

ICT STRATEGIC PLAN 2008–11



ICT STRATEGY DEVELOPMENT PROJECT



*“Setting the Direction for the Board’s
Information and Communication Technology Services”*

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1 EXECUTIVE SUMMARY

1.1 Purpose

The objective of this “ICT Strategic Plan” is to support the business objectives of the Private Residential Tenancies Board (PRTB) by setting out a comprehensive, three year, information and communication technology strategic plan for the Board.

This document provides the PRTB with a strategic direction for its information systems and guides the use of information and communication technology to support the achievement of its business goals. It will serve as the principal working document for guiding technical, staffing and financial issues relating to the development, use and support of ICT infrastructure and facilities at PRTB. It will also form the basis of a roadmap for evolution of information technology during the next three years, i.e. until the end of 2011.

1.2 ICT within the PRTB

Since its genesis in 2001 the PRTB has never had a formal information and communication technology (ICT) strategy in place, instead the organisations technical infrastructure has evolved on a rather ad-hoc basis – albeit with several major initiatives in relation to key systems and also the recent office relocation. However the PRTB has always recognised the utility and importance of ICT and its use has become a critical component in the delivery of services and the general operation of the Board.

Mazars was appointed in March 2008 to support the PRTB in a two phase strategic initiative for improving information and communication technology use within the Board, split as follows:

- **Part 1:** Develop a three year ICT Strategy and action plan for the PRTB that supports its business needs and objectives.
- **Part 2:** Support the PRTB as required in the delivery of individual implementation projects in order to fulfil the strategy – including requirements definition, tender process, system implementation and project management.

This document represents part of the outputs from Part 1 of the project, which delivered in accordance with the Project Initiation Document (PID 1.0, dated 4 April 2008) agreed with the PRTB Project Manager at the outset of the project. A preceding Current State Assessment Report has been presented to the PRTB under a separate cover.

1.3 ICT Vision

The ICT vision, for the PRTB may be expressed as follows:

Information and Communication Technology will be dedicated to supporting the objectives of the Board; facilitating the work of its staff; improving the quality of the services that it provides; and achieving a high level of satisfaction in the delivery of these services.

1.4 ICT Strategic Tracks

In order to achieve the ICT vision articulated in this document, a significant body of work must be undertaken over the next few years within the PRTB. This body of work has been organised into bundles of tasks/ requirements which are referred to as a “Strategic Track”.

These Strategic Tracks are based on the identified business goals and requirements as set out in Section 3 of this document may be presented as follows:

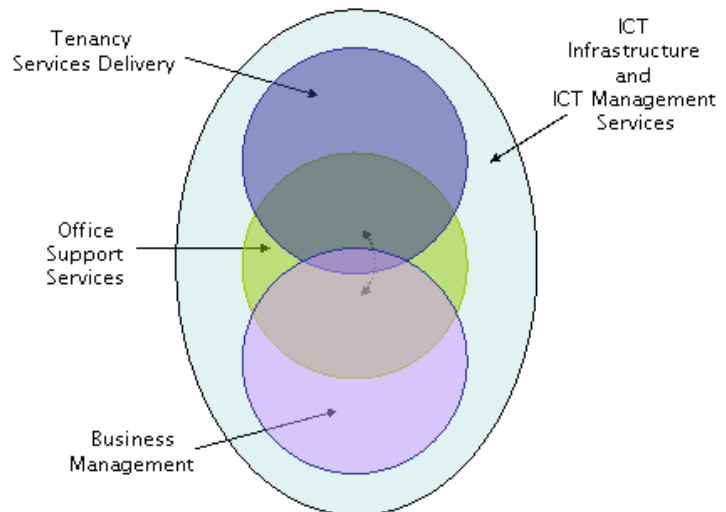
Track	Recommendation	Objectives And Requirements Supported
T1.	Develop and implement appropriate ICT governance and ICT organisation structures	R4/R5/R7
T2.	Develop and Implement ICT Related Policies and Procedures	R1 /R2/R3/R4/R5/R6
T3.	Enhance reporting capabilities and management information provisions	O3/O5/O6 R5/R7/R10
T4.	Develop and implement a single integrated solution to support the core registration and dispute business processes including case tracking and management	O1/ O2/ O5 R1 /R2/R3/R6/R10
T5.	Improve the PRTB’s Web Presence and introduction a range of on-line services	O1/O2/O4/O5 R2/R3/R5/R10
T6.	Select and implement new finance systems	R1/R2/R3/R4/R6

Track	Recommendation	Objectives And Requirements Supported
T7.	Improve communications and the provision of information (internal and external)	O2/O4/O5 R2/R5/R10
T8.	Develop an ICT business continuity/ disaster recovery plan	O2 R5/R6/R7
T9.	Expand ICT Education and Training Opportunities	R5/R6/R7/R8
T10.	Maximise value for money and return on ICT investment.	R4/R7/R9

Each of these tracks is described in further detail in Section 6 of this document.

A number of key recommendations are made to realise these tracks, the most significant of which are:

- Discontinue the use of the RACTS system
- Utilise “Internet” and “web” technologies for the delivery of tenancy and other services via the Intranet
- Integrate information systems in order to eliminate duplication, avoid unnecessary incompatibilities and reduce IT support costs.



1.5 Target Environment

Each functional area within the practice will adopt a standard and well integrated product set.

- For tenancy services, the focus will be on the development of a new registration system that supports interactive web enabled services, providing PRTB with seamless access to data, information, and knowledge

- The business management function will select and implement a new financial system to replace MyOB, this will drive and influence the selection of supporting systems (including time sheets, budgeting and resource management)
- Office support functions will primarily use *de facto* standard Microsoft solutions
- The current ICT infrastructure will be maintained and upgraded as required

In addition, the delivery of services (internally and to the client) will be greatly improved in efficiency, effectiveness and capability by the introduction of “internet” type technologies.

1.6 Cost

The indicative cost of the implementation of this strategy may be presented as follows:

[Deleted]

Mazars would like to thank all of the staff in the PRTB for their enthusiasm and participation in the preparation of both the Current State Assessment report and this subsequent ICT Strategy.

2 INTRODUCTION

2.1 Background to This ICT Strategic Plan

Mazars was appointed in March 2008 to support the Private Residential Tenancies Board (PRTB) in the development of Information and Communication Technology (ICT) within the Board; the assignment is split across two parts as follows:

- **Part 1:** Develop a three year ICT Strategy and action plan for the PRTB that meets its business needs and objectives.
- **Part 2:** Assist the PRTB as required in the delivery of individual implementation projects in order to fulfil the strategy – including requirements definition, tender process, system implementation and project management.

In turn Part 1 of the project was further split into a series of phases as follows:

- **Phase I** Initiate Project
- **Phase II** Review of Current Technology and Environment
- **Phase III** Strategic Requirements Definition
- **Phase IV** Gap Analysis
- **Phase V** Development of an ICT Strategy
- **Phase VI** Development of a Work Programme
- **Phase VII** Development of a Technology Roadmap

This document represents part of the output from Part 1 Phase V of the project, delivered in accordance with the Project Initiation Document (Version 1.0, dated 4 April 2008) agreed with the PRTB Project Manager at the outset of the project. A detailed analysis and Current State Assessment Report has been presented to the PRTB under separate cover.

Once the strategy outlined in this document is approved by the Board, Part 1 of the project will then be completed by the preparation of a work programme which will set out, on a track by track basis, the steps required to implement the ICT strategy within the PRTB.

2.2 Terms of Reference

The terms of reference for this project were as follows:

- Comment on & review the existing ICT Strategy in the areas of infrastructure and network and suggest additions to and changes, in conjunction with PRTB's ICT team, based on supplier experience and knowledge.

- Comment on & review the principal registration database and suggest additions to and/or changes in conjunction with the PRTB's management and ICT team, based on supplier experience and knowledge.
- Prepare a detailed costed ICT work programme based on the ICT strategy above, in the areas of infrastructure and network.
- Prepare a technology roadmap, based on the ICT work programme above, for the PRTB to include all potential development work over the course of the project.
- Involve all stakeholders including:
 - PRTB ICT unit
 - PRTB Senior Management Team
 - Third party suppliers
- Assist with the delivery of the ICT strategy over the next 3 years where required. Assistance will include drafting of 'request (s) for tender', analysis and scoring of tenders and project management of the implementation of the various stages of the ICT strategy.

2.3 Objectives of This Document

This document seeks to set out a comprehensive information technology strategic plan for the PRTB.

The current ICT facilities and services at PRTB have been described in a separate report¹, but in general it should be noted that Information and Communication Technology (ICT) is vital to the operation of the PRTB and in supporting its customer/ stakeholder basis.

The nature of the activities which are required to be carried out by the PRTB under the terms of the *Residential Tenancies Act 2004* lend themselves to the extensive use of technology in support of business processes. However due to the short timeframe required to implement the legislation following the establishment of the Board and the volume of activity experienced thereafter, it has no, heretofore been possible to harness technology to any significant extent and a number of critical gaps were apparent at the date of our review.

The objective of this "ICT Strategic Plan" is to support the business objectives of the Private Residential Tenancies Board by suggesting an appropriate strategy for the management of information technology within the organisation. It provides the PRTB with a strategic direction for its information systems, and guides the use of information and communication technology to support the achievement of its goals. It will form the basis of a roadmap for implementation of information technology during the next three years, until the end of 2011. This document should now serve as the management's principal working document for guiding technical, staffing and

¹ Current State Assessment Report, dated July 2008

financial issues relating to the development, use and support of IT infrastructure and facilities at PRTB.

The specific objectives of this document include:

- The setting out an ICT strategy to support the organisational development of the PRTB over the period 2008 – 2011
- Providing recommendations for improved technology that will support the achievement of the PRTB's goals
- Presenting a series of tasks which are required in order to ensure that the day to day activities of the ICT function are being managed effectively and that risk is being managed
- Presenting a series of ICT projects, which are required to be implemented outside the normal day to day operation of the PRTB, in order to achieve its long term business objectives
- Setting out a high level ICT budget which will serve as a yardstick against which spending will be evaluated.
- Setting out a series of key performance indicators (KPI's) against which ICT performance will be measured.

We suggest that this ICT strategy should be implemented on a measured year by year basis, by means of a series of annual implementation plans. These plans should be flexible and responsive to changes in technology and the needs of the Board.

3 CONTEXT FOR IT STRATEGIC PLANNING

3.1 Current ICT Environment

Since its genesis in 2001 the PRTB has never had a formal information and communication technology (ICT) strategy in place, instead the organisations technical infrastructure have evolved on a rather ad-hoc basis – albeit with several major initiatives in relation to key systems and the recent office relocation. However the PRTB has always recognised the utility and importance of ICT and its use has become a critical component in the delivery of services and the general operation of the Board.

The current organisation and use of technology use within the PRTB is detailed in a separate report – Current State Assessment, dated July 2008, and so will not be repeated here. However the following points should be noted:

[Deleted]

This strategy utilises an integrated approach for the use of technology to meet the goals of the Board. The strategy establishes a vision for Information and Communication Technology Services that will keep pace with an evolving, interactive, collaborative electronic environment, providing seamless access to data, information, and knowledge in an effort to meet the needs of the Board.

3.2 Business Objectives

The PRTB's *Annual Report Annual Report 1/9/2004 – 31/12/2005* identifies the following functions for the organisation:

Business Goal	Description
O1.	The resolution of disputes between tenants and landlords in accordance with the provisions of Part 6 of the Residential Tenancies Act 2004.
O2.	The registration of particulars in respect of tenancies in accordance with the provisions of Part 7 of the <i>Residential Tenancies Act 2004</i> .
O3.	The provision to the Minister of advice concerning policy in relation to the private rented sector.
O4.	The development and publication of guidelines for good practice by those involved in

Business Goal	Description
	the private rented sector.
O5.	The collection and provision of information relating to the private rented sector, including information concerning prevailing rent levels.
O6.	Where the Board considers it appropriate, the conducting of research PRTB the private rented sector and monitoring the operation of various aspects of the private rented sector or arranging for such research and monitoring to be done.
O7.	The review of the operation of the Residential Tenancies Act 2004 (and in particular Part 3) and any related enactments and the making of recommendations to the Minister for the amendment of the Act or those enactments.
O8.	The performance of any additional functions conferred on the Board by the Minister.

These goals should govern the way in which the ICT function develops and have been taken in to account when developing this strategy.

3.3 Business Drivers and Future Developments Impacting the Strategy

On the basis of the evolving nature of the PRTB, the following are some of the business drivers anticipated future changes to the organisation which the ICT Strategy has taken in to consideration include:

[Deleted]

- Continuing pressure to reduce processing times while improving service quality
- Alignment of costs with income, with limited opportunities to increase fees
- The need to automate repetitive and time consuming processes
- The desire to reduce paper records and associated filing and record keeping
- A demand for services outside normal working hours (including web based on-line services)
- Third party requests for reliable, high quality, up-to-date registration related data
- More formalisation of working practices
- Requirements for better monitoring, tracking and reporting in order to reduce business risk

- A need for easy access to accurate and up-to-date information and statistics by senior management and Board members, and for provision to third parties (including PQs).

3.4 Issues and Challenges Impacting the Strategy

The environment in which PRTB has been operating has been continually evolving and becoming more complex. In addition technological advancements place pressure on the PRTB to provide a range of innovations to meet not only the expectations of its own internal staff but increasingly its wider community of “customers”. The key issues and challenges that the ICT Strategy has taken PRTB consideration in the development of this strategy include:

3.4.1 Technology Advancement

The PRTB can provide additional or enhanced services using new technology (e.g. internet, document management, electronic forms, e-filing, on-line payment services). Providing these services require investment in the development of new applications and improvements to the underlying technical infrastructure of the Board. Technology innovation has the potential to substantially transform the way in which the PRTB operates, but with the consequent challenges associated with major business change and issues around security and authenticity.

3.4.2 Provision of Information

The PRTB is facing increasing demands for public accountability and access to information through various communication channels including a demand for access to real-time information, to registration information, and to integrated information which has implications under the Freedom of Information and Data Protection Acts. The ICT Strategy makes recommendations around the provision of improved information, integrated information management and the requirement for compliant records management.

3.4.3 Change Management

This ICT Strategy recommends a number of major application based initiatives. These will be challenging to implement and require a process of incremental change to take place across the organisation in which existing business process will need to be adapted and developed in order to ensure that the investment proposed delivers real value for money for the PRTB.

3.4.4 Paper Based Processing Environment

The *Residential Tenancies Act 2004* and subsequent experiences have imposed an excessively paper based processing environment on the PRTB. It will require considerable effort at all levels within the organisation to enable and facilitate the automation of these processes. This change will also require adaptation some adaptation of working practices and the introduction of new procedures in key areas.

3.4.5 Resourcing

The successful implementation of the ICT strategy proposed in this document will require a substantial resource commitment on the part of the organisation in human (business and technical) and financial resource terms. The PRTB will need to address its resourcing capability for the programme of work set out in this strategy. It is essential that resources from business areas are available for projects to be achieved within the required time frames set out in this document.

3.5 Future Developments Impacting the Strategy

On the basis of the evolving nature of the PRTB, the following are some of the anticipated changes to the organisation which may impact on ICT over the next 3 year period:

[Deleted]

- The need to automate repetitive processes and reduce paper records
- Need to better support related third parties such as mediators through technology
- Requirement to streamline and better support the significant volume of queries received by the PRTB
- A demand for services outside normal working hours (including web based on-line services)
- Third party requests for reliable, high quality, up-to-date registration related data
- More formalisation of working practices
- Requirements for better monitoring, tracking and reporting in order to reduce business risk
- A need for easy access to accurate and up-to-date information and statistics by senior management and Board members.

3.6 Requirements

On the basis of these future developments, and in consideration of the issues arising from the current system assessment process, the following requirements have been identified as important to the PRTB and requiring consideration in this ICT strategy:

Requirement	Description
R1.	The efficiency and effectiveness of PRTB's services requires compatibility and integration between its applications, information repositories and technology infrastructure.
R2.	Vital to the operation, public image and future of the PRTB is a well designed website that supports on-line registration and disputes services, and provides current and accurate information and content.
R3.	The PRTB must move away from time consuming manual paper based processes to automated processes and work flow using electronic documents and archives.
R4.	Adequate ICT financial management structures and systems are essential for the implementation of new technologies and the maintenance of existing technologies.
R5.	Excellence in service requires appropriate access by all user communities to the information and support they require.
R6.	PRTB administrative and service provision operations require a current, reliable and secure computing and network environment.
R7.	The PRTB must govern, co-ordinate and effectively manage its provision of information systems and the underlying information and communication technology.
R8.	Training of staff is essential to take advantage of technology investments, maintain security and minimise business risks.
R9.	All procurement and use of ICT should be beneficial and cost-effective.

R10.	Technology should support the efficient and secure management and tracking of cases and enforcement activities.
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3.7 Policies and Standards

The PRTB does not currently utilise any documented policies or standards in regards to information and related technologies that affect this strategy.

3.8 Assumptions

The following assumptions have been made about the PRTB and its use of ICT over the next three years (2008 – 2011):

[Deleted]

- The PRTB will not radically change in size, nature and role
- That the ICT infrastructure recently implemented at O'Connell Bridge House is adequate
- Old equipment (servers, PC's etc) will be replaced in accordance with normal best practice principles
- The use of electronic signatures will be permissible in many circumstances
- Electronic documents will be acceptable as true copies

3.9 Other Factors Influencing this ICT Strategy

Elements of the ICT strategy have been influenced by:

- National objectives (e.g. in relation to e-Government and use of the Irish language)
- The experience of other organisations (via the benchmarking exercise and Mazars' knowledge base)
- Current contractual arrangements **[Deleted]**
- Legal requirements (e.g. Data Protection Acts)
- Security considerations
- Issues of efficiency
- PRTB considerations

- The need to improve quality of services
- Financial considerations
- Technical constraints - what is possible and likely to be affordable
- Providing value for money.

It is important to note that the implementation of an ICT strategy is a three year project and it is important that whilst the process of implementation is flexible enough so as to be adaptable in the event of a material or significant change to the business of the Board, the process of implementation and the priorities set out in this document are protected from unwarranted external influences or change due to short term pressures or additional once off projects.

4 ICT VISION AND STRATEGIC TRACKS

The ICT vision, for the PRTB may be expressed as follows:

Information and Communication Technology will be dedicated to supporting the objectives of the Board; improving the quality of the services that it provides; supporting staff and maintaining a high level of satisfaction in the delivery of these services.

In order to achieve the ICT vision articulated in this document, a significant body of work must be undertaken over the next few years within the PRTB. Rather than enumerate each individual task in this document, we have organised them PRTB bundles of tasks/ requirements and we refer to them as Strategic Tracks. These Strategic Tracks are based on the identified business goals and requirements as set out above and may be presented as follows:

Track	Recommendation	Objectives And Requirements Supported
T1.	Develop and implement appropriate ICT management and governance structures	R4/R5/R7
T2.	Develop and Implement ICT Related Policies and Procedures	R1/R2/R3/R4/R5/R6
T3.	Enhance Information and Document Management Capabilities	O3/O5/O6 R5/R7/R10
T4.	Develop and Implement a single integrated tenancies management solution, including case tracking	O1/ O2/ O5 R1/R2/R3/R6/R10
T5.	Improve the PRTB's Web presence and introduce a range of on-line services	O1/O2/O4/O5 R2/R3/R5/R10
T6.	Select and implement new finance system	R1/R2/R3/R4/R6
T7.	Improve communications and the provision of information (internal and external)	O2/O4/O5 R2/R5/R10

Track	Recommendation	Objectives And Requirements Supported
T8.	Develop an ICT business continuity/ disaster recovery plan	O2 R5/R6/R7
T9.	Expand ICT Education and Training Opportunities	R5/R6/R7/R8
T10.	Maximise value for money and return on ICT investment	R4/R7/R9

5 STRATEGIC TRACKS (HIGH LEVEL)

The tracks which we have identified in Section 4 of this report may be described at a high level as follows; each track is set out in detail in Section 6 of this report.

5.1 Develop and Implement Appropriate ICT Management and Governance Structures

This track involves the development of an overall governance and organisation framework within which ICT can be managed within the PRTB; this should include the formation of an ICT Steering Committee.

A key goal is to provide the PRTB with appropriate and well managed ICT delivery, maintenance and support services that enable the reliable delivery of high quality services at the lowest possible cost in terms of ICT overheads. This should be monitored by the Steering Committee against service levels, key performance indicators and project success factors.

It is envisaged that a Project or Programme Manager will be appointed to manage the projects recommended in this strategy.

The eventual size and nature of the ICT organisation should be driven by the business requirements of the PRTB. The organisational framework has to be responsive to the growing technological needs of the Board, but also to ensure good governance and risk management.

5.2 Develop and Implement ICT Related Policies and Procedures

The PRTB should formalise its ICT activities with documented policies related to information technology (security, privacy, use, copyright, etc.) issues. These should be published (e.g. on an Intranet) and be readily available to all staff. The PRTB must then implement the policies as procedures, and establish a suitable ICT control environment.

This recommendation includes developing and implementing policies and procedures to address legal and operational issues related to information and ICT.

5.3 Enhance Information and Document Management Capabilities

The PRTB should use information technology appropriately and effectively to support its goals and objectives, in particular the information it holds should be efficiently held and managed, and organised around its main customers or stakeholders i.e. tenancy registrations, properties, landlords and tenants. Under this track an information architecture will be defined and a Records Management and Retention Policy developed.

It is also recommended that a document management system (DMS) be implemented and used as a single repository for electronically storing documents – operational and internal

Internally PRTB requires the efficient provision of management information and statistical reporting – this plays an integral part in the operational planning of the organisation, as well as being required for the Annual Report. Improved reporting and analysis systems are therefore needed.

5.4 Develop and Implement a Single Integrated Tenancies Management Solution

At present, the ICT systems of the PRTB do not adequately and efficiently support its key business. The business of PRTB ultimately revolves around tenancy registrations, disputes and enforcement and its ICT systems should as well.

Compatibility and integration between information technology systems and applications must be promoted. Key to this will be the replacement of the current stand-alone RACTS, case and post systems with a single integrated tenancies management system Tenancies Management System (TMS) to support the core registration and dispute business processes, including case tracking and management. The introduction of scanning, document management and archiving functions must be integral to the new solution and the security architecture which supports it will be critical.

This is perhaps the most critical element of the strategy and the key strategic track outlined in this document.

5.5 Improve the PRTB's Web Presence and On-Line Services

The Internet has significantly enhanced the way that individuals and organisations conduct business with Government.

In accordance with government policy (e.g. the *Information Society Action Plan* and *New Connections*), the past few years has seen significant growth in the number of government services available over the Internet. The Irish eGovernment initiative focuses in particular on:

- the delivery of integrated public services to the customer
- improved internal efficiencies and back office administration
- stimulating wider engagement with ICTs in the business community and the public in general.

The government is determined to make all relevant public services available over the Internet and the challenge for PRTB is to embrace the opportunities off on-line service provision while at the same time ensuring cost-effectiveness and compliance with regulatory requirements.

This strategy introduces a specific track which addresses the issues of online services, including a revised web-site, provision of on-line registrations.

5.6 Select and Implement a New Finance System

The PRTB must replace its current simple but limited accounting systems – based on MyOB and Excel spreadsheets with a system in-line with its business requirements. The systems should be integrated with the new integrated Tenancies system for the processing of fees payments and refunds and include the following:

- Financial accounting system
- Expenses system.

5.7 Improve Communications and the Provision of Information (Internal and External)

Provide the organisation with new or enhanced communication mechanisms. These will include an extranet solution for Board members, and new Intranet services for staff.

It is recommended that PRTB develop and implement an Intranet which has the potential to be a single repository for internal information, including policies and procedures, HR information, staff information etc. It would be an effective mechanism to share and communicate information across the organisation.

This track also includes extranet solutions for Board members and Mediators and Adjudicators.

5.8 Develop a Business Continuity/Disaster Recovery Plan

The PRTB provides a suite of services which are public facing in nature, and which are required to be available on a continuous basis.

At present the PRTB is somewhat exposed in the absence of a formal and comprehensive Business Continuity and Disaster Recovery Plan for ICT.

With the implementation of this ICT strategy and as activities become more automated and reliant on technology, the need for an ICT Disaster Recovery/ Business Continuity plan will increase.

This ICT strategy provides for the development and implementation of such a plan to protect the organisation and its key stakeholders and customers.

5.9 Expand ICT Education and Training Opportunities

Technology is changing on a relatively frequent basis, none the less it is imperative that PRTB systems users, depending on their specific needs are provided with a strong base from which to

use the technology which the PRTB provides. This track will focus on the determination of ICT training needs for individual user communities and provide an ICT training programme to address the needs of the PRTB and its staff.

5.10 Maximise Value for Money and Return on ICT Investment

While a strong financial framework exists at present, the devolved and inconsistent nature of the way in which technology is procured and financed, means that the current return on IT investment is not being maximised, we propose that the PRTB establish a single and centralised financial structure to maintain existing technology and support new technology initiatives.

6 STRATEGIC TRACKS (DETAILED)

[Deleted]

7 TECHNOLOGY OPPORTUNITIES

The pace of change in ICT shows no sign of slowing. It is occurring in the technology itself, in the availability of electronic information and in terms of lower costs and broadened availability. It is possible to identify a number of technological developments which are of definite or potential interest to PRTB during the life of this strategic plan:

Digital Encryption: Transport Layer Security (TLS) and its predecessor, Secure Sockets Layer (SSL), are cryptographic protocols that provide secure communications on the Internet for such things as web browsing, e-mail, Internet faxing, instant messaging and other data transfers. This security is vital prevent eavesdropping when handling sensitive information such as credit card payments.

Electronic Filing: E-filing is a general term for the electronic submission of documents or information, e.g. a tax return, or in PRTB's instance a tenancy registration.

Electronic Signature: An e-signature is an electronic method of signing an electronic message that:

- identifies and authenticates a particular person as the source of the electronic message; and
- indicates such person's approval of the information contained in the electronic message.

It can thus replace paper based signatures in many circumstances. While e-signatures have legal validity in Ireland (see Appendix D), it is nevertheless easily possible for many electronic methods of signature, or imputed signature, to forge or spoof assent. An associated policy regarding the retention and archiving of emails is essential.

Extranet: An extranet is a private network that uses Internet protocols and network connectivity to securely share part of an organisation's information or operations with remote users, suppliers, vendors, partners, customers or other organisations. An extranet can be viewed as part of a company's Intranet that is extended to users outside the organisation company, normally over the Internet.

Fax Server: A fax server is a set of software running on a server computer which is equipped with one or more fax-capable modems (or dedicated fax boards) attached to telephone. Its function is to:

- receive fax calls and either store the incoming documents or pass them on to users
- accept documents from users via a variety of means (e.g. email or using a printer interface), convert them into faxes, and transmit them

Intranet: An intranet is a private computer network that uses Internet protocols and network connectivity to securely share part of an organization's information or operations with its employees. Sometimes the term refers only to the most visible service, the internal website – the Intranet site.

Open Source Software: the PRTB is already benefiting from the appropriate use of open source software. Products such as Linux, Apache, MySQL, PHP, Firefox and Open Office can represent a viable alternative to proprietary solutions while offering better value for money.

SMS Server: Short Message Service (SMS) is a communications protocol allowing the interchange of short text messages between mobile telephone devices. An SMS Message server can be attached to a network and applications such MS Outlook can then be used to allow SMS messages directly to mobile phones.

Storage Area Network: Disk storage arrays connected via storage area networks (SANs) have emerged as a common and flexible storage solution, they may be relevant for the document management system.

Virtualisation: Modern server hardware has become so powerful that it is often underutilised. With virtualisation, many virtual machines are simulated on a single stand-alone hardware platform, the number limited only by the host's hardware resources. Each virtual machine can run its own operating system and applications. The result can be substantial financial savings.

RSS: Is a family of Web feed formats used to publish frequently updated content such as blog entries, news headlines, and podcasts in a standardized format. An RSS document (which is called a web feed or channel) contains either a summary of content from an associated web site or the full text. RSS makes it possible for people to keep up with web sites in an automated manner using RSS readers.

Virtual private network: A VPN is a computer network in which some of the links between nodes are carried by open connections or virtual circuits in some larger network (usually the Internet) instead of by physical wires. One common application is for secure communications through the public Internet, e.g. to an extranet.

Web 2.0: An internet trend that emphasises using the Internet to provide applications as a service, and the sharing data and information. This involves the building of applications around the unique features of the Internet "Cloud", as opposed to building applications and expecting the Internet to suit as a platform, and the transition from isolated information silos to interlinked computing platforms that function like locally-available software in the perception of the user.

XML: A general-purpose specification for creating custom markup languages. Its primary purpose is to facilitate the sharing of structured data across different information systems, particularly via the Internet.

8 USE OF OUTSOURCING

An assumption is made that current ICT support and maintenance arrangements (e.g. with Calyx) will continue for the duration of this strategy. However in relation to new ICT projects, and their associated systems and infrastructure, the PRTB should review on a case by case basis the benefits (financial and otherwise) of out-sourcing. For example it may be advantageous to outsource server hosting and disaster recovery services.

Comparison Of In-House Vs. Outsourced ICT Support Options		
Option	Possible Advantages	Possible Disadvantages
<i>In-house</i>	<ul style="list-style-type: none"> • Staff familiar with ICT environment • Flexible and convenient • Direct control of quality and service • Avoids risk associated with the use of third parties • Not tied in to contracts and Service Level Agreements (SLA's) 	<ul style="list-style-type: none"> • Need to retain key technical staff whose loss can disrupt business. • Higher costs • ICT staff may not always have required specialist skills • Need to maintain competency.
<i>Outsourcing</i>	<ul style="list-style-type: none"> • Potential saving • IT related costs clearly identified • Enables clarity in budgeting and planning • Often excellent help desk service and resolving standard problems • Access to various technical specialists, skills and tools • Reporting and performance tracking often better than in-house • Enforceable service level (e.g. penalties) • 24x7 support at a fraction of the in-house cost • Can build-in flexibility to deal with unexpected business growth or down turns. 	<ul style="list-style-type: none"> • Risks associated with use of third party to support critical business functions • Vendor staff may be unfamiliar with PRTB's systems • Require a comprehensive SLA which accurately reflect the needs of the organisation – but easy to get an initial contract wrong • Vendor may not deliver on all commitments and promises • Unexpected hidden or excessive extra costs can often be incurred. • "Shadow costs" if local non-ICT personnel start performing unofficial support duties • Can become "locked" in to a supplier contract.

9 TARGET ENVIRONMENT (2011)

Information systems, and the supporting information technology infrastructure, have become a key requirement for the PRTB to function, with more and more business critical tasks becoming dependant upon ICT. The objective set out in this plan is to move PRTB from a relatively piecemeal and unstructured approach to ICT, to an integrated, protected, managed, and centralised target environment that implements appropriate ICT policies and economically delivers the information services that customers, stakeholders and PRTB staff require.

Conformance to the recommendations implies that the application environment must become standardised, proceduralised and documented. Where ever possible, existing applications should be used and developed in order to make the best and most cost effective use of investment and skills. However in some instances new or replacement systems will be required to meet objectives and deliver the required capabilities.

9.1 Functional Areas

For the implementation of this ICT strategy, each of the organisations' functional areas can be described as follows

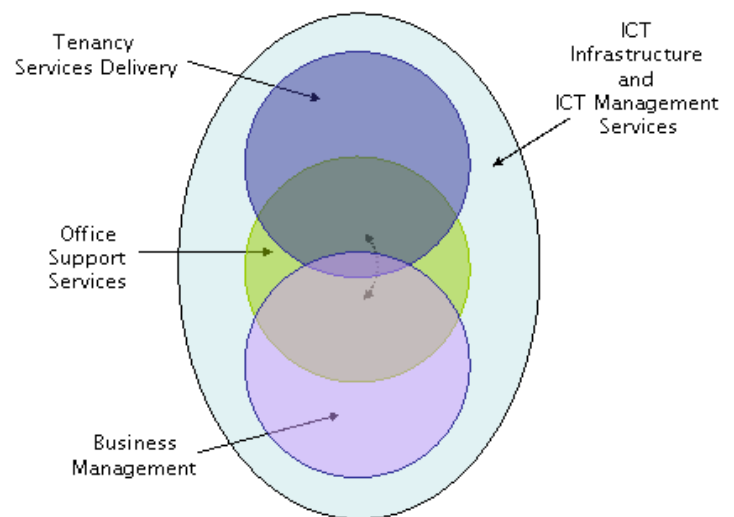
Functional Area	ICT Provision – Examples
<p>Tenancy Services Delivery</p> <p>Operational information systems directly used to support the delivery of services to external “customers” – primarily agents, landlords and tenants.</p>	<ul style="list-style-type: none"> • Registration system for all private residential tenancies (including enforcement) • Dispute resolution service (including case management) • Query management and provision of information • Content management system for website and web portal • Contact Management / Customer Relations Management • Mediation and Tribunal Booking • Tribunals Booking • Document management • Workflow
<p>Business Management</p>	<ul style="list-style-type: none"> • Payroll • Financial Accounting • Time and Attendance

Functional Area	ICT Provision – Examples
<p>Information systems used internally to run and administer the PRTB.</p>	<ul style="list-style-type: none"> • Travel and Subsistence / Expenses • Inventory / Stock Control • HR / Employee Records • Management Reporting
<p>Office Support Services</p> <p>Information systems that facilitate or support day-to-day activities, including exchanges with “customers” and external employees. Typically these are organisation-wide information systems used to provide or enhance quality, communications, productivity and efficiency.</p>	<ul style="list-style-type: none"> • Word Processing • Spreadsheets • Presentation tool • Webpage content development • Email • Project Management • Collaboration • Messaging • Intranet • Extranet • Internet access
<p>ICT Management Services</p> <p>Background systems that enable the ICT to achieve its mission, including those that reduce risk.</p>	<ul style="list-style-type: none"> • Backup and Recovery • Anti-Virus • Content management • Anti-Spam filter • Security Services • Asset Management • Change Management • Configuration Management • Network Monitoring • Security controls • Help Desk and Support • Telephone Management
<p>ICT Infrastructure</p> <p>The underlying hardware and software technology products, components and elements used to deliver information systems and services.</p>	<ul style="list-style-type: none"> • Servers • PC’s and Laptops • Operating Systems • Databases • Web server • Fax gateway • PDA’s • Network cabling • Internet links and firewalls • Telecommunications • Video conferencing • Remote access gateways

9.2 General Architecture

It is expected each functional area within the PRTB will adopt a standard and well integrated set of products:

- For the delivery of tenancy services, the focus will be on the development of a new registration system that supports interactive web enabled services, providing PRTB with seamless access to data, information, and knowledge.
- The PRTB has already purchased a significant amount of Microsoft software and it is envisaged that office support services will continue to primarily use Microsoft solutions.
- The business management function will select and implement a new financial system to replace MyOB; this will drive and influence the selection of supporting systems (including time sheets, budgeting and resource management).
- The current ICT infrastructure will be maintained and upgraded as required.



A high level architecture is shown in the diagram right.

In addition, the delivery of services (internally and to the client) will be greatly improved in efficiency, effectiveness and capability by the introduction of “internet” type technologies.

9.3 Applications

Each application or system expected to be used by PRTB in 2011 is allocated to one of the following categories:

- **New (N):** A total new information system or ICT capability.
- **Replace (R):** Acquire new software or completely redesign the existing system to get improved technology or functionality.
- **Enhance (E):** Upgrade hardware/software, add new business functionality, improve system stability or interface with other systems.
- **Maintain (M):** Retain existing system as is, but may improve operational management, documentation or staff training.

[Deleted]

9.4 Detailed Logical Architecture

The diagram below shows the logical architecture of PRTB applications, depicting both existing and proposed solutions. A distinction is made between TMS and the other Business Management and service delivery solutions.

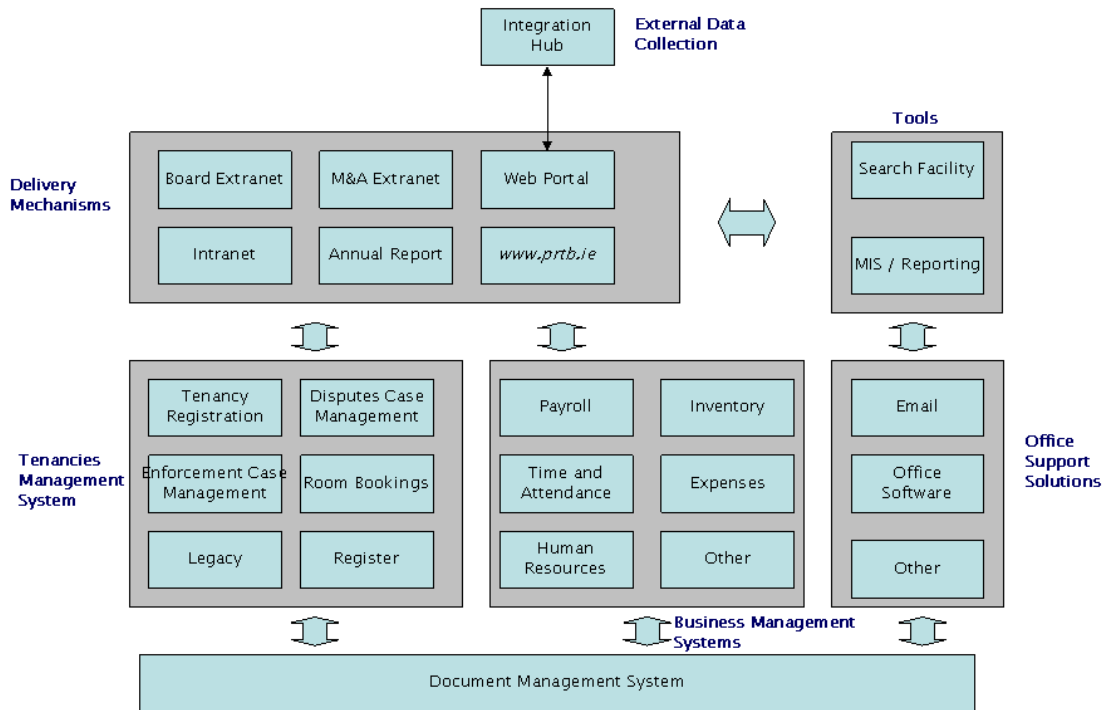


Figure 4: Future Logical Architecture

9.5 System Availability

As PRTBs dependence upon its information systems increases, the reliability and availability of these systems must also improve appropriately.

Accurate metrics are not available but we understand that RACTS is currently very reliable. Any replacement system – in particular TMS – must have a high level of Reliability, Availability and Serviceability. The proposed levels of availability for the purpose of this plan are:

[Deleted]

10 OUTLINE IMPLEMENTATION PLAN

10.1 High-Level Work Programme

Priorities and estimated budgets for the recommendations set out in this document are established for implementation during the next three years. All of the recommendations included in this strategic plan are important, however because of limitations of financial and personnel resources not all of them can be implemented immediately.

The following schedule sets out a suggested high level implementation timeline over the period 2008 – 2011:

Track	Description	2008	2009				2010				2011			
		Q3/4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	ICT Management and Governance													
1.1	ICT Steering Committee													
1.2	ICT organisation structure													
1.3	Appoint Project Manager		In place											
1.4	Project management methodology													
2	ICT Related Policies and Procedures													
2.1	Develop ICT policies			Review and update										
3	Information and Document Management													
3.1	Develop Information architecture													
3.2	Information dissemination policy													
3.3	Records management and retention policy													
3.4	Document management system													
3.5	Management information reporting						Ongoing							
3.6	Key performance indicators					Ongoing								
4	Tenancies Management System													
4.1	Review and redesign PRTB processes													
4.2	Requirements analysis													
4.3	Procurement													
4.4	Design and build TMS													
4.5	Pilot													
4.6	Phased system implementation							Ongoing						
5	Web Presence and On-Line Services													
5.1	Redevelop website					Ongoing								
5.2	Add on-line services						Ongoing							
6	New Finance System													
6.1	Procure and implement													
6.2	Integrate with TMS													
7	Communications and Information													
7.1	Develop PRTB Intranet					Ongoing								
7.2	Develop Board Members Extranet						Ongoing							
7.3	Develop M&A Extranet						Ongoing							
7.3	Other Communication Initiatives					Ongoing								
8	Disaster Recovery													
8.1	Develop and implement BCP/DRP													
8.2	Test and maintain													
9	ICT Education and Training													
9.1	Develop skills and training plan					Update				u/d				u/d
9.2	Conduct training				Ongoing									
10	Value for Money													
10.1	Control and Manage ICT Investments		Ongoing											
10.2	Planning and Budgeting		Ongoing											

In addition to the recommended projects that will require allocation of resources and funding, there will be many smaller items will involve planning and establishing policies.

10.2 Project Management

A formal project management methodology such as Prince2 should be used by PRTB to assure the organisation, management and control of the recommended projects. We suggest that a member of the ICT Steering Committee and the PRTB ICT Manager should undertake formal project management training.

10.3 Implementation Activities

An annual Action Plan for 2008/9 is included under separate cover.

11 MONITORING AND REVIEW

Monitoring and review of a function that is as critical and indeed costly to operate as ICT, is imperative, and this is one of the main issues that was identified in the Current State Assessment – the lack of adequate management oversight of the ICT function.

In this context, we suggest that the progress on implementing this IT Strategic Plan must be monitored and regularly reviewed by PRTB's senior management and the ICT Steering Committee on a regular basis against a series of pre determined Key Performance Indicators (KPI'S)

Suggested Key Performance Indicators (KPI's) include:

- Strategy implementation progress against schedule
- Percentage of successful projects achieved on time and on budget
- Service level achievement by third parties
- Availability of ICT systems (nominate the key systems and the tolerated level of downtime)
- ICT Spend – Actual vs Budget
- Project Spend – Actual vs budget
- Internal user satisfaction with the ICT function
- External users satisfaction with on-line services
- ICT costs per full time equivalent employee
- ICT support costs per registration held
- ICT support costs per workstation
- Number of training hours received per staff member
- Number of security breaches per annum

In addition to the KPI's set out above, we propose that a series of KPI's should be established for both the ICT Manager and for the ICT Steering Committee.

Individual projects should also be tracked against their own Key Performance Indicators and success factors.

12 INDICATIVE PROGRAMME BUDGET

On the basis of the implementation of the 10 nominated Strategic Tracks over the period 2008 – 2011, we suggest the following ICT Special Projects Budget for that period:

[Deleted]

APPENDIX A – SUPPORTING PRINCIPLES

1. Guiding Principles

IS Access Principle

Access to PRTB's information systems and data will be controlled by a policy that makes information available only on a need to know/use basis, particularly for information that is sensitive for reasons of security, commercial sensitivity or personal privacy.

Consistency Principle

PRTB shall seek to impose consistency within its information systems at all levels through the use of policies, standards, classification schemes and information definitions. Wherever possible, these schemes and definitions should conform to accepted de jure international or de facto industry standards.

Life Cycle Management

The acquisition, development, use and disposal of PRTB's information systems should be based on an interlocking set of guidelines, procedures and formal techniques covering all phases.

2. Investments and Projects

Projects

Management should review Information Technology projects in relation to PRTB's goals and objectives to ensure that the following needs are met:

- The objectives of the project conform to PRTB's overall vision and strategic direction.
- The project contributes to at least one current, identifiable goal or objective defined in the current Business Plan.
- The projects objectives fits in with the recommendations of this IT Strategic Plan and the operational plans of PRTB.
- The Project conforms to the principles outlined in this section.

Projects – Approval

All ICT projects of [Deleted] or more should have a supporting business case and be formally approved by the Board.

Projects – Viable Business Case

If anticipated benefits do not outweigh costs, or if the risks of commercial or investment failure are excessive, unnecessary or unmanageable, then a proposed project cannot be justified. Total cost of ownership must be considered, including personnel costs, opportunity costs, ongoing support, maintenance and consumable charges.

Contractual Arrangements with Suppliers

PRTB should always seek to maintain competitive business arrangements and best value for money. It should regularly review the performance of suppliers.

System Management Principle

All new systems should be fully manageable from an access control and security perspective. The organisation needs to be able to apply and manage different levels of permissions to staff, and needs to be able to audit and log all accesses and activity that its own criteria deem important.

Renewal and upgrades of existing systems

Any recommendation to replace or upgrading of hardware and software should take in to account the following factors: age; current reliability vs requirements; supportability; future importance to the business; capital cost of replacement; and savings from replacement (e.g. warranty). As rule of thumb hardware should be replaced after 3 (e.g. heavily used laptops and printers) to 5 (e.g. servers and telephone systems) years, and software at least a year before becoming unsupported by the supplier if there is no other driver for replacement. An exception is network cabling which should last 7–10 years. Depreciation should be straight lined on this basis.

Alternatives to renewal and upgrades of existing systems

Before recommending or incurring any significant expenditure on renewal and upgrades, the ICT Manager should consider alternative ways of providing the service, or whether the service still needs to be provided, taking in to account advances in technology, and in discussion with current users and stakeholders.

3. Information Principles

Information Collection Principle

Compliance with the Data Protection Act 1998 is a legal requirement. All collection, processing, keeping, use and disclosure of personal data will be strictly in conformance with the DPA. PRTB will acquire and store only that information that has value to the business and the functioning of the organisation. This value may be calculated by reference to the information's subject matter and content, its relevance and the feasibility and cost effectiveness of its capture and storage.

IS Inter-Connectivity

Ease of information exchange between information systems must be assured. New systems should be purchased against strict criteria that ensure interconnectivity, data interchange with existing systems, and full compatibility with existing infrastructure.

One Logical Database

All core organisation information, together with all information that has an intrinsic likelihood of being shared within the organisation should be managed as one logical database regardless of the physical means or location of its collection, storage or retrieval.

Data Integrity Assurance

As many data integrity functions as are economically viable and justifiable should be implemented. These must be supported by an appropriate back up and recovery policy.

4. Technology Principles

Proven Results

PRTB should as far as possible acquire only proven hardware and software products with a successful installed base, and a high level of support available locally.

Industry Standards

Official or industry standards for hardware, networks, operating systems, database access, and hardware-independent software, should be followed as far as possible, to ensure PRTB's investment in information systems is protected in the future.

Network

PRTB's networks (local and wide area) should be fault tolerant where system availability is critical, and should be managed as one logical network from a central location. It should enable users to access any information system required from a single work station anywhere in the network.

Operability and Flexibility

PRTB's information systems should be flexible and responsive to changes and developments in the business. They should be easily divisible, refineable and adaptable. All new hardware acquired by PRTB should have a clear upgrade path, with mandatory on-going support from the original vendor at a minimum.

Connectivity and Integration Standards

PRTB should adopt standards for equipment interconnection, application interfaces and inter-operability that are appropriate to its activities. Non-proprietary data exchange formats such as SQL and XML should be used to store and receive information from databases when available.

Common Suite of Applications

The organisation should use throughout the organisation a standard set of design, graphic, office productivity, management and monitoring tools.

Standard User Interface

Where possible a standardised user desktop will be used, supported by roaming profiles where appropriate.

Availability

PRTB's information systems should provide for levels of availability and fault tolerance that are appropriate to the business functions supported. Systems should as far as possible allow for users to continue independent operation in the event of failure of part of the system because a significant proportion of daily activity is dependent on their continuous availability.

Backup

All systems should be supported by backup procedures in keeping with the value of the data stored and functions supported by them. All strategic and business critical information systems should also be protected by disaster recovery plans.

Disaster Recovery

PRTB should have a comprehensive policy dealing with "Acts of God" and "disasters". This policy should be implemented by PRTB through a regularly tested plan to enable recovery and the continuation of "business as usual" in the event of a partial or complete failure of its strategic information systems.

5. Management Principles

Roles and Responsibilities

Individual roles and responsibilities should be reviewed annually so that changes within the organisation, the architectural industry and within ICT can be catered for.

Recruitment and Retention

PRTB should seek to recruit and retain skilled information systems personnel, with architectural sector business knowledge and technical expertise, to assist user management with consultation, education, and systems support services.

Development and Training

PRTB should encourage the development and training of its information systems personnel and make appropriate provision for the transfer of skills and knowledge from suppliers.

APPENDIX B – USE OF E-SIGNATURES BY PRTB

The Residential Tenancies Act, 2005 refer to signatures in the contexts such as “signed by the landlord” and “signed by the tenant or each of the tenants”.

In Ireland the *Electronic Commerce Act, 2000* provides for the “legal recognition of contracts, electronic writing, electronic signatures and original information in electronic form in relation to commercial and non-commercial transactions and dealings and other matters, the admissibility of evidence in relation to such matters, the accreditation, supervision and liability of certification service providers and the registration of domain names, and provide for related matters.”

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APPENDIX C – BENCHMARKING

In July 2008 Mazars benchmarked the first draft of the ICT Strategy against the experiences of five other organisations with characteristics or experiences of relevance to the PRTB.

Some relevant points are note below:

[Deleted]