agency that holds personal information shall not keep that information for longer than is required for the purposes for which the information may lawfully be used.

PRINCIPLE 10

Limits on use of personal information

An agency that holds personal information that was obtained in connection with one purpose shall not use the information for any other purpose unless the agency believes, on reasonable grounds,-

- (a) That the source of the information is a publicly available publication; or
- (b) That the use of the information for that other purpose is authorised by the individual concerned; or
- (c) That non-compliance is necessary-
 - (i) To avoid prejudice to the maintenance of the law by any public sector agency, including the prevention, detection, investigation, prosecution, and punishment of offences; or
 - (ii) For the enforcement of a law imposing a pecuniary penalty; or
 - (iii) For the protection of the public revenue; or
 - (iv) For the conduct of proceedings before any court or Tribunal (being proceedings that have been commenced or are reasonably in contemplation); or
- (d) That the use of the information for that other purpose is necessary to prevent or lessen a serious and imminent threat to-
 - (i) Public health or public safety; or

- (ii) The life or health of the individual concerned or another individual; or
- (e) That the purpose for which the information is used is directly related to the purpose in connection with which the information was obtained; or
- (f) That the information-
 - (i) Is used in a form in which the individual concerned is not identified; or
 - (ii) Is used for statistical or research purposes and will not be published in a form that could reasonably be expected to identify the individual concerned; or
- (g) That the use of the information is in accordance with an authority granted under section 54 of this Act.

PRINCIPLE 11

Limits on disclosure of personal information

An agency that holds personal information shall not disclose the information to a person or body or agency unless the agency believes, on reasonable grounds,-

- (a) That the disclosure of the information is one of the purposes in connection with which the information was obtained or is directly related to the purposes in connection with which the information was obtained; or
- (b) That the source of the information is a publicly available publication; or
- (c) That the disclosure is to the individual concerned; or
- (d) That the disclosure is authorised by the individual concerned; or
- (e) That non-compliance is necessary-
 - (i) To avoid prejudice to the maintenance of the law by any public sector agency, including the

prevention, detection, investigation, prosecution, and punishment of offences; or

- (ii) For the enforcement of a law imposing a pecuniary penalty; or
- (iii) For the protection of the public revenue; or
- (iv) For the conduct of proceedings before any court or Tribunal (being proceedings that have been commenced or are reasonably in contemplation); or
- (f) That the disclosure of the information is necessary to prevent or lessen a serious and imminent threat to-
 - (i) Public health or public safety; or
 - (ii) The life or health of the individual concerned or another individual; or
- (g) That the disclosure of the information is necessary to facilitate the sale or other disposition of a business as a going concern; or
- (h) That the information-
- (I) Is to be used in a form in which the individual concerned is not identified; or
 - (i) Is to be used for statistical or research purposes and will not be published in a form that could reasonably be expected to identify the individual concerned; or
 - (ii) That the disclosure of the information is in accordance with an authority granted under section 54 of this Act.

PRINCIPLE 12

Unique identifiers

(1) An agency shall not assign a unique identifier to an individual unless the assignment of that identifier is necessary to enable the agency to carry out any one or more of its functions efficiently.

- (2) An agency shall not assign to an individual a unique identifier that, to that agency's knowledge, has been assigned to that individual by another agency, unless those 2 agencies are associated persons within the meaning of [section OD 7 of the Income Tax Act 1994].
- (3) An agency that assigns unique identifiers to individuals shall take all reasonable steps to ensure that unique identifiers are assigned only to individuals whose identity is clearly established.
- (4) An agency shall not require an individual to disclose any unique identifier assigned to that individual unless the disclosure is for one of the purposes in connection with which that unique identifier was assigned or for a purpose that is directly related to one of those purposes.

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