



Auckland City Council

Information Technology Asset Management Plan

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Information Technology Asset Management Plan

2009-2019

Prepared by: Auckland City Council

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Acronyms Used

ACC	Auckland City Council
AM	Asset Management
AMIS	Asset Management Information System
AMP	Asset Management Plan
AMS	Asset Management System
ARC	Auckland Regional Council
AMST	Asset Management Steering Team
CAPEX	Capital Expenditure
CBD	Central Business District
CDEM	Civil Defence Emergency Management
IFRS	International Financial Reporting Standard
IIMM	International Infrastructure Management Manual (by NAMS)
GIS	Geographical Information System
LTCCP	Long Term Council Community Plan
KPI	Key Performance Indicator
LGA	Local Government Act 2002
LOS	Level of Service
NAMS	National Asset Management Steering Group
O&M	Operations & Maintenance
QBL	Quadruple Bottom Line
RMA	Resource Management Act 1991
SAP	Council mainframe financial system
WIP	Works in Progress

Executive Summary

Introduction

This Asset Management Plan has been developed by the Information Technology and Communications (ITC) group to document the management of Information Technology (IT) assets.

The purpose of the plan is to describe IT assets at the Auckland City Council (Council) and to

- demonstrate responsible management and to meet statutory requirements
- demonstrate appropriate service levels on a sustainable basis
- meet growth requirements and address risks
- communicate and justify funding requirements

The assets identified in this plan belong to the IT Infrastructure. The asset groups that comprise the IT Infrastructure are defined in the following table

Asset Groups	Sub group
IT Core Infrastructure	Network/Telephony
	Servers
	Storage
	Operations and Management
	Office Automation
Desktop Replacement	Desktop rolling 5-year replacement
IT Core Applications	SAP
	Pathway
	Filenet
	Spatial
	WWW
	Citynet

Table ES1 – IT Asset Groups

The Service We Provide

IT is delivered to the Council as a shared service. This service is the responsibility of the ITC business group.

ITC contributes most importantly towards the Council strategy to be an 'Efficient and Capable Council'.

The key benefits to customers and citizens of information technology assets can be direct or indirect. Direct benefit is achieved by having systems that allow customers direct access to council services in simple and effective ways e.g. transactions over the internet like being able to order books from the library, get a Land Information Memorandum (LIM), or pay a parking ticket. Indirectly the benefit comes from the organisation having systems that staff use to make service to customers more efficient and effective.

The ITC Levels of Service statements that define the current levels of service are described in this plan, and they include

- To provide robust, reliable and secure systems
- To maximise the organisations benefit from its IT investment by ensuring that users are trained effectively, maximum use is made of the functionality available, problems are resolved quickly and the systems continue to evolve to meet the needs of the organisation
- To assist business groups to achieve their outcomes through the integration and support of their line of business technology systems
- To assist the business to make informed decisions through the provisions of IT expertise, research and knowledge
- Organisational productivity gains and business process improvements throughout the organisation are promoted
- Thought leadership in the role of IT in enabling service and efficiency improvements are provided

Executive summary

The IT Infrastructure is a set of common hardware and software assets (systems) that is provided to the Council. Business groups that have systems unique to their business – defined as ‘Line of Business’ systems – can operate these systems using the network and other services of the IT Infrastructure.

ITC provide services to procure and manage all IT assets on behalf of the organisation and shares the responsibility for the implementation of strategic initiatives that provide new business functionality. The responsibilities for Line of Business systems are negotiated between ITC and business groups. The controls and financial management of the assets in the IT Infrastructure are the responsibility of ITC, along with non-asset solutions that are components of the IT Infrastructure.

A summary of IT services and service levels is contained in the following table

IT Service	IT Service Levels
IT Infrastructure	ITC provides the IT Infrastructure to agreed service levels
Procurement	ITC procures and deploys IT goods and services for the IT Infrastructure and Line of Business systems as per agreed procurement KPIs
Projects (that use IT)	Services provided for IT projects are as follows; <ul style="list-style-type: none"> Projects to develop the IT Infrastructure for Levels of Service and/or Growth and Demand reasons will be provided by ITC, as required ITC and business groups will agree joint service levels for projects that use or are part of the IT Infrastructure - as part of the project initiation Projects for Line of Business systems that do not use the IT Infrastructure may negotiate ITC involvement
Application development	ITC will build, test and implement applications as per the Project agreements described above
Application lifecycle management	ITC will provide version upgrades and maintenance fixes to meet the requirements of the applications running in the IT Infrastructure
Business/IT consulting	ITC will negotiate and agree the IT consulting service levels with the business groups
Facilities Operations	ITC will operate and maintain the IT Infrastructure using detailed KPIs – including Infrastructure plans, Service Level Agreements (SLAs) with service providers and Strategic Partnership Agreements (SPAs) with business groups.
Support	The ITC Support Centre provides comprehensive 1st level support of the IT Infrastructure, including ‘Onsite Support’ to business groups The Cornerstone support offices provide 2nd level support for the cornerstone applications The Millennium System Support Team provides 2nd level support for the Millennium application
Regional Services	ITC provides the current IT regional service – eLGAR Hosting
IT training	ITC will provide IT training in support of projects, application lifecycles and the use of the IT Infrastructure.

Table ES2 – IT Service Summary

ITC hold the operational (opex) and capital (capex) expenditure budgets to provide the routine maintenance, service level improvements and capital renewal required to ensure the IT Infrastructure asset is maintained and improved to meet the needs of the customers and stakeholders.

Service level improvement of the IT Infrastructure is defined as improvements in performance and capacity, version upgrades, the expansion and leverage of existing systems and the lifecycle replacement/step change of systems and hardware. The replacement of Desktops (PCs) on a rolling 5-year replacement strategy is defined as part of the capital renewal budget.

The Service Level Improvement Capital New Works Plan describes the expenditure required to deliver service level improvements for the IT Infrastructure asset and identifies a number of ‘step changes’ in the IT Infrastructure that will require additional expenditure. They are

- an additional spend of \$900,000 planned for FY10 for the AMIS upgrade
- a spend of \$2.5m on a Desktop upgrade, split between FY13 and FY14
- a multi-million dollar investment in a Pathway replacement, planned for FY12

Managing the Asset Lifecycle

The IT Infrastructure asset contains three asset groups – IT Core Infrastructure, Desktops and IT Core Applications.

The IT Infrastructure asset changes at a detail level frequently. The number of assets in each asset group is influenced by service level demand, e.g. the numbers of PCs available is dependant on the number of staff, and technology changes e.g. the shift of technology from 'stand-alone' servers to 'blade-server' technology influences greatly the number of assets required to provide the IT Infrastructure asset. The numbers identified in this plan must be taken as 'at a point in time' and will change.

ITC has developed a Disaster Recovery Plan, within which, for the purposes of restoration of services, critical systems in the IT Infrastructure asset have been identified.

Performance of the IT Infrastructure asset is measured using the 'availability' key performance indicator.

The IT Infrastructure asset condition is maintained in a 'fit for purpose' condition. The strategy used to maintain this condition is

- The IT Infrastructure assets are under warranty from the supplier, where the conditions of that warranty – replacement, fix in place etc – are appropriate for the nature of the asset
- 'Standby' assets are maintained, as appropriate
- The core network links have alternate routing in case of failure
- ITC follows an industry-standard back-up and recovery strategy for its applications and data
- A Business Continuity Plan is in place for the IT Infrastructure asset to ensure that single failure of an asset, multiple failures of assets and 'restricted access to the IT Infrastructure' does not unnecessarily constrain the business of the Council

This plan contains the General Operations plan, the Revenue plan, the Maintenance plan, the Disposal plan and the Capital Renewal plan for the IT Infrastructure asset.

Sustainability Summary

The Council has set out its sustainability objectives in a document called Taking Care of Auckland's Future.

The IT industry produces 2% of global CO2 emissions. This is equivalent to the airline industry.

ITC continues to research the impact of IT on sustainability and currently has a number of initiatives underway to address sustainability, including

- A 'Green IT' initiative as part of its current business plan
- The use of a business partner to dispose of assets for re-use or destruction in an environmentally friendly manner
- Continuing research into sustainability, similar to that reflected in the Gartner research referred to in this plan
- Including sustainability in vendor supply reviews - an example of which is the recent review of printing equipment for the Council
- The continued implementation of new technologies to increase device utilisation and to reduce power usage

Financial Summary

For the completeness of the overview of the organisation’s asset requirements, the OD Portfolio has been highlighted within the ITC asset management plan. Projects under this portfolio will generate savings and efficiencies across the organisation thereby contributing to building a more efficient and capable council.

The identified solutions often have an impact on IT functions with the possibility of ongoing maintenance and resource requirement. The consequential opex for IT systems (hardware and software maintenance) is 18% to 20% of the capital cost and expanding ‘Cornerstone’ systems has an impact on IT support staff numbers going forward.

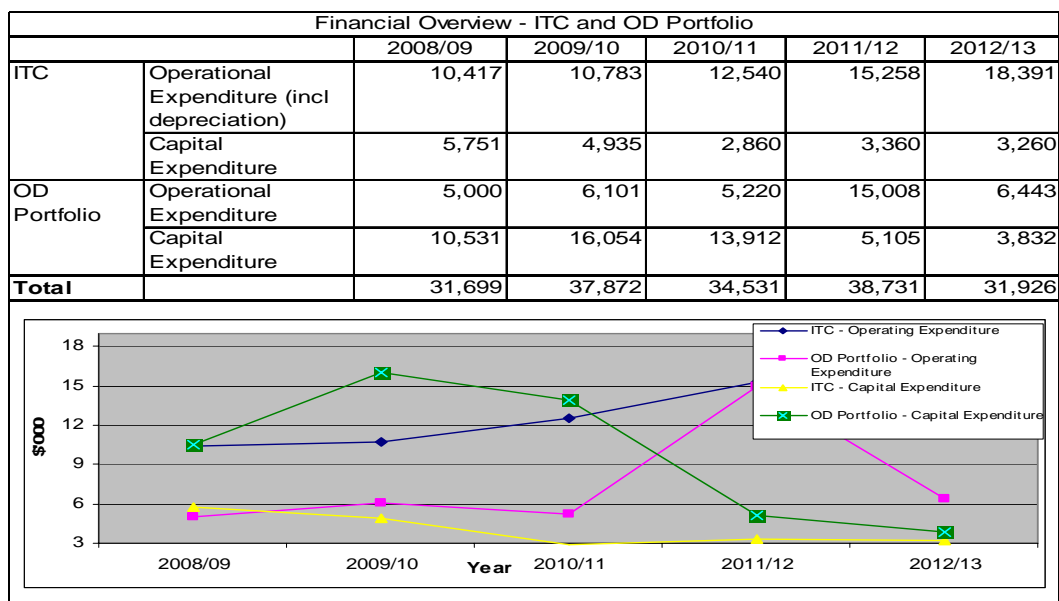
However, for the purposes of this asset management plan, the consequential operating costs arising from the OD Portfolio have not been forecast as:

- The aim to improve systems and processes via projects under this portfolio requires various IT elements and input such as staff expertise. However, the solutions do not always eventuate in the installation of a new system or a product that requires ongoing maintenance in addition to the already existing maintenance plan in IT.
- The nature of the OD Portfolio is to improve the processes and systems council wide, thereby contributing to building a more efficient and capable council. Projects under this portfolio will generate savings and efficiencies across the organisation thereby compensating any risk of consequential operating expenditure. Where the implementation of technical systems is concerned, it is likely that additional IT support staff will be required and these will be recognised in the business case.

The OD Portfolio projects are subject to the normal business case approval process.

For ITC the major forecasted capital expenditure relates to upgrades of AMIS (Asset Management Information System) of \$0.9 million in 2009/10, Pathway upgrade of \$10 million in 2011/12 and desktop upgrade of \$2.5 million in 2012/13 and 2013/14. An option exists where cost increases exceed the Consumer Price Index, as forecast in 2011/2012 for the upgrade to Pathway, that the Council continues with unsupported versions – and consequential risk - of the Pathway system.

For the OD Portfolio, the major capital expenditure relates to the Customer First programme estimated to cost \$26.3 million over four years. The financial forecast for ITC and OD Portfolio capital and operational expenditure is outlined in the table below.



Risk Summary

The Council recognises that IT is central to its operation and the services it provides to its customers. For this reason, ITC is risk adverse, and employs a number of industry best practices to monitor and maintain the performance and condition of the IT Infrastructure asset.

A financial risk exists that a compelling business case for the deployment of the next version of the Windows operating system, significantly before the planned deployment in FY13, would incur an earlier than expected renewal charge.

Asset Management Practices

ITC is responsible for the management of assets in the IT Infrastructure.

The primary activities that ITC undertake to manage the IT Infrastructure asset are asset maintenance, asset renewal and service level improvement. The capital works programme is planned annually as part of the long-term council community plan and the annual planning process.

IT Infrastructure assets are stored in the asset accounting module of SAP, which links to the detailed information contained in equipment records in the Plant Maintenance module of SAP.

The July 2007 Risk and Assurance audit of the ITC asset register made recommendations for enhancement of the management of IT Infrastructure assets and the actions that result from these recommendations are under development.

ITC has defined clear roles and responsibilities for the management of assets in the IT Infrastructure

Striving for Excellence

ITC has identified a number of actions required to form the improvement plan chapter of this plan, including the implementation of the recommendations of the 2007 Risk and Assurance internal audit report of IT assets.

These actions form the improvement plan, which is included in chapter nine of this plan.

1 Introduction

1.1 Background

This Asset Management Plan has been developed by the ITC group to describe the management of IT assets.

The purpose of the plan is to describe IT assets at the Council and to

- demonstrate responsible management and to meet statutory requirements
- demonstrate appropriate service levels on a sustainable basis
- meet growth requirements and address risks
- communicate and justify funding requirements

IT is delivered to the Council as a shared service. This service is the responsibility of the ITC business group. The assets described in this plan belong to the IT Infrastructure. The asset groups that comprise the IT Infrastructure are defined in the following table:

Asset Groups	Sub group
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	Servers
	Storage
	Operations and Management
	Office Automation
Desktop Replacement	Desktop rolling 5-year replacement
IT Core Applications	SAP
	Pathway
	FileNET
	Spatial
	WWW
	Citynet

Table 1.1.1 – IT Asset Groups

Subject to the variable nature of the numbers of assets in the IT Infrastructure, the following table contains the numbers of assets in the IT Infrastructure as at March 2008

Asset Group	Asset Sub group	Description	Quantity	Age
IT Core Infrastructure	Network/telephony	PABX	10	Under warranty
		Desk Phones	2500	Under warranty
		Switch/Router	300	Majority under warranty, spares held where that is not the case
		Cabling	See notes in chapter 4	
	Server	Server	167	135 under warranty
	Storage	Storage	46	Under warranty
		Backup hardware	7	Under warranty
Office Automation	OA software	As required for organisation	Current	
Desktop	Desktop replacement	PC	2815	5 years or less
		Laptop	259	2004-2008
		Printers	297	See notes in chapter 4
IT Core Applications	Cornerstone applications	SAP, Pathway, Spatial, FileNET, WWW and Citynet licences	As required by organisation	Current

Table 1.1.2 – IT Asset numbers by Asset Group

This plan does not include IT assets owned by business groups. IT assets managed by business groups are defined as ‘Line of Business’ systems. IT assets managed by business groups are described in the asset management plan prepared for each business group.

1.2 The City Vision, Mission and Strategic Goals

The assets in the IT Infrastructure provide the core IT capability for the organisation, including user access devices, processing, data storage, networks and business applications.

The link to the Council strategic goals is via the organisation’s business plans. The ITC business plan is linked to the Strategic Framework for the organisation. The ITC business plan is described further in chapter two of this plan.

1.3 Plan Framework

The key elements in this plan are

- A description of the IT shared services model
- A description of IT services and assets in the IT Infrastructure
- IT expenditure in the organisation
- A service level improvement capital new works plan
- Growth and demand factors and a demand management plan
- The portfolio of IT assets, along with performance and condition assessments
- Operational and capital renewal plans
- A summary of IT sustainability impacts and actions
- A financial summary
- A risk assessment
- A description of asset management practices for the IT Infrastructure
- An improvement plan

A diagram of the asset management planning process framework is included below.

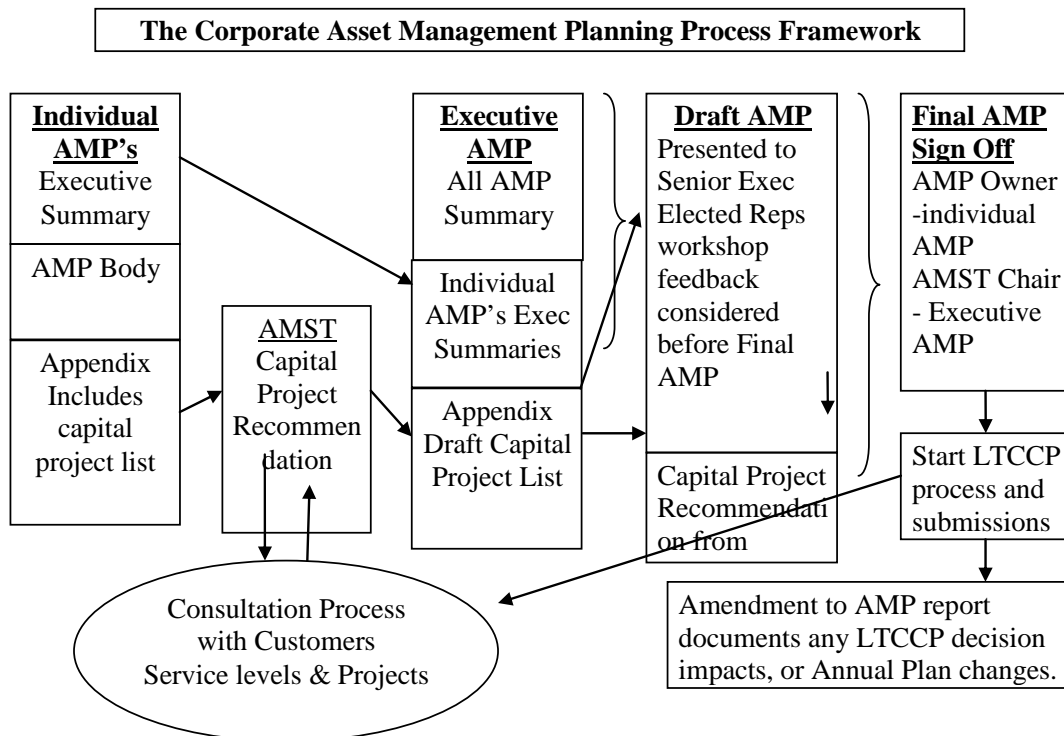


Figure 1.3.1: Asset Management Planning Process Framework

1.4 Adverse Effects of Activities

IT assets generally provide positive effects for the organisation.

However, the IT industry produces 2% of global CO2 emissions (Gartner), from the use of PCs, servers, cooling, data centre uninterrupted power systems, fixed and mobile telephony, networks, printers and disk storage. This is equivalent to the airline industry.

ITC continues to research the sustainability impacts of IT and increasingly includes sustainability criteria into its business plans. This is described in chapter 5 of this plan.

2 The Service We Provide

IT is delivered to the Council as a shared service. This service is the responsibility of the ITC business group.

ITC contributes most importantly towards the strategy of the Council to be an 'Efficient and Capable Council'.

The ITC Levels of Service statements that define the current levels of service are described in this chapter

ITC provide services to procure and manage all IT assets on behalf of the organisation and shares the responsibility for the implementation of strategic initiatives that provide new business functionality. The responsibilities for Line of Business systems are negotiated between ITC and business groups. The controls and financial management of the assets in the IT Infrastructure are the responsibility of ITC, along with non-asset solutions that are components of the IT Infrastructure.

The IT Infrastructure is a set of common hardware and software assets (systems) that is provided to the entire organisation. Business groups that have systems unique to their business – defined as 'Line of Business' systems – can operate these systems using the network and other services of the IT Infrastructure.

ITC hold the operational (opex) and capital (capex) expenditure budgets to provide the routine maintenance, service level improvements and capital renewal required to ensure the IT Infrastructure asset is maintained and improved to meet the needs of the customers and stakeholders.

Service level improvement of the IT Infrastructure is defined as improvements in performance and capacity, version upgrades, the expansion and leverage of existing systems and the lifecycle replacement/step change of systems and hardware. The replacement of Desktops (PCs) on a rolling 5-year replacement strategy is defined as part of the capital renewal budget.

The Service Level Improvement Capital New Works Plan sets out the expenditure required to deliver service level improvements for the IT Infrastructure asset and identifies a number of 'step changes' in the IT Infrastructure that will require additional expenditure.

One significant financial risk is identified when planning the IT Infrastructure asset for the period of this plan.

2.1 Customer and Stakeholders

The customers who use IT assets are:

Ratepayers and the General Public	Using e-services, self-help services and access to ACC services through business group contact centres
Elected representatives	Mayor and Councillors
Council business groups	29 business groups in 5 divisions
Wholly owned businesses	The Edge, Metrowater
Regionally owned businesses	Watercare services Ltd, ARTNL
Regional Consortiums	Libraries of the Greater Auckland Region (eLGAR)

Table 2.1.1 – Customers

The stakeholders are:

Ratepayers	Represented by the Mayor and Councillors
Ratepayers of other LTAs	For regional shared services
Customers	As above
Suppliers	Suppliers of IT products and services

Table 2.1.2 – Stakeholders

IT is delivered to the Council as a shared service. This service is the responsibility of the ITC business group

ITC does not consult directly with stakeholders. Stakeholder requirements or interests are incorporated into the Asset Management Plan as a result of ITC consultation with business groups. ITC consults with the business groups in the following ways:

Type of consultation	Description
Executive consultation and setting organisation-wide strategy	CIO consults with business groups at the executive level using consultative forums, including the CIO Advisory Board, Cornerstone Steering Groups and Advisory Groups.
IT strategy	ITC consults with business groups during the development of the IT Plan
Levels of Service	ITC reviews IT service levels with business groups during regular performance reviews and consults at a tactical level with business groups during the performance of its service functions

Table 2.1.3 – ITC consultation with business groups

2.2 From The City Vision to AMP Tactical Goals

The Council has a long term vision to be the ‘First City in the Pacific’ The Strategic Framework provides the linkage between the vision and the strategies that drive the business planning process.

ITC contributes to the organisation’s strategies. These strategies measure outcomes, directly measuring the value that the Council provides to its constituents and stakeholders through the delivery of products and services.

ITC’s contribution to the Council Strategies is set-out in the 2008/2009 ITC Business Plan, an extract of which is included below

Strategy	What Will Be Different by the End of 2008/09?
1. Economic Development	Organisations will find it easier to do business with Auckland City Council because of the smart use of technology. Auckland City becomes a preferred place for businesses to invest.
2. Transport Choices	Technology will assist in planners and project managers in enhancing transport choices – modelling will assist in the making the right planning choices while programme management software will assist in achieving our capital investment plans.
3. Strong and Healthy Communities	Community technology awareness and competency will be lifted through experiences gained at library learning centres and free internet access.
4. Lifestyle Choices	People will have more choice around how they prefer to interact with Auckland City Council.
5. Quality Built Environment	The quality of the built environment will improve as technology evolves to ensure planners have better access to the information they need to make decisions.
6. Quality Natural Environment	The quality of the natural environment will improve as technology evolves to ensure planners have better access to the information they need to make decisions.
7. Efficient and Capable Council	Customers will experience less hassle and improved service when interacting with Auckland City Council through more efficient and effective delivery channels. Greater levels of customer self service will be available with lower levels of staff intervention. Our cornerstone information systems are more fully utilised and therefore improves our return on investments. Through improved systems and processes our costs to transact will reduce per transaction.

Table 2.2.1 – ITC support for Council strategies as defined in the IT Business Plan

ITC contributes most importantly towards the strategy of the Council to be an ‘Efficient and Capable Council’.

The ITC Levels of Service statements that define the current levels of service (and their reference number) are

- To provide robust, reliable and secure systems (LOS1)
- To maximise the organisations benefit from its IT investment by ensuring that users are trained effectively, maximum use is made of the functionality available, problems are resolved quickly and the systems continue to evolve to meet the needs of the organisation (LOS2)
- To assist business groups to achieve their outcomes through the integration and support of their line of business technology systems (LOS3)
- To assist the business to make informed decisions through the provisions of IT expertise, research and knowledge (LOS4)
- Organisational productivity gains and business process improvements throughout the organisation are promoted (LOS5)
- Thought leadership in the role of IT in enabling service and efficiency improvements are provided (LOS6)

Auckland City Council is a large organisation that historically used to handle a small number of large change projects concurrently and internal capabilities have been scoped and scaled accordingly. The organisation is now required to catch up on organisational capabilities, support growth and deliver to increasing customers' expectations.

In December 2006 the Executive team approved the model for managing the portfolio of organization development (OD) projects. These are key internal transformation projects across the organization, which deliver significant benefits to Auckland city council and its customers.

The programme office takes a portfolio management approach to enable these key projects to be managed and delivered in an integrated and effective way, to ensure consistent and successful delivery of strategically aligned outcomes, within budget and required timeframes

In September 2007 the Executive team approved the organization's strategies that enable better connections between the long term goals for the city, our implementation plans and our measures for success. This and in particular the Efficient and Capable Council Strategy enables the programme office to facilitate a 5 year roadmap of internal projects. This roadmap is now used by the organization to evaluate progress towards achievement of the efficient and capable council strategic objectives. The programme office delivers the key projects as and when the relevant business cases are approved.

2.3 Legislative Requirements

Legislation that is relevant to the provision and management of IT services and assets is referred to in the following table

Legislation	IT implication
Health and Safety in Employment Act	Council staff and customers deploy, use and maintain IT assets without endangering their health
Building Act	IT assets must be fitted for use in compliance with building consents and warrants of fitness
Local Government Act	IT assets must comply with ACC's obligations under this act, including financial reporting
Resource Management Act	IT assets must be managed in a way that complies with the acts requirement for the sustainable management of natural and physical resources
Criminal Law	IT assets – such as the provision of internet access – must not be used for illegal or illicit purposes and the organisation must set-out the obligations of employees and customers in this regard.

Table 2.3.1 – IT policies and legislative requirements

2.4 Industry Standards and Guidelines

Guiding principles – which incorporate industry best practise on service standards - form the basis on which IT investment decisions are made within the Council.

These principles are set-out in the 2007 IT Plan, from which an extract follows.

There are inevitably competing interests when it comes to deciding what IT investments and projects can be supported in any given year. To guide decision makers and help business owners understand the thinking behind those decisions, ITC has developed a set of IT investment principles.

In general, organisation-wide benefit will be given more weight than individual groups' needs and priority will be given to IT solutions using the cornerstone systems. A new system requested by one group is more likely to be considered if it also has the potential to meet the needs of other parts of the business. It must also be easy to upgrade and support.

The guiding principles are described in the following table:

Principle	Description	Guideline
Span of control	Relates to how wide one system's footprint is taken into account when there may be specialist systems required for specific functions	ACC is moving towards integration, so large footprint ERP's (Enterprise Resource Planning) must be considered
Package vs. custom build	The choice of buying off-the-shelf packages or custom-building the functionality required	Packages preferred
Business "fit"	No packaged application will fit the business requirements 'out of the box', thus we need to choose either configuration or customisation	Configuration preferred
Scope	Identify the stakeholders of any architecture or system. Any solution which is implemented needs to take into account all impacted groups	Focus on the organisational benefit rather than individual business groups
Level of automation	The level of automation that systems provide, from simply recording of data, right up to making decisions	Supportive systems that allocate tasks and provide the right type of information to decision-makers
Standards	The use of industry standards wherever possible to minimise development time and costs as well as providing a future proof architecture	Open standards, but don't ignore government standards
Integration	The linking of disparate systems, so that they interact as a single system	Integrate both applications and data
Data quality	Relates to data reliability, accuracy and relevance	Require one authoritative source of Data
Performance and scalability	The ease with which a system can be modified to perform effectively as the business size increases	A modular architecture
Security	The protection against access to information by unauthorised users	Both system and information security should be addressed
Resilience and availability	This refers to the length of time a system is continuously operational and available for use.	Operational recovery should take into account business continuity plans of all council groups
Supportability/Systems Management	The ease with which maintenance and upgrades can be performed on a system	Multiple environments required
Application Development	Custom-development of applications through the use of programming languages	Move towards standard tools and frameworks, along with management of lifecycle

Table 2.4.1 – IT guiding principles

The guiding principles:

- are designed to ensure that the requirements of all of the business stakeholders are met for the most advantageous cost and
- provide direction to decision making where multiple choices exist in the investment, selection and implementation of new systems or functionality.

To ensure that the Council gets the best value for money and robust, commercially sound products that fit in with the overall IT infrastructure, the IT procurement guidelines are:

- focusing on a small number of supplier relationships
- reviewing major relationships (eg Telecom, Hewlett Packard) every three years and if necessary revisiting the market at that time
- ensuring contracts with major suppliers do not lock the council into long-term pricing structures
- focusing on the lowest total cost of ownership not necessarily the cheapest unit cost.

The risks of non-compliance include

Risk/Impact	Indicator
Disruption to business	Failure to meet service levels
Constraint on the business	Failure to implement service level improvements
Increased total cost of ownership (TCO)	Poor interoperability and/or data integrity
	Lack of future proofing
	More time consuming and rework required
Compromise organisational integrity and reputation	Unauthorised access to information
	Poor quality data
	Reduced level of customer service
Restrict democracy and participation	Reduced level of customer service

Table 2.4.2 – Risks of non-compliance

2.5 Risks Posed by Negative Effects

The IT Infrastructure asset – which is described in greater detail later in this chapter – generally provides positive effects for the organisation.

The positive effects are constantly measured through the annual planning processes – investment in the IT Infrastructure asset and the positive effects it provides for the organisation would not be maintained without that being the case.

The potential for negative environment effects, because of the comparatively short-term and disposable nature of some IT assets, is mitigated by the policy of using a disposal partner for the safe destruction and re-use of IT equipment. IT sustainability is discussed further in chapter 5 of this plan.

2.6 Current Level of Service

IT is a shared service at the Council.

This document will refer to the IT assets within the organisation as the IT Infrastructure asset – this refers to the phones, PCs, servers, storage systems, cornerstone systems, data networks and other components that comprise the hardware systems and software licences that provide IT services to customers.

The rationale for the shared service and the responsibilities that result are described in the ITC Mandate, an extract of which is included in Appendix 3 of this plan.

2.6.1 Services that ITC provide in the IT Shared Services environment

A general description of the services ITC provides is included in the following table.

IT Service	IT Service Levels
IT Infrastructure	ITC provides the IT Infrastructure to agreed service levels
Procurement	ITC procures and deploys IT goods and services for the IT Infrastructure and Line of Business systems as per agreed procurement KPIs
Projects (that use IT)	Services provided for IT projects are as follows; <ul style="list-style-type: none"> • Projects to develop the IT Infrastructure for Levels of Service and/or Growth and Demand reasons will be provided by ITC, as required • ITC and business groups will agree joint service levels for projects that use or are part of the IT Infrastructure - as part of the project initiation • Projects for Line of Business systems that do not use the IT Infrastructure may negotiate ITC involvement
Application development	ITC will build, test and implement applications as per the Project agreements described above
Application lifecycle management	ITC will provide version upgrades and maintenance fixes to meet the requirements of the applications running in the IT Infrastructure
Business/IT consulting	ITC will negotiate and agree the IT consulting service levels with the business groups
Facilities Operations	ITC will operate and maintain the IT Infrastructure using detailed KPIs – including Infrastructure plans, Service Level Agreements (SLAs) with service providers and Strategic Partnership Agreements (SPAs) with business groups.
Support	The ITC Support Centre provides comprehensive 1st level support of the IT Infrastructure, including 'Onsite Support' to business groups
	The Cornerstone support offices provide 2nd level support for the cornerstone applications
	The Millennium System Support Team provides 2nd level support for the Millennium application
Regional Services	ITC provides the current IT regional service – eLGAR Hosting
IT training	ITC will provide IT training in support of projects, application lifecycles and the use of the IT Infrastructure.

Table 2.6.1 – ITC services

2.6.2 ITC Level of Service performance measures

The following table sets out the ITC business performance measures by Levels of Service statement reference (see section 2.2)

LOS reference	Measure type	Performance measures	Target	Result
LOS1	Technical	The number of infrastructure problem tickets do not exceed the accepted industry standard	95	94
	Technical	The number of significant security breaches escalated to the security management team	0	1
LOS2	Technical	Total number of SAP issues resolved at period end – plus or minus 15% of previous month	60	90
	Technical	Total number of SAP issues closed within the reporting period – plus or minus 15% of previous month	60	90
	Technical	Total number of SAP issues open at period end – plus or minus 15% of previous month	30	80
	Customer	Percentage of satisfaction by ITC Support Centre users with communication, the appropriate skills, timeliness	65+	61
	Technical	System availability – the percentage of scheduled uptime for critical systems	99	100
	Technical	Percentage of moves, adds and changes where commitment target was met	95	100
LOS3	Customer	Percentage of satisfaction of users with the ITC Support centre provided to support line of business systems	65+	61
	Technical	Percentage availability of a selected number of line of business systems/applications averaged and reported as a single percentage availability score	99	100
LOS4	Customer	Percentage of satisfaction by key contacts with the quality of advice, application of business knowledge and value-added delivered	80	See notes
LOS5	Technical	Completeness of initiatives to leverage off Council's investment in Cornerstone systems	See notes	See notes
LOS6	Technical	Strategic IT planning and awareness and execution planning are undertaken	See notes	See notes

Table 2.6.2 – ITC Levels of Service performance measures

Notes: Some of the measures are reported quarterly and the reporting against these measures (and other improvements, including gaps in service provision levels) will form part of the improvement plan set out in chapter nine of this plan.

2.7 IT assets in the shared services environment

The ownership of assets comprising the IT Infrastructure is shared between three parties, ITC, business groups and third party providers.

ITC purchase and manage assets for the IT Infrastructure on behalf of the organisation, including Line of Business assets of behalf of business groups, leveraging off ITC's relationship with suppliers.

Business groups manage Line of Business IT assets. An example of a Line of Business system is the Public Access Computing system provided to Library customers. Likewise, the user licences that pertain to these systems are 'owned' by the business group.

Line of Business IT assets do not exist in the IT asset register – an asset register that is the responsibility of ITC to operate and maintain. This plan will refer in detail to IT assets provided as part of the IT Infrastructure only – i.e. those assets referenced in the IT asset register, and will not refer in detail to business group IT assets.

Some of the assets in the IT Infrastructure are provided as part of the third party service. An example of this is the data network, where the third party service provider provides some of the equipment provided as part of that service. These assets and the related services are procured and managed by ITC using Service Level Agreements with the service provider and similar to the Line of Business systems, these assets will not be contained in the IT asset register.

The relationship between IT governance, services, infrastructure and assets is shown below:

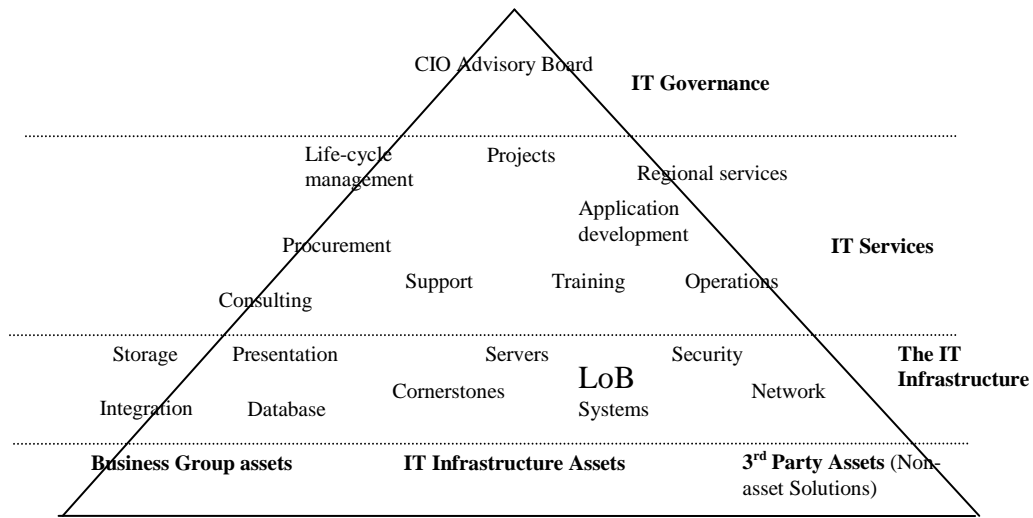


Figure 2.7.1 – ITC Governance, Services, Infrastructure and Assets

The IT Infrastructure is provided on an ‘always available’ basis, subject to planned outages.

The support for the IT Infrastructure and the availability of Line of Business systems, outside of business hours, is subject to agreement with business groups.

2.7.1 The IT Infrastructure Asset Groups

ITC define three asset groups in the IT Infrastructure. They are set out in the following table

Asset Group	Sub groups
IT Core Infrastructure	Network/Telephony
	Servers
	Storage
	Operations and Management
	Office Automation
Desktop Replacement	Desktop rolling 5-year replacement
IT Core Applications	SAP
	Pathway
	Filenet
	Spatial
	WWW
	Citynet

Table 2.6.3 – ITC Asset Groups

The following diagram depicts the IT Infrastructure, illustrating the key components and with the use of colour, the Cornerstone applications.

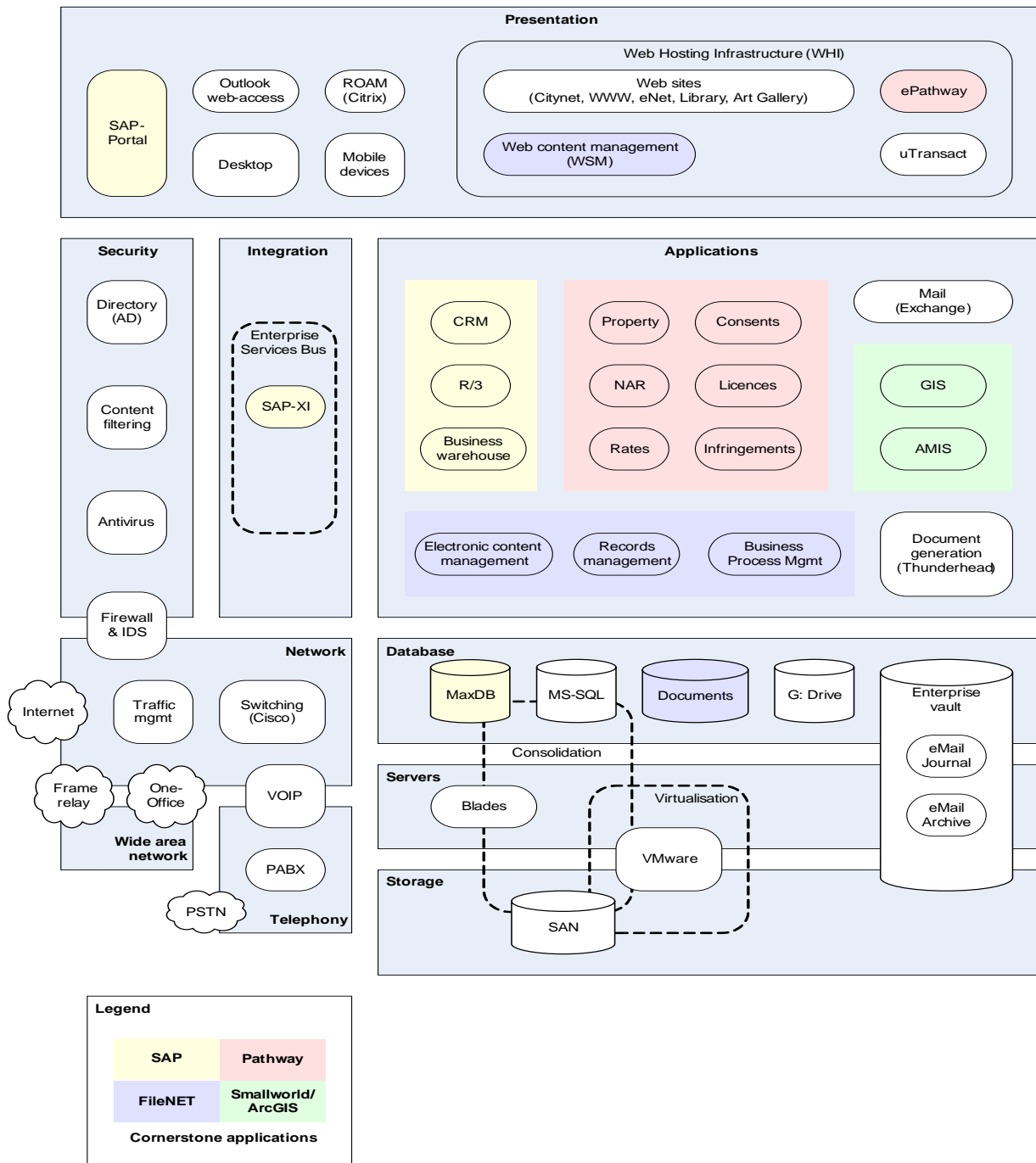


Figure 2.7.2 – IT Infrastructure

2.7.2 The IT Core Infrastructure Asset Group

The IT Core Infrastructure group includes physical hardware and software support systems for operating and managing information technology processes, services and applications

The following is an extract from the 2007 IT Plan

The infrastructure strategy describes the fundamental, long-term goals and guidelines that direct the architecture (including Cornerstone Systems) and influences design decisions. It prescribes a pathway forward to future visions of the technical landscape and facilitates a planned and cohesive evolution towards them.

The IT Infrastructure strategic planning principles are:

Data Centre

- Consolidation of infrastructure into data centre
- Multi-level disaster recovery strategy for service recovery.

Cornerstone application systems

- Long-term investment in enterprise applications for core services
- Leverage these services first and preferentially evolve them, before introducing new systems.

Service Oriented Architecture (SOA)

- Platform to facilitate application, process and service integration
- Promote re-use (leveraging) of cornerstone and other system functionality
- More value extracted from application investment.

The diagram below depicts a set of major infrastructure technologies and components. The green elements are generally applications oriented; the purple are physical elements; and the orange are core infrastructure services. The arrows are indicative of inter-relationships between the components (e.g. dependency).

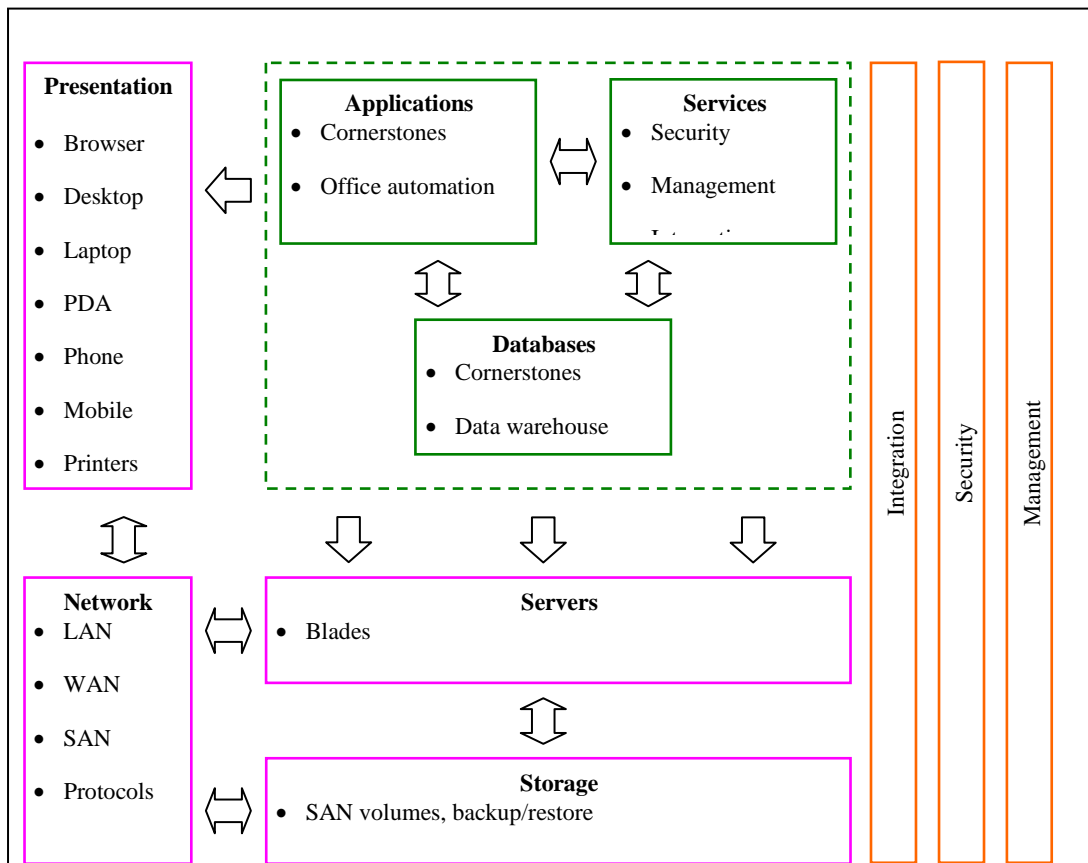


Figure 2.7.3 – IT Core Infrastructure

The following diagram depicts the IT network asset in greater detail

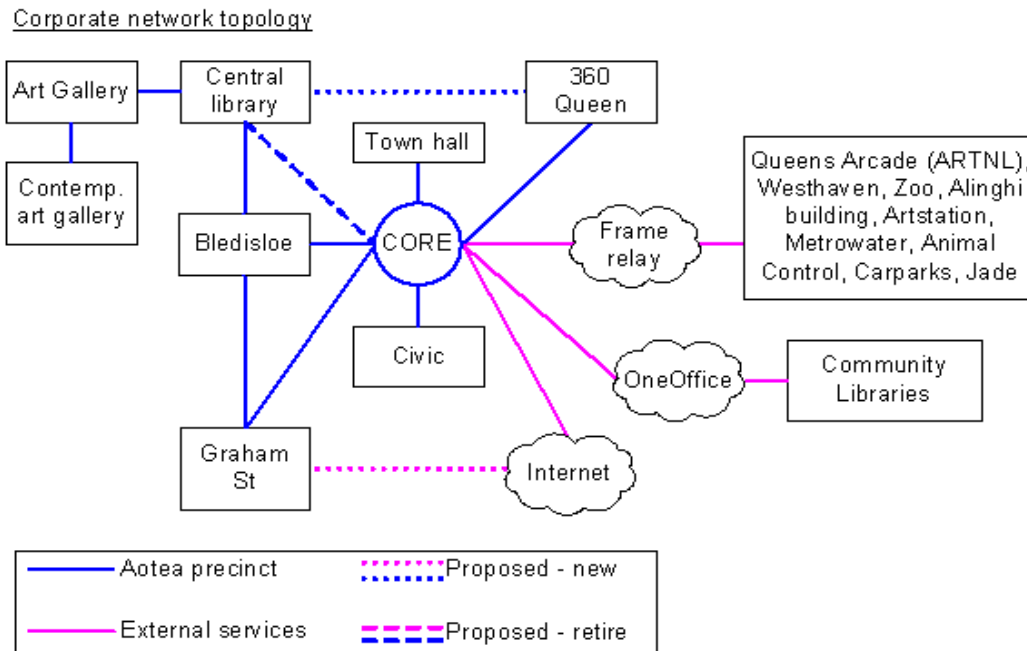


Figure 2.7.4 – The network component of the IT Core Infrastructure

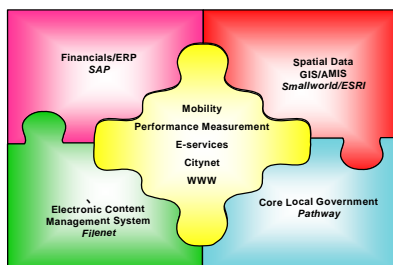
2.7.3 The IT Core Applications asset group

The IT Core Applications group includes those software applications that provide business functionality to users, including the cornerstone systems.

The cornerstone systems are:

- Pathway, through which we carry out most of our business functions such as rates and billing, building and development applications, licensing, customer service and e-commerce. Our customers go through ePathway to use our electronic products and services
- SAP – our financial and property management tool
- Spatial data systems, such as Smallworld and ESRI arcGIS, which hold maps and in-depth information about geographical areas, assets and infrastructure
- FileNet, an electronic, organisation-wide content management system through which information in a range of formats can be created, published and archived.

Auckland City Cornerstones



The cornerstone systems are best of breed applications and were selected and implemented after extensive examination by the business and ITC of the alternatives in the marketplace. This approach avoids unnecessary additional expenditure through having multiple systems requiring multiple infrastructures, separate lifecycle evolution, vendor management and specialist in-house or outsourced competencies to provide support.

Across the cornerstone systems are others that access various information sets to produce new content or deliver services in a different way eg the e-services delivering online transactions to customers or mobility delivering information and business processes to third parties or remote workers – Mobility, Performance Management, e-services, Citynet, WWW.

Auckland City Council’s cornerstone systems are also extended with a number of Line of Business systems. Line of Business systems are the systems that are an integral part of the way the business service is provided by an individual business group.

They are either legacy systems that have not been evaluated against the cornerstones or it has been agreed that the cornerstone systems can not meet the business requirements.

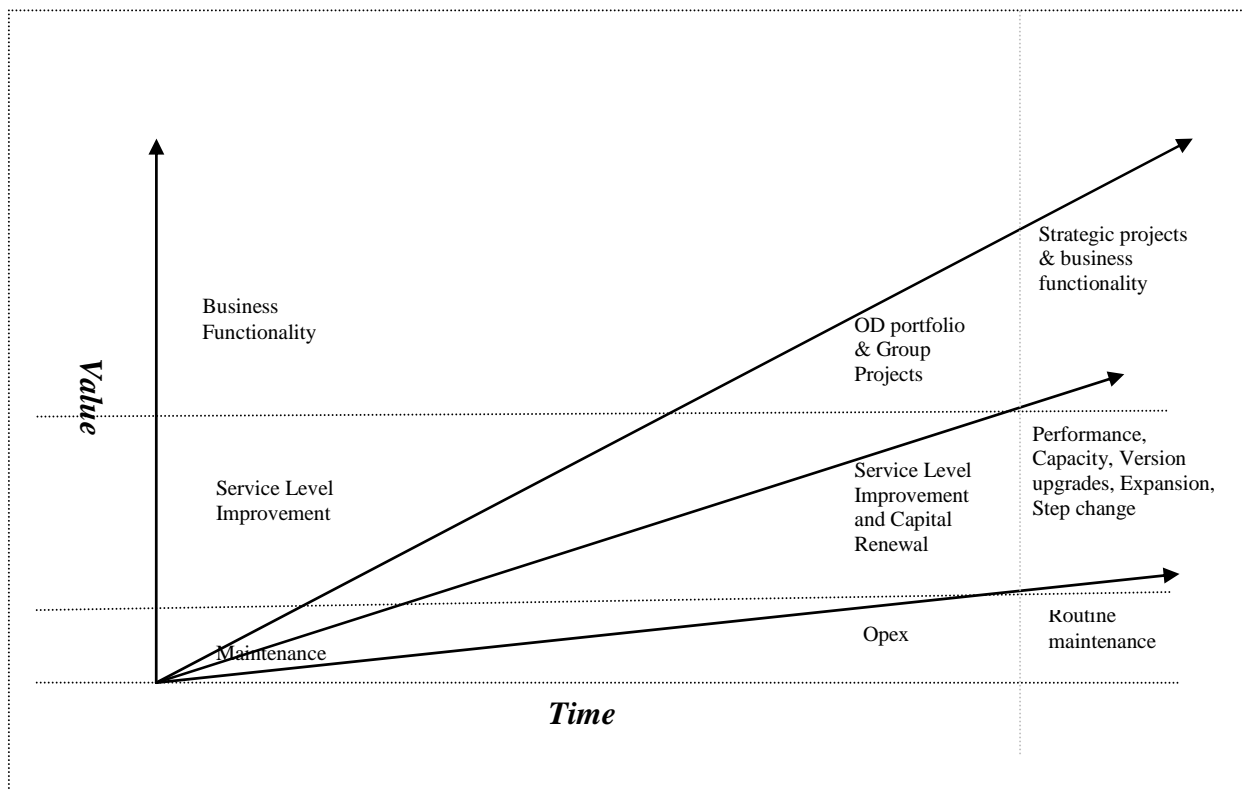
For applications outside the cornerstone systems, the approach is to either tolerate them, preferably migrate them into the cornerstones, integrate them or eliminate them.

2.8 IT Expenditure

The funding streams that contribute to the value of Information Technology are:

- ITC Operational expenditure – a budget held by ITC that provides the routine maintenance, intellectual capability as represented by staff and non-asset solutions from third party providers. Consequential Opex results from project implementations.
- ITC Capital expenditure – a budget held by ITC that provides for improved performance, capacity, upgrade, expansion and lifecycle replacement of the IT Infrastructure asset. This budget also holds the funding for consistent and regular lifecycle replacement of the Desktop. In the parlance of this plan, this budget is described as Capital Renewal.
- Business Group and Organisational Development capital expenditure – these are the budgets the organisation holds to develop and implement strategic initiatives and they contribute to the value of the IT Infrastructure by extending and adding business functionality.

The expenditure made by the Council on the IT Infrastructure asset is represented in the following diagram:



IT Expenditure (Contributors to value over time)

Figure 2.8.1 – IT expenditure

The ITC capital budget for FY 2007/2008 comprised three main projects – Infrastructure Upgrade, Computer Asset Management and IT Systems Evolution.

In the table below, the ITC FY2007/2008 capital budget has been analysed to identify the key areas of service level improvement by project.

WBS	Project Name	Performance	Desktop Life-cycle Replacement	Capacity	Version Evolution	Budget
682/10	Infrastructure Upgrade	✓		✓		\$1,706,000
682/30	Computer Asset Management		✓			\$1,000,000
682/40	IT Systems Evolution	✓		✓	✓	\$2,279,000

Table 2.8.1 – ITC Capital budget by project

Please note that these project names may vary as budgets are developed for future years. The benefits of expenditure in IT services are described in the discussion of IT value in the 2007 Information Technology Plan, which concludes with the following:

Value is multi-dimensional, complex and hard to quantify. Investment in IT is like the chain on a bicycle: it is impossible to isolate out the value delivered by just the one component. There are no first-order effects linking IT investment and value. IT is a form of Research & Development, justifiable as a longer-term investment with an intended future payoff.

Whatever benefits do arise are lagged and are difficult - if not impossible - to link to the IT expenditures that underpinned them. IT is necessary but not sufficient to create enduring value for Auckland City Council. Also mandatory for success is the development and maintenance of three assets: skilled people, reliable and defensible data and adapted business processes.

ITC contributes to these assets through business partnering, thought leadership, use of modern methodologies, provision of consultancy that emphasises the use of technology for business ends while paying constant attention to business improvement and technology evolution.

All this is evaluated and directed by deploying emergent best practices to leverage value across the whole IT investment. The contribution and value of IT is reflected in business performance measures

2.9 Desired Levels of Service

2.9.1 Levels of Service Drivers

A number of internal and external driving forces, identified in the tables below, have been considered when defining the ITC capital expenditure budget.

Internal Drivers	Our response
A demand for more technology to support business process	Develop ITC project delivery capability further.
The need for IT investment in cornerstone systems rather than 'best of breed' line of business systems	<ul style="list-style-type: none"> Work with the OD Portfolio to define requirements. Maintain the principle that cornerstones are used when ever possible, rather than 'best of breed' line of business systems.
The future of 'line of business' systems as cornerstone systems cover greater functionality	ITC to review the relationship and support of line of business systems with a view to changing the current approach.
Governance of the whole IT portfolio versus cornerstones and line of business being separate	<ul style="list-style-type: none"> Move to a new governance structure. Review the role of business partners for systems within the organisation.
The demand on ITC in a period of high demand for new systems	Develop ITC project delivery capability further.
The need for a consistent information management framework organisation wide	Information management centre of excellence and IM guiding principles.

Table 2.9.1 – Level of Service internal drivers

External Drivers	Our response
<p>Increasing customer expectations</p> <ul style="list-style-type: none"> Customers are expecting more real time access to their information and personalised service There is pressure to drastically reduce costs of compliance Potential exposure to litigation if inadequately maintained property information is provided to customers New Zealanders and particularly the younger generation have a quick uptake of technology and expect to engage with organisations electronically. The impact of personal IT tools 	<ul style="list-style-type: none"> Use technologies to enable process and customer service improvements Use our technology to understand our customers Increase the ability to engage and transact with Auckland City Council online Implement information lifecycle management across critical information sets Create new and innovative information products Prepare for the broadband environment Implement a single view of the customer Customers expect that self-service tools will be easy to use and use an interface that they are familiar with
<p>Changing workforce expectations</p> <ul style="list-style-type: none"> There is an increase in people taking up the opportunity to have greater flexibility in their working lifestyle including where they work from and when A greater reliance on third party partners and outsourcing to achieve outcomes. 	<ul style="list-style-type: none"> Evolve remote working infrastructure and services Authenticate and provide remote electronic access to information and data in cornerstone systems Workplace tools will increasingly be consistent with personal IT tools and provide a similar interface
<p>Demographics and population growth</p> <ul style="list-style-type: none"> More people living in the city will place increasing demands on services, facilities and resources (eg staff, operating hours etc) Auckland City is becoming more ethnically diverse requiring services to be provided in appropriate and accessible ways to diverse communities. 	<ul style="list-style-type: none"> Deliver smart technology and processes supporting staff Expand customer self-service opportunities Expand customer channels, services and content The impact of social networking tools will increasingly influence how we communicate with our customers
<p>Declining participation in the democratic processes</p> <ul style="list-style-type: none"> Declining participation in local government elections Low participation in consultation exercises. 	<ul style="list-style-type: none"> Identify innovative Web 2.0 opportunities for participation e.g. online forums Utilise spatial technologies for sophisticated visual consultation purposes

Table 2.9.2 – Level of Service External drivers

Along with the drivers described above, a number of environmental factors can be identified that drive a service level improvement plan. They are:

Political	<ul style="list-style-type: none"> Regional shared services may demand more services The increased sophistication of technology is required to support and be used by elected representatives.
Economic	<ul style="list-style-type: none"> Businesses considering to establish or grow in Auckland City want a council that is easy to work with. More people living in the city will place demands on services and resources (e.g. staff, operating hours).
Social / Cultural	<ul style="list-style-type: none"> There is an increase in people looking for greater flexibility in their working lifestyle. Customers are expecting more real time access to their information and personalised service. The younger generations have a quick uptake of technology and expect to engage with organisations electronically.
Technology	<ul style="list-style-type: none"> New technologies can encourage participation in local government. The growing use of spatial technologies can provide sophisticated visual consultation processes. Broadband implementation and uptake is increasing.
Environmental	<ul style="list-style-type: none"> The demand for Green IT
Legal	<ul style="list-style-type: none"> There is an increased focus on litigation where information management is inadequately addressed.

Table 2.9.3 – Environmental factors

ITC desired levels of service are also expressed as the result of a Service Delivery Review that was undertaken in late 2007. The details of this review are included as Appendix 4 of this plan.

The Organisational Development Priorities Report to the Council Executive in 2007 sets out the roadmap for projects. ITC plans the ITC capital expenditure projects to prepare the IT Infrastructure to be capable of supporting these initiatives and to ensure that the IT Infrastructure is not a constraint for the business realising this portfolio of work.

The Organization Development portfolio is primarily aimed at improving service levels for internal and external customers in order to achieve the efficient and capable council strategic objectives.

The OD project roadmap is summarised into programmes, the key multi-year ones being:

- Strategic Planning and Performance Measurement delivers the processes and systems to enable the organization's planning and performance measurement processes to be driven by the strategies
- Organisation-wide Portfolio, Programme and Project Management Processes & Tools delivers the processes and systems for the organization's projects to be evaluated, prioritized, governed and delivered in ways the optimize the strategic benefits achieved
- HR Information Systems delivers robust, scalable and integrated human resource management processes and systems to enable the council to achieve the organization's HR strategy. Auckland City's HR strategy is in turn a critical component supporting the achievement of Auckland City Council's business objectives and journey from "good to great".
- Customer Service Excellence delivers the processes and systems to embed improvements to the customer service experience
- Finance Roadmap will deliver the following improvements to the organization:
 - Finance capability development
 - An improved control environment
 - Increased levels of operational transparency across the whole organisation
 - Increased efficiency of transactional activities
 - Improved financial and non-financial reporting environment
 - Generally increased resource balance towards true 'value add' finance activities
 - More stable, function-rich supporting systems and technology environment

2.10 Service Level Improvement Capital New Works Plan

This plan defines two asset groups for which service level improvement capital is required. These asset groups are

- IT Core Infrastructure – those components of the IT Infrastructure including servers, storage and networks and associated software
- IT Core Applications – those software applications systems, including cornerstone applications

The third asset group within the IT Infrastructure – Desktop Replacement – is defined as Capital Renewal works.

Within the Service Level Improvement Capital new works plan ITC defines the improvements using the following service level descriptions.

- **performance** – the incremental investment in IT Infrastructure to ensure optimum availability, reliability and responsiveness. An example of this may be the investment in network software and hardware to support more bandwidth to the desktop
- **capacity** – the incremental investment in software and hardware to meet the growth and demand of customers – an example of this may be the need for new disk storage to support increased structured and unstructured data in the organisation
- **version upgrade** – the implementation of software to retain currency, supportability and compatibility. An example of this is the migration from SAP R3 to SAP ECC6
- **expansion/leverage** - add new functional capability to an existing system. An example of this is the addition of Electronic Records Management capability on Filenet.

- **Lifecycle Replacement/step change** – the redevelopment of a system and the ‘end of life’ replacement of hardware. Examples of this are the replacement of Pathway, planned for FY12 and the rolling 5-year replacement of PCs.

The continuing investment in service level improvement for the IT Core Infrastructure asset group is set-out by asset subgroup below:

Network/telephony

- Expanded capacity to core and edge of network and expanded capacity of telephony systems due to increased demand over the three years
- Performance enhancements to the network to meet customer expectations over the next three years
- Version upgrades of network/telephony systems including a planned upgrade of Symposium and a ROAM expansion in FY09

Servers

- A VMWARE ‘virtualisation’ project to consolidate the server environment and a new testing infrastructure are planned for FY09
- Addition capacity and performance related service level improvement is planned for the next 3 years

Storage

- Expenditure for storage media replacement and growth is planned for the next 3 years
- Performance and lifecycle replacement service level improvements will be invested in the SAN storage asset over the next 3 years
- Capacity expenditure is planned to support increased levels of data storage

Operations and management

- Investment in operations and management capabilities will be undertaken in the next 3 years including:
 - Security – intrusion detection
 - Service monitoring – tools to provide enhanced monitoring of service levels
 - Backup solution – an enhanced backup solution
 - Integration – services to enable the increasing demand for interoperability of systems

Office Automation

- Investment will be made in access licences for Microsoft Office applications to retain currency and keep pace with increased demand

Internet Services

- Investment required to upgrade the Council's internet access

The continuing investment in service level improvements for the IT Core Applications asset group is set-out by asset sub group below:

SAP

- The expenditure forecast for SAP during the FY09-FY11 period includes increased capacity and performance related expenditure and support for new module expansion

Pathway

- Expenditure is planned for FY09 to complete the Worksmart to Pathway migration and the upgrade to Pathway version 3.02 to provide new service capabilities based on the .NET architecture – the Microsoft Windows application library
- The expenditure during FY10 and FY11 is aimed for version upgrades – there are 2 planned for each year – and to satisfy capacity and performance growth demands

FileNET

- Expenditure for FY09 is planned for the migration of the FileNET system from version 3.6 to version 4, in support of increased demand for content management capability across the organisation
- During FY10 and FY11, the expenditure is planned to support the continued demand to implement Information Management processes throughout the organisation and initiatives to migrate unstructured data – g:drive data – to FileNET.

Spatial systems

- Expenditure for FY09 is planned for the completion of the migration from Smallworld to the ERSI ARC-GIS product and the implementation of a GIS viewer
- Significantly increased funding is planned for FY10 for the migration of AMIS from the Smallworld environment to the ARC-GIS environment.

WWW

- The expenditure in FY09 is planned for the upgrade of the Council website using a new Web Content Management System (currently under review)
- Expenditure for FY10 and FY11 is expected in the continued expansion and leverage of the website platform to provide new self-service, workplace collaboration and other services

Citynet

- Expenditure is planned for FY09 for the development and upgrade of Citynet following or merged with the migration to a new web content management system that is part of IBM's (Filenet's owner) strategic direction for content management
- Expenditure to meet capacity and performance service levels is planned for FY10 and FY11

Lifecycle Replacement/Step-change service level improvements include

- an additional spend of \$900,000 planned for the FY10 for the AMIS upgrade
- a spend of \$2.5m on a Desktop upgrade, split between FY13 and FY14
- a multi-million dollar investment in a Pathway replacement, planned for FY12

New Works Service Level Improvement - ITC					
	2008/09	2009/10	2010/11	2011/12	2012/13
Total	4,548	4,923	4,042	13,830	5,265

Figure 2.10.1 – Capital New Works Expenditure Prediction - ITC

Source – Auckland City Council Annual Plan, Plan Version 18, July 2009

3 Managing Growth and Demand

The IT Infrastructure asset is impacted by growth and demand.

The capital expenditure that ITC holds – and that is referred to as Service Level Improvement capital expenditure – is responsible for the enterprise-wide improvements in capacity and performance of the IT Infrastructure asset. The growth forecasts that drive these improvements are described in this plan.

The Council uses new technology as part of its growth and demand strategy, and it also looks forward to future developments to determine applicability to the IT Infrastructure, or changes to the IT Infrastructure that may be required as the benefits become proven. Three technology trends being monitored are described.

There has been no Growth and Demand capital new works expenditure identified during the development of this plan. This is because the growth and demand strategy for the IT Infrastructure is based on leveraging off the existing investment in the IT Infrastructure asset and enhancing the asset with service level improvements.

ITC uses a number of strategies to mitigate the cost of growth and demand of IT to the organisation. In this way, the continuing growth in disk storage consumption, network capacity and server processing power is not directly translated into an equivalent growth in capital expenditure.

The strategies ITC uses to mitigate growth and demand increased costs include non-asset solutions, innovation, supplier management and demand management. Where growth and demand cannot be met – where the demand outstrips the funding due to unforeseen circumstances – ITC will participate in the annual planning round. A description of these mitigating strategies is included

3.1 The Impact of Growth and Demand

The IT Infrastructure asset is impacted by growth and demand. The organisation holds the capital budget for Organisational Development (OD) portfolio projects and that expenditure meets the demand for new services to meet customer expectations.

The expenditure that ITC holds – and that is referred to as Service Level Improvement capital expenditure – is responsible for the enterprise-wide improvements in capacity and performance of the IT Infrastructure asset.

For the IT Infrastructure, growth is reflected in the expenditure to improve service levels in support of the OD portfolio of projects, in this way ITC ensures that the IT Infrastructure is not a constraint on business initiatives. Examples of the growth pressures on the IT Core Infrastructure include:

- Storage – historically, disk storage consumption has grown and is projected to continue to grow. The Council uses a ‘disk on demand’ strategy to meet this growth when required and uses technological advances to mitigate the impact
- Network and telephony – new software solutions impact on the growth of network bandwidth to the desktop, including the increased growth in internet traffic as internet services become part of the organisation’s common work tools.
- The growth of server processing power bought about by OD projects and other business initiatives requires increasing sophisticated operations and management tools. This capability requires additional processing power in its own right. Additionally, the OD portfolio of projects often require new technology – e.g. 64 bit application support – which requires lifecycle replacement expenditure.

3.2 Demand Forecast

As set-out in previous chapters of this plan, there are a number of demand drivers that influence the development of the IT Infrastructure asset. They include internal drivers – those pressures that the organization places on the IT Infrastructure – and external drivers – those pressures that external customers place on the ‘customer facing’ capabilities of the asset.

The internal drivers, in summary, are

- The demand for technology – increasingly organizations look to advances in technology to enhance internal processes
- Continued investment in cornerstone systems - ensuring the most cost effective means of providing business functionality
- Demand for governance and expertise – the demand for technology requires systems and people to make the best use of the money invested
- The need for consistent information management – the deliberate management of information, identifying valuable information, maximising its value to users and it costs to the business

The external drivers, in summary, are

- Increasing customer expectations – more real-time and online access to information, reduced cost of compliance and personalised service based on information systems
- Changing workforce expectations – remote access for staff and suppliers to information systems
- Demographics and population growth – access of information for an ethnically diverse population base and smarter technology for staff to provide solutions
- Democratic processes – using technology to assist the participation in the democratic process

The organisation's strategy to respond to the demand drivers is to use the existing investment in the IT Infrastructure to provide responses in all areas. The projects that respond to these drivers are, in the main, held within the OD portfolio of projects. Where external drivers require an enterprise wide solution – a version upgrade for example – the ITC capital expenditure budget is used.

3.3 Changes in Technology

The Council uses new technology as part of its growth and demand strategy, and it also looks forward to future developments to determine applicability to the IT Infrastructure, or changes to the IT Infrastructure that may be required as the benefits become proven. The following is an extract from the 2007 Information Technology Plan that refers to trends that are being monitored.

The three technology trends being monitored are:

- The Information Workplace – a discussion on the evolution of the workplace technologies and their likely formation to deliver a new, vastly different workplace environment to the information workers of tomorrow.
- Web 2.0 - Web 2.0 refers to the next generation of Internet-based services, such as social networking and community-based web sites that let people collaborate and share information in new ways. The questions Auckland City Council needs to consider with the evolution of Web 2.0 concepts and technologies are outlined.
- Search – Advances in enterprise search technologies to support staff in efficiently accessing the right information for the task at hand

3.4 Demand Management Plan

As previously referred to, the ITC capital budget is used for Service level Improvement capital new works and in the main, the OD portfolio capital budget provides the new business functionality required by the external drivers, and therefore provides the demand management plan.

However, ITC uses a number of strategies to mitigate the cost of growth and demand of IT to the organisation. In this way, the continuing growth in disk storage consumption, network capacity and server processing power is not directly translated into an equivalent growth in capital expenditure.

The strategies ITC uses to mitigate growth and demand increased costs include non-asset solutions, innovation, supplier management and demand management. Where growth and demand cannot be met – where the demand outstrips the funding due to unforeseen circumstances – ITC will participate in the annual planning round.

A description of these mitigating strategies is included below

Non-asset solutions

The Council does not build or own all of the IT Infrastructure assets. A significant part of the network asset that provides the wide-area network – those cables and other devices that transport data to the part of Council business that are remote from the Aotea precinct – use a service provided by telecommunications providers.

For the Council, as with most organizations, the investment associated with developing and owning all IT Infrastructure assets is not cost effective. Additionally, using a service provider to provide services where the capital investment is large provides greater flexibility and leverages off suppliers' 'economies of scale'. Consequently, as a customer of the service, the Council pays for what it needs and is not required to invest in 'future-proofing' the asset, and at the same time can vary the cost of the service it pays to more closely match the demand.

Likewise, the costs of providing an alternate-site solution for business continuity purposes make the use of a service provider services preferable to building and owning the solution.

Both of the solutions referred to in this section are managed as a contracted service with service level commitments from the supplier

Innovation

Technology innovation mitigates the costs of growth demands.

An example of this in practice is the recent refitting of the '360 Queen St'. Advances in VOIP (Voice over Internet Protocol) enabled the telephony services to be provided to that building without additional cabling or the costs associated with the purchase of a new PABX. This technology saved thousands of dollars in capital expenditure and justified the investment in service level improvements to make the network equipment VOIP capable.

Most industry observers will note that 'standalone' servers make poor use of the processing and memory capability of the device. 'Virtualisation', a capability whereby more than one operating system e.g. Microsoft Server, can share one device and 'Blade' server technology, where processing devices are pooled using the same power and utility services, are both utilised by ITC. These are examples of innovations where the utilisation of the asset is increased with resultant savings in the investment required and the requirement for power and other utility functions is optimised.

'Virtualisation' technology is also available for storage services. The Council will implement this technology and this will provide a greater utilisation of disk storage because of less wastage of capacity.

The Council has deployed new 'backup' technology that shares the backup and recovery process between many devices, significantly reducing the need for 'dedicated' devices and standardising the services.

The Council looks to innovation to continue to significantly increase the value it provides to the business without significantly increasing the cost. ITC uses its service level improvement capital budget to ensure the technology is tested and ready for the business when it demands it, and to ensure technology is not a constraint on the business.

Supplier management

The Council manages suppliers by maintaining agreements with preferred suppliers for equipment and services.

The benefit of maintaining flexible agreements with preferred suppliers includes:

- The specification of purchases can be agreed to ensure only equipment that is 'fit for purpose' is supplied
- Preferred rates can be agreed
- The 'economies of scale' of the supplier can be transferred to the customer
- Continuity of supply is assured

Demand management

The Council manages the demand for IT resources by ensuring the resources are allocated to where the benefit is greatest and by monitoring to remove constraints.

The Desktop asset and network/telephony resources are supplied to business groups on a 'cost recovery' basis. Business groups are able to ensure the business use they make of the assets is focused on the greatest benefit and that no wastage of resources occurs.

ITC monitors key resources, especially when there is pressure on the resource. In this way, ITC acts as a 'guardian' of the resource. It also applies its expertise to ensuring the most effective use is made of any resource. For example, ITC can 'remodel' the access to resources on the internet – providing email with a lower service level than online access, thereby ensuring that the greatest business need has priority.

3.5 Growth and Demand Capital New Works Plan

There has been no Growth and Demand capital new works expenditure identified during the development of this plan. This is because the growth and demand strategy for IT is based on leveraging off the existing investment in the IT Infrastructure asset and enhancing the asset with service level improvements.

3.6 Demand Assumptions and Risk

The key assumptions made when predicting demand are

- the cornerstone systems will continue to provide the core functionality required by the business
- disk storage consumption can be provided 'on demand'

A key risk (and the mitigation) is identified in this demand plan.

At Desktop OS renewal time, we assume we will have 1-2 years worth of workstations requiring a licence upgrade and possible hardware upgrade or accelerated renewal. The risk is if deployment of Vista (or subsequent Windows OS) is brought forward significantly from 2013 due to a compelling business case, then a heavy upgrade or workstation renewal charge may be incurred. ITC will monitor Microsoft for any variation in their OEM licensing. Any change detrimental to the current Workstation/OS strategy may trigger a review.

4 Managing the Asset Lifecycle

The IT Infrastructure asset contains three asset groups – IT Core Infrastructure, Desktops and IT Core Applications.

The IT Infrastructure asset changes at a detail level frequently. The number of assets in each asset group is influenced by service level demand, e.g. the numbers of PCs available is dependant on the number of staff, and technology changes e.g. the shift of technology from 'stand-alone servers to 'blade-server' technology influences greatly the number of assets required to provide the IT Infrastructure asset. The numbers identified in this plan must be taken as 'at a point in time' and will change.

ITC has developed a Disaster Recovery Plan, within which, for the purposes of restoration of services, critical systems in the IT Infrastructure asset have been identified.

Performance of the IT Infrastructure asset is measured using the 'availability' key performance indicator.

The IT Infrastructure asset condition is maintained in a 'fit for purpose' condition. The strategy used to maintain this condition is

- The IT Infrastructure assets are under warranty from the supplier, where the conditions of that warranty – replacement, fix in place etc – are appropriate for the nature of the asset
- 'Standby' assets are maintained, as appropriate
- The core network links have alternate routing in case of failure
- The Council follows an industry-standard back-up and recovery strategy for its applications and data
- A Business Continuity Plan is in place for the IT Infrastructure asset to ensure that single failure of an asset, multiple failures of assets and 'restricted access to the IT Infrastructure' does not unnecessarily constrain the business of ACC

This chapter of the plan contains the General Operations plan, the Revenue plan, the Maintenance plan, the Disposal plan and the Capital Renewal plan for the IT Infrastructure asset.

4.1 Asset Portfolio Information

The IT Infrastructure asset contains three asset groups – IT Core Infrastructure, Desktops and IT Core Applications.

The relationship between these asset groups has been described fully in the previous chapter – The Service We Provide.

Physical Parameters

The IT Infrastructure asset changes at a detail level frequently. The number of assets in each asset group is influenced by service level demand, e.g. the numbers of PCs available is dependant on the number of staff, and technology changes e.g. the shift of technology from 'stand-alone servers to 'blade-server' technology influences greatly the number of assets required to provide the IT Infrastructure asset. The numbers identified in this section must be taken as 'at a point in time' and will change.

The assets described in this chapter are located at various locations within Council property. The majority of the IT Core Infrastructure and IT Core Applications assets are located in the Council Data Centre, which is in the Civic Building. Some network devices are located at Council buildings like libraries and PCs and laptops are located at staff member's place of work, and as in the case of mobile devices, can be located with the user.

As of March 2008, the portfolio of assets in the IT Infrastructure is as follows

Asset Group	Asset Sub group	Description	Quantity	Age
IT Core Infrastructure	Network/ telephony	PABX	10	Under warranty
		Desk Phones	2500	Under warranty
		Switch/Router	300	Majority under warranty, spares held where that is not the case
		Cabling	See notes	
	Server	Server	167	135 under warranty
	Storage	Storage	46	Under warranty
		Backup hardware	7	Under warranty
Office Automation	OA software	As required for organisation	Current	
Desktop	Desktop Replacement	PC	2815	5 years or less
		Laptop	259	2004-2008
		Printers	297	See notes
IT Core Applications	Cornerstone applications	SAP, Pathway, Spatial, Filenet, WWW and Citynet licences	As required by organisation	Current

Table 4.1.1 – ITC Asset Groups

Notes related to the portfolio information above include:

- ITC manages its hardware assets to be ‘fit for purpose’ and accordingly, in some cases ‘warrantable condition’ is a relevant indicator
- The Council holds warranty agreements on all servers that are considered critical to the business, hence not all servers have maintenance warranty agreements
- OA software refers to the Microsoft and other software on the desktop and client access to Microsoft server and database software
- The Council has an initiative underway to replace all printer assets with Multi-function devices.
- There are three types of cabling - fibre optic, copper for voice and copper for data (UTP). A description of the three cabling types includes:
 - fibre optic cabling connecting all council buildings in the diagram depicted in figure 2.7.4. Fibre optic cable provides high-bandwidth communications between the council buildings and the data centre where the servers and data are located
 - an extensive voice network between the eight council buildings using fibre optic and copper cabling
 - copper cabling within each floor of the eight buildings and other council buildings including libraries, with backbone cabling connecting the floors and horizontal cabling connecting voice and data.

A detailed description of the cabling component of the Network/telephony asset sub-group is provided in Appendix 2 of this plan

Critical Assets

ITC has developed a Disaster Recovery Plan, within which, for the purposes of restoration of services, critical systems in the IT Infrastructure asset have been identified.

The following extract from this plan, dated February 2008, has been included to define critical assets. ‘Critical’, in this sense, means those systems (parts of the IT Infrastructure asset) to be recovered as a priority, in a recovery situation.

In the event of a total loss of Auckland City’s Councils Data Centre by an event or series of events (e.g. a technical catastrophe, overheating, contamination of the environment, flooding etc) we have outlined a plan that would allow ITC to restore critical services to the business with minimum disruption.

We have considered our ability to provide this recovery service utilising the existing infrastructure and resources and thus reducing the costs whilst maximising ROI already made.

The priority services and applications in this scenario are;

- Voice Connectivity - With the Call Centre being a priority
- Network Connectivity
- Active Directory – (file access)
- Email
- G Drive – the organisations file and print data available
- Then the Cornerstone Services: Pathway, SAP, FileNet and GIS

Asset Capacity / Performance

Performance of the IT Infrastructure asset is measured using the ‘availability’ performance measure.

As demonstrated by the availability report from February 2008 included below, the IT Infrastructure generally performs to industry standards.

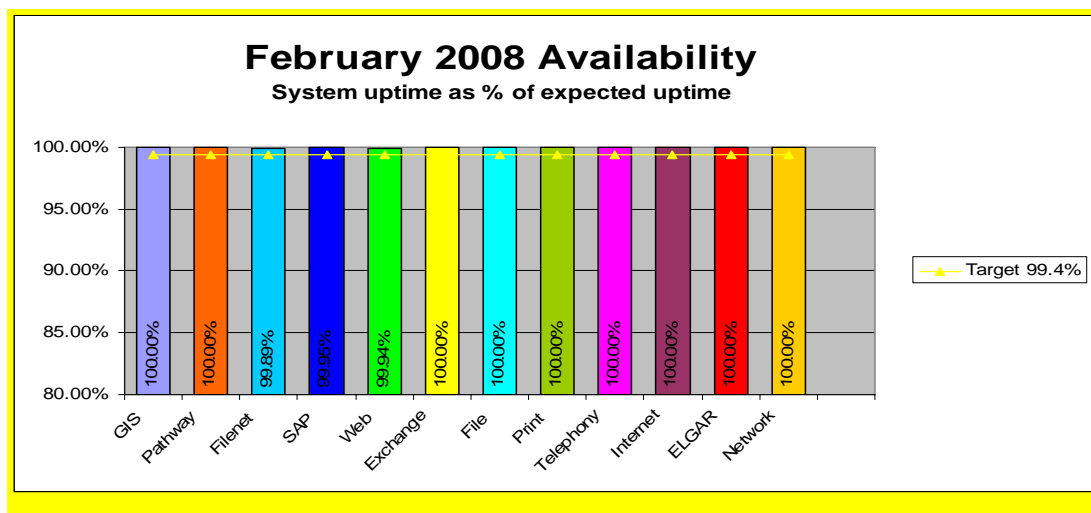


Figure 4.1.1 – Availability

Asset Condition

The IT Infrastructure asset condition is maintained in a ‘fit for purpose’ condition. The strategy used to maintain this condition is

- The IT Infrastructure assets are under warranty from the supplier, where the conditions of that warranty – replacement, fix in place etc – are appropriate for the nature of the asset
- ‘Standby’ assets are maintained, as appropriate
- The core network links have alternate routing in case of failure
- The Council follows an industry-standard back-up and recovery strategy for its applications and data
- A Business Continuity Plan is in place for the IT Infrastructure asset to ensure that single failure of an asset, multiple failures of assets and ‘restricted access to the IT Infrastructure’ does not unnecessarily constrain the business of the Council

4.2 Operational Plans

4.2.1 General Operations Plan

The IT Infrastructure asset is provided to the organisation using the following key areas of operational expenditure

- Council staff - providing various IT competencies required to operate the IT Infrastructure
- Consultants – IT competencies contracted when required
- Routine maintenance – those costs associated with maintaining the software and hardware assets in a 'fit for purpose' condition
- 'Non-asset solutions' – the assets and services provided by a third party

ITC plans to increase staff headcount during FY2008/2009 as a result of the Service Delivery Model review business case that was presented in January 2008. The ITC Business Plan for FY 2008/2009 includes additional opex funding for an additional eight positions.

4.2.2 Revenue Plan

ITC does not have any revenue attributing to or acting as a source of funding for ITC assets. Similarly, the OD Portfolio does not anticipate any such revenue.

4.2.3 Maintenance Plan

The maintenance plan for the IT Infrastructure asset includes 2 key forms of investment. They are:

- Software maintenance that is provided from the supplier for the purpose of maintaining the integrity of the software products. This include software maintenance for software in the IT Core Infrastructure asset group and software in the IT Core Applications asset group
- Extended hardware warranties that provide maintenance support for the IT Core Infrastructure hardware.

An exception to this strategy is the Microsoft Office product suite, for which no maintenance is purchased. This strategy is based on the upgrade cycle employed by the Council, which ensures the product is stable before it is implemented.

Hardware warranties (normally for 5 years) are included in the purchase price of IT Core Infrastructure hardware items, and therefore are part of the capital investment made at purchase time. Extended warranties are provided when the warranties provided at purchase time expire. Not all items in the IT Core Infrastructure asset have extended warranties – based on their use and impact on the business should failure occur.

Software maintenance is provided as regular updates and fixes to reported problems, and can be provided as unplanned maintenance should the severity of a reported problem warrant it.

ITC maintain software and hardware maintenance agreements as appropriate for the assets.

4.2.4 Asset Disposal Plan

Disposal of IT Infrastructure assets involves two processes. They are:

- The financial divestment of the asset from the asset register as part of the Council's asset management procedures at the 'end of life' of an asset
- The physical removal and transference to a disposal partner at 'end of life' of hardware assets.

The procedures regarding the divestment of assets from the asset register are part of the organisation-wide asset management strategy. These procedures apply to all assets in the IT Infrastructures. These procedures are available on request.

Hardware assets are removed and transferred to a third party disposal partner. The strategy followed by ITC is that all items from the IT Core Infrastructure asset will be disposed of to this service provider.

The disposal partner specialises in recovering components for reuse, and otherwise disposes of the items in an environmentally friendly manner. Any revenue, or costs, related to this process are accounted for using a centralised account, and not reflected in the ITC opex budget. The disposal partner guarantees the destruction of data on receipt of the item.

Other than the financial disposal of software assets, no further action is required for software assets. Software assets are, in effect, 'licences for use', and when that licence expires, no further action is required.

4.2.5 Operations Plan Summary Information

There are no known risks to the delivery of the ITC operational plans at this time.

4.3 Capital Renewal Plan

The component of the ITC capital budget defined as Capital Renewal is the funds allocated to the supply of PCs and Laptops to the organisation.

The policies that guide this expenditure are:

- PCs and Laptops are purchased from a preferred supplier
- The specification is determined by the best value-point for general purpose use
- PCs are renewed on a rolling 5-year cycle
- PCs and Laptops are purchased with Windows licences

The renewal strategy is to replace 20% of the PC assets in the organisation every financial year. New starters and other special requests may influence the implementation of this strategy month by month. An example of a special project may be the activity to reduce risk of failure in remaining CRT (Cathode Ray Technology) screens in the organisation by purchasing more flat-screen devices over a number of months.

Market-price changes and/or significant changes in staff numbers may result in deferral of the replacement strategy for periods during any one financial year, and where growth and demand exceeds the funds available due to unforeseen circumstances, ITC participates in the annual planning round.

The warranty period on PCs is 3 years. Should failures occur outside of that warranty period, a decision is made regarding whether the device should be replaced or repaired. The failure rate of PC and Laptop devices is consistent with the industry norms.

PCs and Laptops are removed at 'end of life' and transferred to a disposal partner for re-use or destruction.

The capital renewal plan is summarised in the Figure 4.3.1 below

Capital Renewal Expenditure - ITC					
	2008/09	2009/10	2010/11	2011/12	2012/13
Lifecycle Renewals	1,203	1,178	1,178	1,178	1,178

Figure 4.3.1. – Capital Renewal Expenditure - ITC

Source – Auckland City Council Annual Plan, Plan Version 18, July 2009

5 Sustainability Summary

The Council has set-out its sustainability objectives in a document called Keeping Auckland's Future Bright.

The IT industry produces 2% of global CO2 emissions. This is equivalent to the airline industry.

ITC continues to research the impact of IT on sustainability and currently has a number of initiatives underway to address sustainability.

5.1 Sustainability – a summary

The Council is committed to guiding Auckland toward a more sustainable future, a future in which Aucklanders live in a high quality built environment, where green spaces and natural habitat are valued and protected, and where communities and business can thrive. The Council's commitment to sustainability is set out in the document Keeping Auckland's Future Bright.

The sustainability goals for Auckland include:

- Auckland City Council will lead by example on sustainability management.
- Auckland City Council will make it easier for the people, communities and cultures of Auckland to make sustainable choices
- Auckland City Council will reduce the city's environmental footprint and nurture a healthy urban ecosystem.
- Auckland City Council will facilitate sustainable urban and economic development of the city, including sustainable transport.

To achieve these goals, specific targets (along with dates to reach each target) have been determined and are presented within the draft document. The targets include organisational targets and city-wide targets:

Organisational targets

- complete an organisation wide energy audit and then achieve a 10 per cent reduction in total energy consumption (by 2011)
- achieve a 20 per cent reduction in waste to landfill (by 2011)
- All new council buildings and major refits will follow the principles of achieving a minimum 5-star Green Star rating, or equivalent (by 2008)

City wide targets

- achieve a demonstrable reduction in total greenhouse gas emissions (by 2011)
- achieve a demonstrable reduction in waste per capita to landfill (by 2011)
- Vigorously promote the provision of more sustainable buildings and developments (now and ongoing)

As part of ITC's on-going research into the sustainability impact of IT, ITC recently attended a Gartner symposium, ITxpo. An extract of the Gartner research delivered at the symposium follows, which sets out the current state, current issues to be addressed and actions that can be used to improve the role IT can play in an organisation's sustainability objectives.

5.2 The current state

The IT industry produces 2% of global CO2 emissions, from the use of PCs, servers, cooling, data centre uninterrupted power systems, fixed and mobile telephony, networks, printers and disk storage. This is equivalent to the airline industry.

Gartner refers to the European Commission report of 2004 entitled 'The Future Impact of ICT in Environmental Sustainability' when it describes three orders of impact:

- The first order – where attention is focused at the moment – of impact is on Greenhouse Gas (GHG) emissions, contamination during asset lifecycle and the use of non-renewable resources
- The second order of impact – less well understood – includes the positive impacts of reducing the environmental impact (and cost) of business operations, products and services. Examples include travel substitution, optimisation of transport and e-business solutions
- The third order of impact – for which little is known and that will require policy change to implement – is through the positive changes to material, energy and transportation intensity brought about by long-term socio-economic structural changes.

5.3 Issues to be faced

The symposium identified two issues that can be faced immediately by organizations. They include:

- Changing behaviours regarding the use of personal IT equipment – desktops and other client devices
- Of the worldwide PC disposals (160 million in 2007) only 41% are recycled. Electrical and electronic components are not biodegradable.

5.4 Suggested actions

The actions that Gartner suggest staff responsible for IT in an organisation should take to address sustainability issues include:

- Taking a leadership role in an organisation's environmental objectives and Corporate and Social Responsibility (CSR) policies
- Measuring the environmental impact of IT so that improvements can be measured
- Educating the workforce – fixing the negative impacts of IT requires the engagement of employees
- Change habits – the default 'after hours' setting for IT equipment should be 'off'
- Implementing technology improvements, including
 - Virtualisation technologies that increase utilisation and reduce power usage
 - Management software that can be used to restart servers when required
 - Managing resources for peak usage
 - Moving from 'always on' to 'always available'
 - Implementing improved cooling technology – water is a better coolant than air
 - Consolidating to multi-function printing (MFD) devices
- Implementing 'green' procurement policies including
 - 'weighting' of procurement decisions to vendors who are 'carbon footprint' standards driven
 - negotiating packing for supply of goods
- measuring and auditing for improvements to current disposal procedures

5.5 ITC actions

ITC have a number of initiatives underway to improve sustainability. They include:

- A 'Green IT' initiative as part of its current business plan
- The use of a business partner to dispose of assets for re-use or destruction in an environmentally friendly manner
- Continuing research into sustainability, similar to that reflected in the Gartner research
- Vendor supply reviews, which increasingly include sustainability criteria - an example of which is the recent review of printing equipment for the organization, which included recognition of the benefit of implementing MFD printing facilities
- The continued implementation of new technologies to increase device utilisation and to reduce power usage

6 Financial Summary

The nature of the OD Portfolio is to improve organisation wide processes and systems. The identified solutions often have an impact on IT functions with the possibility of ongoing maintenance and resource requirement.

For the completeness of the overview of the organisation asset requirements the OD Portfolio has been highlighted within the ITC asset management plan. Projects under this portfolio will often generate savings and efficiencies across the organisation thereby contributing to building a more efficient and capable council.

For ITC the major forecasted capital expenditure relates to upgrades of AMIS of \$0.9 million in 2009/10, Pathway upgrade of \$10 million in 2011/12 and desktop upgrade of \$2.5 million in 2012/13 and 2013/14.

For the OD Portfolio, the major capital expenditure relates to the Customer Services Excellence project, estimated to cost \$26.3 million over four years.

The following financial information outlines the operational and capital expenditure forecasts for ITC from section 6.1 to section 6.5. The OD Portfolio financial forecasts are outlined from section 6.6 to 6.10.

ITC Financial Forecasts

6.1 Summary of Financial Information - ITC

Financial Overview

The 10-year financial forecast overview for ITC is summarised in Figure 6.1.1. The significant changes for ITC are:

- The capital forecast increases significantly in financial year 2011/12 to \$15.3 million as upgrade of the Pathway system is expected and estimated to cost \$10 million.
- Lifecycle upgrades for AMIS and desktops are forecasted in years 2009/10, 2012/13 to 2013/14 respectively. The estimated capital requirement for these step changes are \$0.9 million for AMIS and \$2.5 million for desktops.
- The operational expenditure forecast in Figure 6.1.1 comprises of maintenance costs for software and hardware, approximately \$2.3 million per annum, as well as council calculated depreciation.

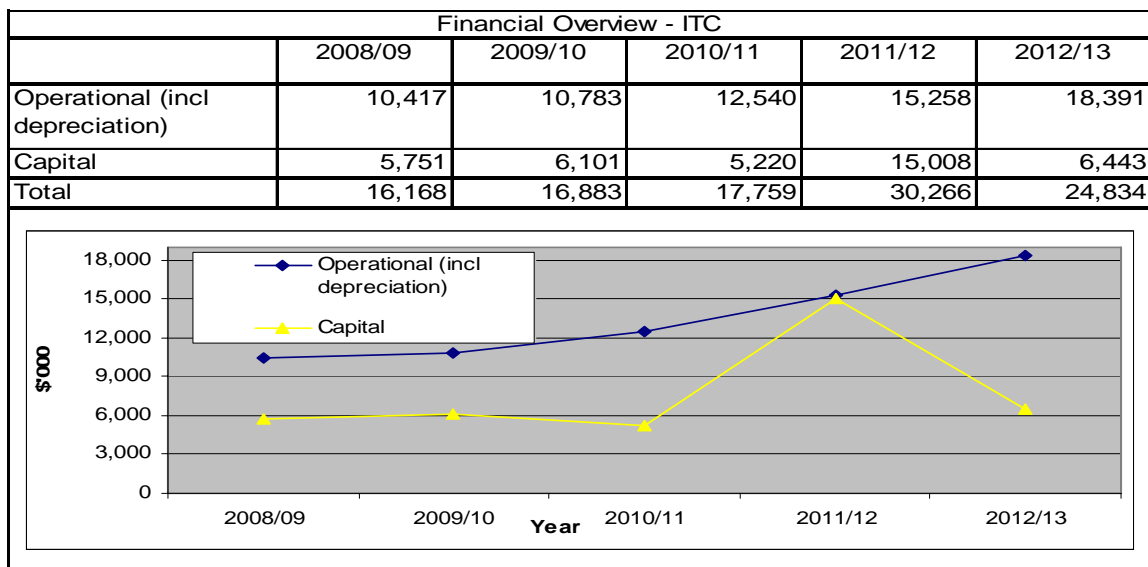


Figure 6.1.1 – Financial Overview - ITC

Source – Auckland City Council Annual Plan, Plan Version 18, July 2009

6.2 Operational Expenditure Summary - ITC

Operational Costs

The 10-year financial operating forecast for ITC is summarised in Figure 6.2.1 and detailed in Figure 6.2.2. Consideration should be given to the fact that:

- The council calculates depreciation, for assets resulting from lifecycle renewal, based on a straight line method over a five year life assumption.
- The operating expenditure is consequential maintenance relating to areas of core infrastructure, desktop replacements and core applications.
- There may be some consequential operating expenditure as an outcome of organisational development projects under the OD Portfolio impacting on ITC. Generally, these will also be covered within ITC's current maintenance plan of the cornerstone systems.
- The detail of ITC's consequential operational expenditure is outlined in sections below and Figure 6.2.2.

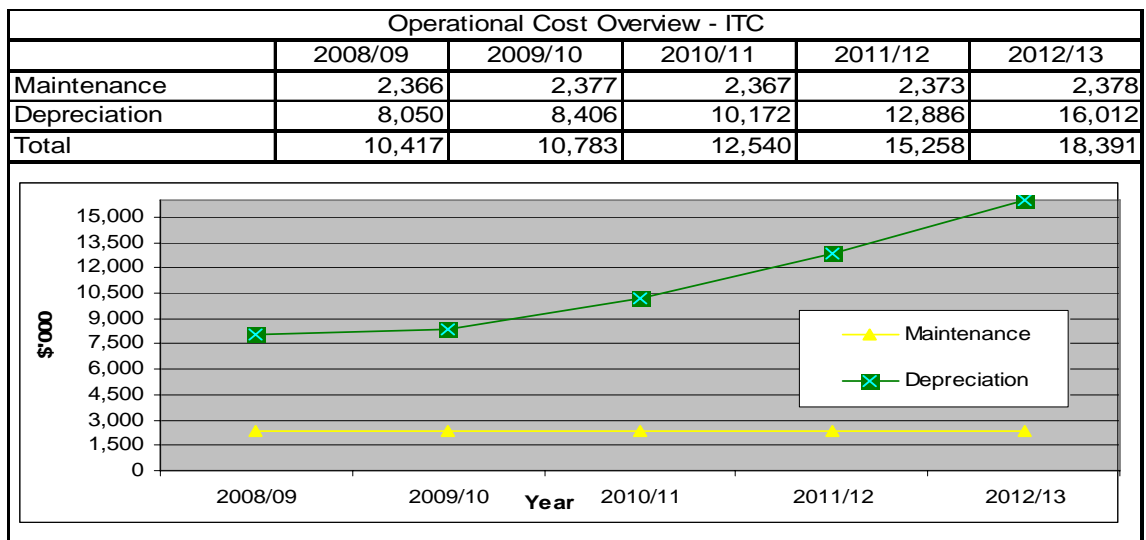


Figure 6.2.1 – Operational Costs Financial Overview – ITC

Source – Auckland City Council Annual Plan, Plan Version 18, July 2009

Consequential Operational Cost Estimate

The consequential operating costs for ITC are outlined in Figure 6.2.2. There are no significant changes to the plan as:

- The planned consequential operating expenditure relates to lifecycle upgrades in the categories of core infrastructure, desktop replacements and core applications.
- The forecast are for maintenance costs in the areas listed above and are in two key forms - software and hardware maintenance. The software maintenance ensures supplier maintenance of integrity of software products and relates to software in the IT core infrastructure and core application asset group. The hardware maintenance is in the form of extended hardware warranties for maintenance support for IT core infrastructure hardware.
- The consequential operating expenditure for OD Portfolio is not included in the plan. Any new systems or products resulting from the OD Portfolio do not necessarily require additional maintenance costs to the current plan in IT. Often these projects generate organisation wide savings and efficiencies which can be somewhat offset against any possible consequential operating expenditure.

Section 6 – Financial Summary

- The risk of not forecasting consequential operating expenditure for OD Portfolio - potential staff resources required in ITC for support and maintenance of any new product/ system is not planned. The assumption is that for projects where an ongoing resource is required, above ITC's current approved staff establishment, the project business case will outline the need for such resources and allocate budget to ITC accordingly. OD Portfolio is discussed further in section 6.6 of this document.

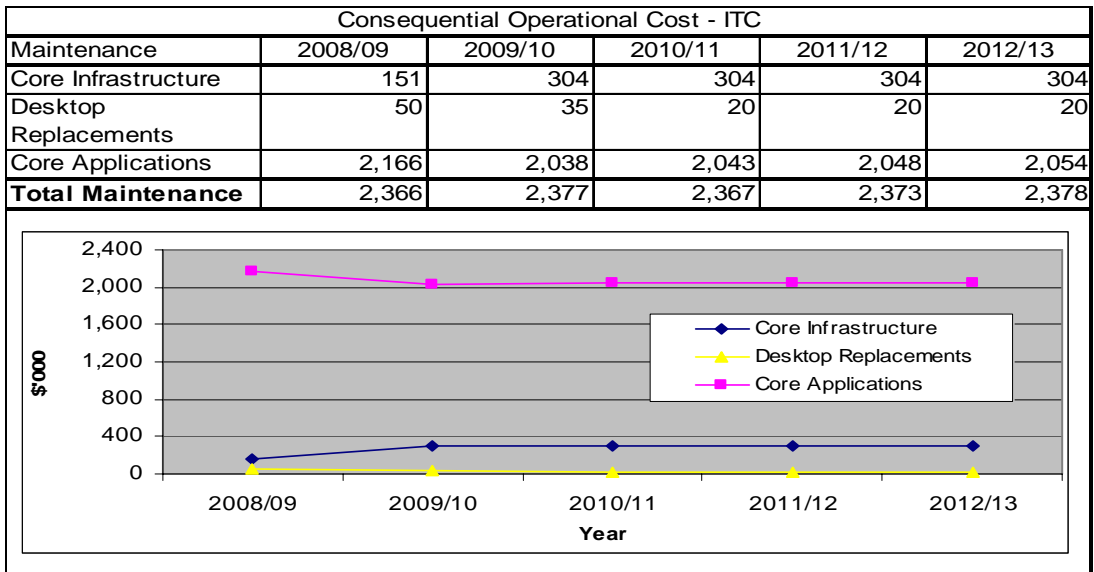


Figure 6.2.2 – Consequential Operational Cost Overview - ITC

Source – Auckland City Council Annual Plan, Plan Version 18 July 2009

6.3 Capital Expenditure Summary - ITC

Capital Expenditure Overview

The 10-year capital forecast for ITC is summarised in Figure 6.3.1 and the significant changes are:

- The renewal forecast remains constant at \$1.178 million per annum for the period of this plan and is sufficient to maintain asset service potential.
- The forecast for new works service level improvements includes the predicted asset upgrades over various financial years. This major planned activities are AMIS upgrade expected in 2009/10 forecasted to cost \$0.9 million, Pathway upgrade expected in 2011/12 forecasted to cost \$10 million and desktop upgrades in 2012/13 & 2013/14 forecasted to cost \$2.5 million over the two years. The upgrades are detailed later in this section and in Figure 6.3.2.

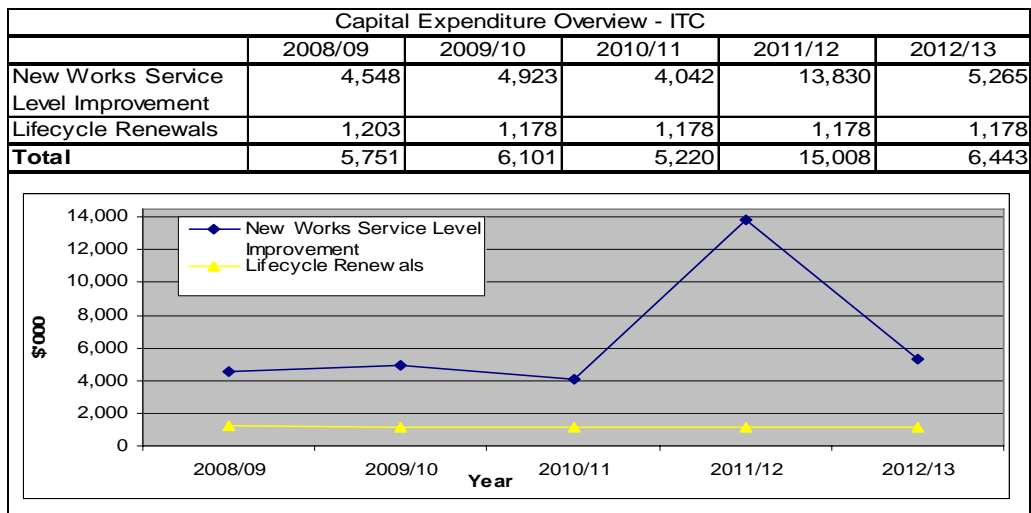


Figure 6.3.1 – Capital Expenditure Overview - ITC

Source – Auckland City Council Annual Plan, Plan Version 18, July 2009

Capital Renewal Expenditure Requirements

The comparison between ITC's renewal expenditure and depreciation is summarised in Figure 6.3.2.

- As per policies and standard practice within the council, depreciation is modelled using the work in progress balance of these capital projects with assumption that 40 percent of this balance will be settled and be subject to depreciation.
- The depreciation is calculated using straight line method and assets are assumed to have a life of five years.
- The lifecycle renewals remain at \$1.178 million over the period of this plan and encompass purchase of PCs and laptops.
- The renewal strategy is to replace 20 percent of the PC assets in the organisation every financial year. The PCs are renewed on a rolling five-year cycle.

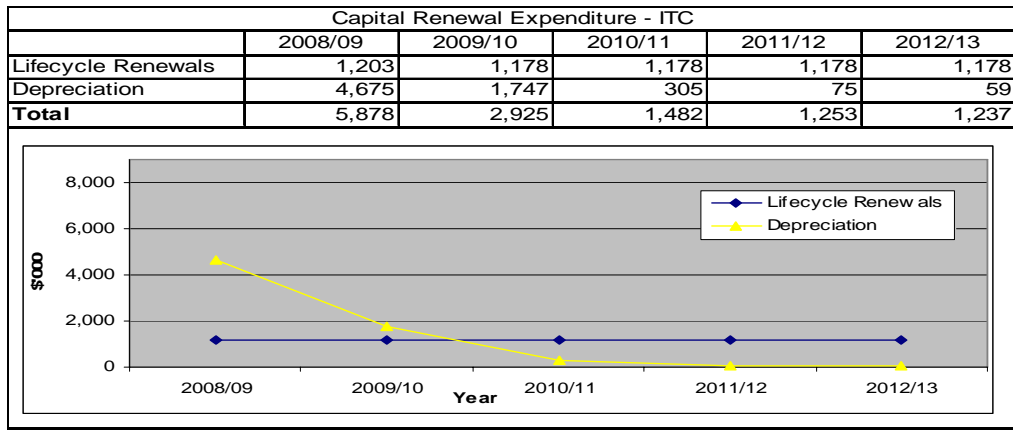


Figure 6.3.2 – Capital Renewal Expenditure & Depreciation - ITC

Source – Auckland City Council Annual Plan, Plan Version 18, July 2009

Capital New Works Expenditure Prediction

The forecast for ITC’s new works service level improvements (Figure 6.3.3) includes the predicted upgrades over various financial years such as:

- AMIS upgrade is expected in 2009/10 and forecasted to cost \$0.9 million. The spatial component of the asset management process is managed in GE Smallworld. This system will be retired and functionality transferred to ARCGIS/ SAP. This functionality is critical to the efficient lifecycle management of the council’s infrastructure assets.
- Pathway upgrade is expected in 2011/12 and forecasted to cost \$10 million. Pathway manages core council functions and retirement of the system is predicted to occur in the next three years. Vendor support is likely to cease and lifecycle replacement will be required.
- The next planned desktop upgrade is in 2012/13 & 2013/14 and forecasted to cost \$2.5 million over the two years. The upgrade will include changes to the operating system and office automation and is essential to provide an efficient workplace technology suite.

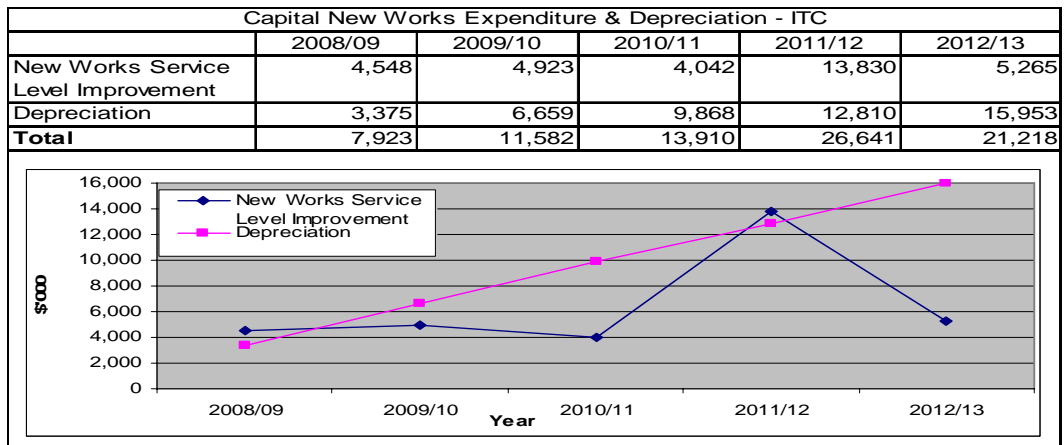


Figure 6.3.3 – Capital New Works Expenditure Prediction - ITC

Source – Auckland City Council Annual Plan, Plan Version 18, July 2009

6.4 Funding Strategy and Financial Sustainability - ITC

Capital expenditure and operational expenditure (including depreciation) for IT are funded by general rates and outlined in Figure 6.4.1.

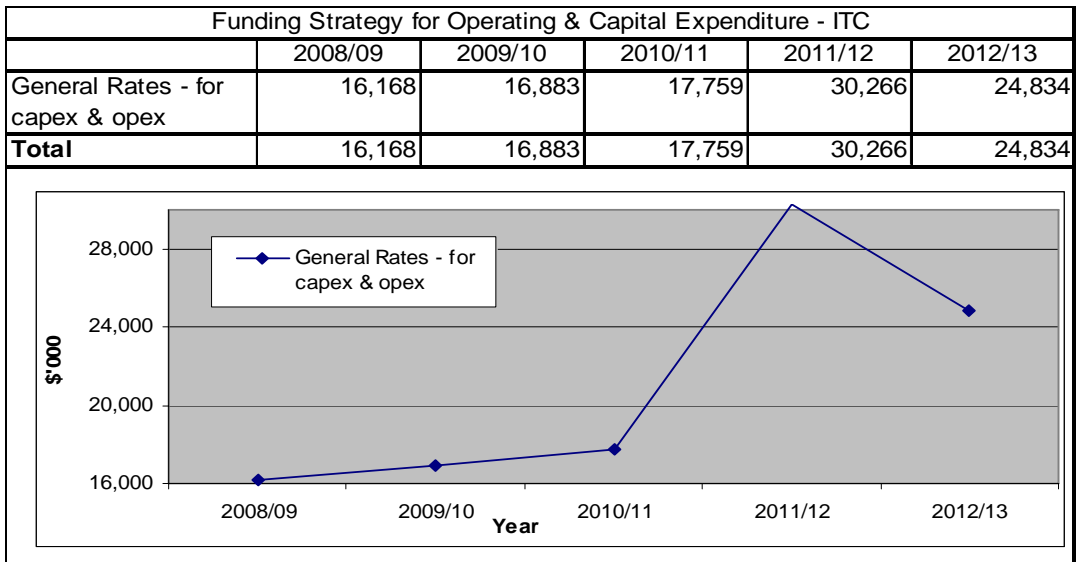


Figure 6.4.1 – Capital New Works Expenditure Prediction - ITC

Source – Auckland City Council Annual Plan, Plan Version 18, July 2009

6.5 Asset Valuation - ITC

The IT computer assets in the council’s fixed asset register are categorised into two asset classes – computer equipment and computer software. Figure 6.5.1 outlines the acquisition and current book value of these assets. As at 30 June 2008 the council’s register holds:

- Computer hardware assets with book value of \$4.8 million and computer software assets with book value of \$ 7.9 million.
- The hardware equipment are considered consumables and for depreciation purposes are assumed to have a useful life of five years.
- The council’s policy calculates depreciation on these assets using a straight-line method over the assumed five-year life of the asset.

Asset Net Book Value - ITC				
Asset Class Code	Asset Class Description	Acquisition Value	Accumulated Depreciation	Book Value
4000	Computer Equipment	24,865	19,990	4,874
8800	Computer Software	40,394	32,585	7,808
	Total	65,258	52,576	12,683

Figure 6.5.1 – Asset Net Book Value - ITC

Source – Auckland City Council Asset Balance as at 30 June 2008

OD Portfolio Financial Forecasts

6.6 Summary of Financial Information – OD Portfolio

Financial Overview

The 10-year financial forecast overview for OD Portfolio is summarised in Figure 6.6.1 The significant changes are:

- The capital requirement forecast between financial years 2009/10 to 2012/13 is \$38.9 million. The key projects planned during this period are the Customer First and Finance Roadmap programmes.
- Operating expenditure prediction ranges from \$5 million in 2008/2009 to \$3.2 million in 2018/19. The plan includes key projects such as the Customer First and Finance Roadmap programmes.
- Consequential operating expenditure arising from projects under OD Portfolio is largely covered within ITC’s existing maintenance plan.

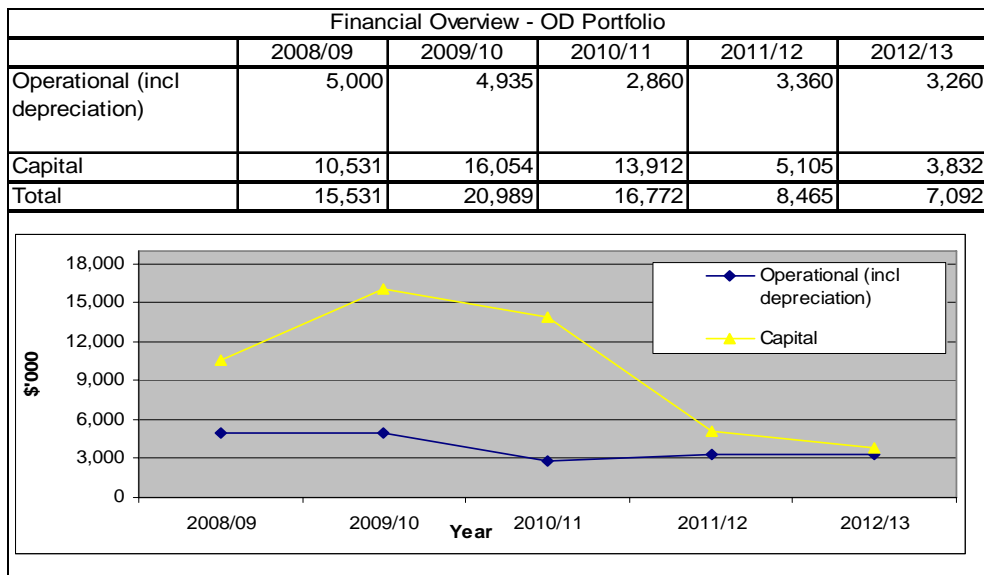


Figure 6.6.1 – Financial Overview – OD Portfolio

Source – Auckland City Council Annual Plan, Plan Version 18, July 2009

6.7 Operational Expenditure Summary – OD Portfolio

Operational Costs

The 10-year operating expenditure forecast for OD Portfolio is detailed in Figure 6.7.1 followed by a discussion on related consequential operating expenditure. The significant changes to OD Portfolio are:

- The operational requirement forecasted between financial years 2009/10 to 2012/13 range from \$5 million to \$3 million. The increase is due to the key projects planned during this period - Customer First and Finance Roadmap programmes.
- The allocation of the annual balance of the funds are yet to be determined as this relies on creation and approval of business cases for each project.
- Consequential operating expenditure arising from projects under the OD Portfolio has not been forecasted, because the actual IT solutions are not yet known. These projects do not always result in a new system or product that requires maintenance outside of ITC’s current plan.

- The nature of the OD Portfolio is to improve the processes and systems council wide thereby contributing to building a more efficient and capable council. Projects under this portfolio will often generate savings and efficiencies across the organisation thereby compensating any consequential operating expenditure.

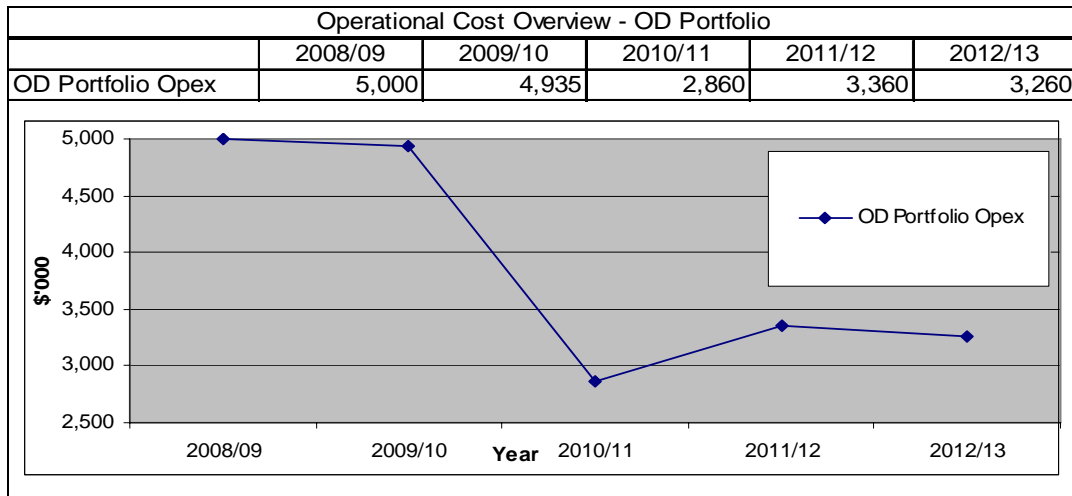


Figure 6.7.1 – Operational Cost Overview – OD Portfolio

Source – Auckland City Council Annual Plan, Plan Version 18, July 2009

Consequential Operational Costs Estimate

The consequential operating costs for OD Portfolio is dependent on the solution adopted per project and these solutions are normally upgrades on existing structures. The consequential operating costs arising from OD Portfolio have not been forecasted as:

- The aim to improve systems and processes via projects under this portfolio requires various IT elements and input such as staff expertise. However, the solutions do not always eventuate in the installation of a new system or a product that requires ongoing maintenance in addition to the already existing maintenance plan in IT.
- The nature of the OD Portfolio is to improve the processes and systems council wide thereby contributing to building a more efficient and capable council. Projects under this portfolio will often generate savings and efficiencies across the organisation thereby compensating any risk of consequential operating expenditure. However, where the implementation of technical systems is concerned, it is likely that additional IT support staff will be required. These will be recognised in the business case for each project of work.

6.8 Capital Expenditure Summary – OD Portfolio

Capital Expenditure Overview

The 10-year capital forecast for OD Portfolio is summarised in Figure 6.8.1 and all relate to new works service level improvements. The significant points to note are:

- The capital requirement forecast between financial years 2009/10 to 2012/13 range is \$38.9 million. The key projects planned during this period are the Customer First and Finance Roadmap programmes.
- The allocation of the annual balance of the funds are yet to be determined as this relies firstly on the creation and approval of business cases.

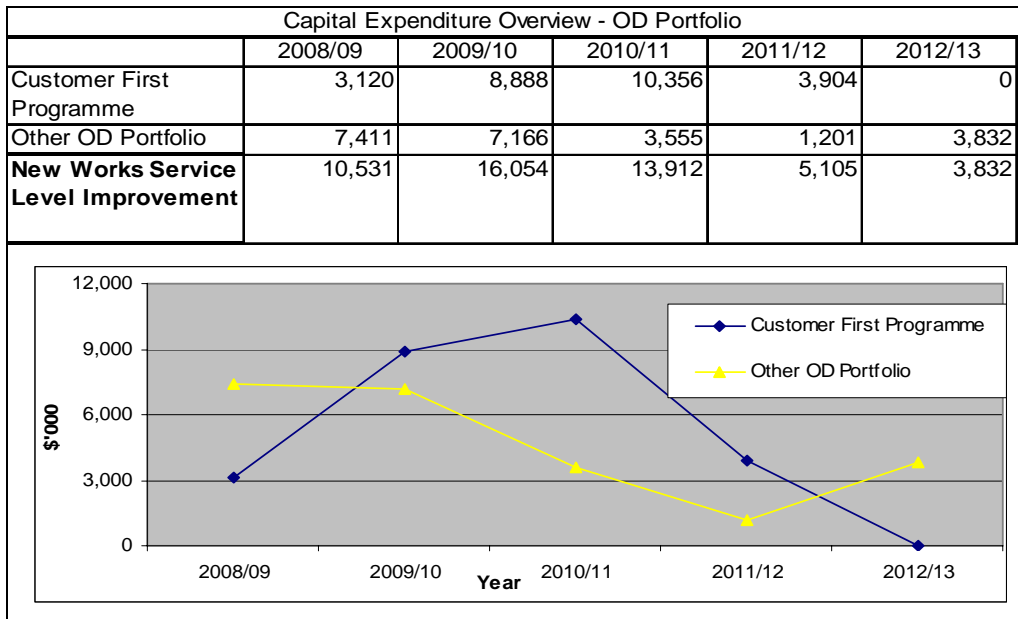


Figure 6.8.1 – Capital Expenditure Overview – OD Portfolio

Source – Auckland City Council Annual Plan, Plan Version 18, July 2009

6.9 Funding Strategy – OD Portfolio

Capital and operational expenditure for OD are funded by general rates and outlined in Figure 6.9.1

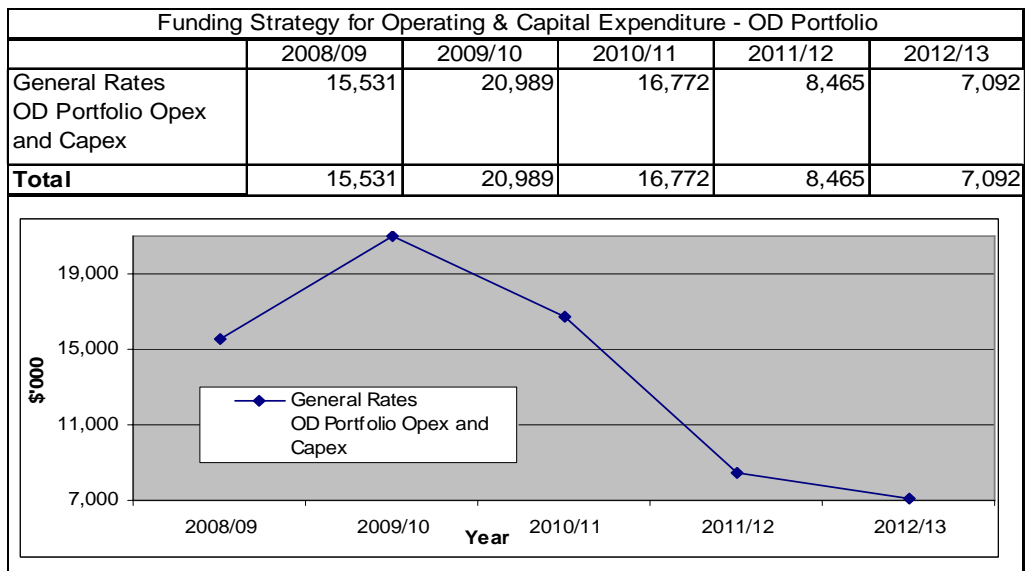


Figure 6.9.1 – Funding Strategy for Operating and Capital Expenditure – OD Portfolio

Source – Auckland City Council Annual Plan, Plan Version 18, July 2009

6.10 Asset Valuation – OD Portfolio

The assets generated from projects in the OD Portfolio tend to be classed as IT. The book value of hardware and software asset classes as per the council's asset register has been represented in section 6.5 and Figure 6.5.1 above.

6.11 Significance Policy

This policy sets out how Auckland City determines the significance of its proposals and decisions. This policy is a requirement of the Local Government Act 2002. The full significance policy is available in the 2006 – 16 LTCCP.

Policy on Significance - Determining significance

For each decision that Auckland City makes, an assessment must be made of that decision's likely significance.

Auckland City considers a range of factors when determining how significant a proposal is, including the proposal's likely impact on, and likely consequences for:

- the current and future social, economic, environmental, or cultural well-being of the district or region
- any people who are likely to be particularly affected by, or interested in, the issue, proposal, decision or matter
- the capacity of Auckland City to perform its role, and the financial and other costs of doing so.

Proposals that Auckland City considers to be at the higher end of the significance continuum (ie significant) include:

- any decision to transfer the ownership of a strategic asset to or from the organisation
- any decision to construct, replace or abandon a strategic asset
- any decision to alter significantly the intended level of service provision for any significant activity undertaken by or on behalf of the organisation, including a decision to commence or cease any such activity
- any decision that will, directly or indirectly, significantly affect the capacity of the organisation or the cost to the

Policy on Significance - Strategic assets

Under section 90(2) of the Local Government Act 2002, Auckland City is required to identify its strategic assets. Council defines the network of a strategic asset as the whole of the asset group rather than a single example of the asset as listed

6.12 Financial Assumptions, Notes and Risks

The asset management plan financial forecasts does not account for any major changes in population and any related costs arising.

The asset management plan financial forecasts are net of inflation. The LTCCP adjusts for inflation however, there is an inherent risk particularly as some sectors costs increase above the level of inflation.

The funding for the capital expenditure for ITC are provided by general rates and is not subject any other subsidies.

7 Risk Summary

The Council recognises that IT is central to its operation and the services it provides to its customers. For this reason, ITC is risk adverse, and employs a number of industry best practices to monitor and maintain the performance and condition of the IT Infrastructure asset.

A financial risk has been identified during the development of this plan

7.1 Summary of Risks identified in the AMP

A risk for the organisation is the inability to provide normal levels of service because of failure of the IT Infrastructure asset

The CIO, Ian Rae, recently stated when reflecting on ITC's role in the organisation, 'Today it is very difficult to do business without information technology. Such is the rapid uptake of new information technologies worldwide, that those of us charged with providing them have an increasingly challenging role.'

ITC constantly monitors the availability of the IT Infrastructure asset – see section 4.1 – as the measure of performance of the asset and the maintains the condition of the asset with a number of industry standard procedures.

To further mitigate this risk, ITC has developed a Disaster Recovery Plan that links into the Business Continuity Planning undertaken under the auspices of the Council's Crisis Management Plan.

ITC's Business Continuity Plan is made available to the Council to enable business groups to develop their Business Continuity Plans with the knowledge of the priority by which ITC will return systems in the IT Infrastructure to service in the case of a multi-system failure and the timeframes in the case of a single system failure. This is the linkage between the Council's business continuity planning, ITC's Business Continuity Plan and ITC's Disaster Recovery Plan.

An extract from the General Information section of the ITC Disaster Recovery Plan (version Feb 2008) describes the contents of the plan

The purpose of this plan is to:

- Outline the strategy used for the formation of this Disaster Recovery Plan
- Assist ITC in the restoration of key IT Services and business processes to agreed levels within the agreed timeframes following a major disruption
- Publish a "Baseline" of the priority IT services, their restoration priorities and restoration time frames as seen by ITC following a major disruption
- Provide guidelines to ITC for the initial response to a failure or disruption that prevents Auckland City Council from operating 'Business As Usual' (BAU)
- Enable the sustained execution of identified processes in the event of a major disruption
- Identify functions, roles and responsibilities of the Crisis Management Team, ITC DR Management and recovery teams
- Assist ITC in the management of risk following an IT Service failure or disruption

Ownership of the ITC DR/BCP rests with the Chief Information Officer (CIO), but is under the management of the ITC Facilities Manager

The ITC DR Co-ordinator is responsible for maintenance and change control of the plan and ensuring consistency with other Auckland City Council business groups BCP documents. This plan covers five selected scenarios:

- Single Service or System failure
- Multiple Services or Systems failure (concurrently)
- Total loss of the Data Centre Services (and its facilities)
- Total devastation of the Auckland Isthmus (e.g. volcanic eruption, tsunami, earthquake, significant loss of life)
- Pandemic Management: ITC's proposed service offering during a pandemic

7.2 Linkage to the Corporate Risk Management Framework

This Asset Management Plan includes one risk that has been included in the consolidated risk register that is part of the Corporate Risk Management Framework

7.3 Summary of Risks identified in the AMP

ITC recognises the risk to the Council posed by the inability to provide normal levels of services because of failure of the IT Infrastructure. For this reason, ITC manages a Disaster Recovery Plan that provides a linkage through the ITC Business Continuity Plan to the Council's Crisis Management Planning.

The ITC Disaster Recovery Plan identifies critical systems – this table is included as Appendix 6 of this plan.

ITC's plans to test the Disaster Recovery Plan form part of the Improvement Plan described in chapter 9 of this plan

The development of the IT AMP has identified one financial risk. This risk is recorded in the Corporate risk register.

In summary, a risk exists that a compelling business case for the deployment of the next version of the Windows OS significantly before the planned deployment in FY13 would incur an additional renewal charge. A more detailed description of the risk is included in Appendix 1.

8 Asset Management Practices

ITC is responsible for the management of assets in the IT Infrastructure.

The primary activities that ITC undertake to manage the IT Infrastructure asset are asset maintenance, asset renewal and service level improvement. The capital works programme is planned annually as part of the long-term council community plan and the annual planning process.

IT Infrastructure assets are stored in the asset accounting module of SAP, which links to the detailed information contained in equipment records in the Plant Maintenance module of SAP.

The July 2007 Risk and Assurance audit of the ITC asset register made recommendations for enhancement of the management of IT Infrastructure assets and the actions that result from these recommendations are under development.

ITC has defined clear roles and responsibilities for the management assets in the IT Infrastructure.

8.1 IT Infrastructure Asset Management Practice Introduction

This chapter sets out the asset management systems and practices used by ITC to maintain its inventory of IT Infrastructure assets and to define its operational and capital expenditure requirements.

ITC's work programmes for assets in the IT Infrastructure include routine maintenance, capital renewal and service level improvements. The characteristics of the types of work is set out below

- asset maintenance
 - the regular application of software maintenance from the vendor to maintain the software asset in an error free condition
 - can be pre-planned or in response to a reported error
 - maintains the integrity of the software and hardware with no change to the asset
- asset renewal
 - renews assets at 'end of life' using the commonly accepted industry standards
 - replaces existing assets
 - maintains the current levels of service
- service level improvement
 - capital works that improve the service level provided by the IT Infrastructure asset
 - ITC defines the service level improvements as
 - **performance** – the incremental investment in IT Infrastructure to ensure optimum availability, reliability and responsiveness. An example of this may be the investment in network software and hardware to support more bandwidth to the desktop
 - **capacity** – the incremental investment in software and hardware to meet the growth and demand of customers – an example of this may be the need for new disk storage to support increased structured and unstructured data in the organisation
 - **version upgrade** – the implementation of software to retain currency, supportability and compatibility. An example of this is the migration from SAP R3 to SAP ECC6
 - **expansion/leverage** - add new functional capability to an existing system. An example of this is the addition of Electronic Records Management capability on Filenet.
 - **Lifecycle Replacement/step change** – the redevelopment of a system and the 'end of life' replacement of hardware. Examples of this are the replacement of Pathway, planned for FY12.

The following table sets out the items expensed and capitalised in relation to the planned work

Expensed (operating budget)	Capitalised (capital expenditure budget)
<ul style="list-style-type: none"> Planned and unplanned maintenance Concept and preliminary design for service level improvements 	<ul style="list-style-type: none"> Purchase on new or renewal IT hardware and software assets Development and implementation of service level improvements

Table 8.1.1 – Expensed and Capitalised

The capital work programme is planned annually as part of the long-term council community plan and annual plan process.

ITC defined hardware assets during the 2007/2008 upgrade of its asset management practices – as contained in the following extract

The definition of an IT hardware asset required to be stored as an ITC asset in the Asset Accounting module of SAP is:

IT equipment purchased using an ITC capital budget code where the total cost of the equipment and related costs is over \$1,000

The notes relating to this definition are:

- The value of an asset must include the cost of equipment and services related to the deployment of that asset e.g. it will contain freight and other related costs (carry bag, docking station etc).
- only assets purchased using an ITC capital budget code will be stored as an IT hardware asset
- Multiple equipment items can be grouped together to form one asset if they are for like-equipment e.g. 50 PCs (same model, same price) purchased on one purchase order.
- assets with a total cost of the equipment and services of \$1,000 or greater will be capitalised

Current systems and practices are summarised in this chapter into three areas of activity

- Information systems – the information systems used to store and manipulate data
- Data and information – the data available to produce the required outputs
- Processes – the processes and analysis used for life-cycle management

8.2 Asset Management Systems

IT Infrastructure assets are stored in the Asset Accounting module of SAP – as the prime register of assets, depreciation and IFRS valuations – and the Plant Maintenance module of SAP.

The items in the Plant Maintenance module – commonly known as Equipment records – contain specific information on each asset item – serial number, location etc.

Assets are created and capitalised when they are received ('goods receipt') onto the organisation, asset maintenance is performed throughout the deployment of the asset and they are disposed of at 'end of life'.

Because of recommendations made in the July 2007 Risk and Assurance Audit on IT hardware assets, ITC are currently developing small SAP system changes to 'link' asset records and equipment records. This development will provide a logical 'single view' of the asset and enable enhanced management of IT assets for reporting purposes.

8.3 Asset Management Data

The current independent assessment of the IT Infrastructure asset data is contained in the July 2007 Risk and Assurance Audit report. This report specifically 'did not look at software registers or look at controls associated with software, licensing currency etc'.

In late 2007, ITC developed a work program to address the recommendations made in the audit report. The work program is set-out in the following table, which is an extract from the Business Design Specification document specifying the developments to be undertaken.

Process Type	#	Change	Description
Business	1	Develop ITC Asset Operations Guide	
	2	Define an asset	Chapter in Operations Guide – rules for the creation of an asset
	3	Create an asset	Chapter in Operations Guide – new design for creating assets and equipment records and which creates database link
	4	Include new equipment types	Design for creation of equipment records for screens and servers
	5	Store paper forms	Chapter in Operations Guide – what paper forms are stored for audit purposes
	6	Misplaced/stolen assets	Chapter in Operations Guide – new procedure for misplaced and stolen assets
	7	Monthly Asset Reconciliation	Chapter in Operations Guide – new reconciliation process
Reports	1	Report design	Reporting required to perform reconciliation
System	1	Create database linkage	Use of 'asset' field to link asset and equipment records to improve reporting
	2	Configuration changes for servers and screens	SAP configuration changes to support new equipment types
Notes	1	Notes of activities where no immediate action is to be taken	Plans for future remote validation and additional fields in the .csv file
'Cleanup'	1	Dispose of obsolete assets	Description of ITC's plans to dispose of obsolete assets – not within scope of business design

Table 8.3.1 – 2007 Audit review program of work

The audit report contains the statement of confidence and quality of the IT Infrastructure asset data, and identifies the enhancements required. The internal control evaluation of the ITC asset register is 'inadequate'. The developments that result from the audit are underway in March 2008.

8.4 Asset management Processes

The key information flows for IT Infrastructure assets are included in the following table

Asset Lifecycle phase	AM activity	AM information flow
Plan	IT Infrastructure Plan, IT Capacity Plan, Project plans	None
Acquire	Purchase order	None
Receive/Deploy	Create asset and equipment records	Asset Record and related Equipment records created
	Depreciate	Capitalise asset in SAP asset accounting
Operate	Maintain	Maintain equipment records with current data – location etc
Improve	Revalue	Revalue asset
	Renew	Add new assets
Retire	Dispose	Divestment of asset, mark Equipment record as 'disposed'

Table 8.4.1 – Asset management processes

All proposed IT Infrastructure asset investments must satisfy the constraints and requirements of the IT Strategic Plan, the ITC Infrastructure Plan and IT capacity plans, be subject to peer review and have funding approval.

ITC sets out its Routine maintenance, Service Level improvements and Capital Renewal expenditure during its annual planning process.

8.5 AM Organisation

The roles and responsibilities for the management of the IT Infrastructure asset are

- CIO – primary responsibility for management and planning of IT Infrastructure assets on behalf of the ITC group
- ITC Strategic Architect – direct responsibility for asset planning for the group
- ITC Facilities – responsible for:
 - Asset procurement
 - Asset deployment
 - Asset maintenance
 - Asset disposal

This plan has been developed under the auspices of the Corporate Finance and Planning and to meet the objective (to quote the Asset Planning Group) that:

Asset Management Plans (AMPs) are key planning documents for our 2009/10-2018/19 Long Term Council Community Plan (LTCCP). The aim is to have the best asset management plans in New Zealand which:

- Demonstrate good stewardship of our community assets
- Provide the rationale for our capital and maintenance plans
- Articulate the way council intends to meet and measure our customer levels of service
- Determine the capital and maintenance requirements resulting from changes in relevant growth and demand factors.

9 Striving for Excellence

This chapter includes an improvement plan, which is the result of reviews that have taken place on this plan.

9.1 AMP Framework Improvement

The IT asset management plan draft at the end of March was reviewed by the national asset Management Steering (NAMS) group and was assessed as five out of ten.

The reviewers characterised the IT asset management plan as a 1st generation plan, but recognised it as a milestone because ‘few local government organisations in New Zealand have produced such a plan’.

9.2 Improvement Plan

The improvement plan for the IT AMP includes the following activities

Task	AMP Chapter	Description	Resources required	Status
1	Chapter 1	Research and describe possible negative effects of IT from a customer perspective	IT AMP owner	Planned for next version
2	Chapter 1	Include the ITC linkages into the Council Asset Management Planning Process Framework	IT AMP owner	Planned for next version
3	Chapter 2	Link legislative requirements to Level of Service statements	IT AMP owner	Planned for next version
4	Chapter 2	Research, develop, implement and describe the ITC Level of Service assessment and decision making process	IT AMP owner	Planned for next version
5	Chapter 2	Research, develop and implement improvement strategies for gaps in service provision levels	IT AMP owner	Planned for next version
6	Chapter 2	Research and describe the link between Level of Service statements and new capex and opex expenditure	IT AMP owner	Planned for next version
7	Chapter 2	Research and develop a visual relationship diagram that links Council Outcomes, Council Vision, Council Strategies to ITC Objectives and Levels of Service statements – with the appropriate technical and customer measures	IT AMP owner	Planned for next version
8	Chapter 2	Include quarterly measures to existing performance measures	IT AMP owner	Planned for next version
9	Chapter 3	Research and include technical and demographic forecasting and trend data in more detail	IT AMP owner	Planned for next version
10	Chapter 4	Include a consideration of various ownership/service options that justify/support the current ITC business model	IT AMP owner	Planned for next version
11	Chapter 4	Include the criteria used to rank capital new works	IT AMP owner	Planned for next version
12	Chapter 4	Link maintenance and renewal arrangements and practices to Levels of Service	IT AMP owner	Planned for next version
13	Chapter 5	Link the AMP to the ‘4 well-beings’ and consider introducing a sustainability Level of Service	IT AMP owner	Planned for next version
14	Chapter 7	Develop a plan for testing the Disaster Recovery Plan	IT AMP owner	Planned for next version
15	Chapter 8	Implement recommendations of 2007 ITC asset register audit report	Internal development resources allocated	Underway Appendix 5
16	Chapter 8	Enhance process description with flowchart	IT AMP owner	Planned for next version

Table 9.2.1 –IT AMP Improvement plan

9.3 Monitoring and Review Procedures

The IT asset management plan will require updating and improvement for the purposes of

- making the plan a valuable management and business planning tool for ITC managers in support of the ITC group's strategic business direction
- Ensuring that IT asset information is stored, managed and reported at an appropriate level

10 Appendices

Appendix 1. Detailed Risk Analysis (Risk register, analysis based upon risk matrix)

No	Rank	Rating	Description	Owner	Controls	Scoring (Corporate Risk Management Framework)
1	2	Low	ITC has commenced purchasing PCs with a specification capable of supporting the new version of the desktop (Windows OS) software. The upgrade to that version is expected in FY13, in which case no PCs would require accelerated renewal. If deployment of a new Windows OS is bought forward, the organisation would incur an additional charge	CIO	Monitor business cases	2.56

Appendix 2. Detailed Cable asset description

Auckland City Council Cable Assets

The Council uses three types of cables for voice and data communications: fibre optic, copper for voice and copper for data (UTP). The Council owns these cables and ITC maintains them through contractors. Fibre optic cables provide high-bandwidth communications between the Council buildings and the Civic Data Centre, where all servers such as email, Citynet, and G-drive are located. There are two types of fibre optic cables, single-mode and multi-mode. A third type, which is less common nowadays is a composite of both single-mode and multi-mode fibres in a cable. Single-mode fibre allows high-bandwidth data to be transmitted over great distances (10 to 100 kms), which are suited for inter-building connectivity or Wide Area Networks (WAN). Multi-mode still provides high-bandwidth but only to a maximum distance of 2 kilometres. Multi-mode, which uses less expensive interfaces are better suited for internal network connectivity, where spanning great distances is not required, although the Council still uses multi-mode for short distance inter-building connections. Each major Council building has either a single-mode or a multi-mode fibre cable connection to Civic building. Buildings with single-mode fibre cable are Civic, Bledisloe, Graham St, 360 Queen St, Central Library and New Art Gallery. Buildings with multi-mode fibre cables are Civic, Bledisloe, Graham St, Central Library and Town Hall.

The Council has an extensive voice network that is provided by three PaBXs in Civic, Graham St and Waiheke Island. One way of providing voice service to the other buildings is by multi-pair copper cables. The copper cable is installed and terminated between the PaBX and distribution frame of a building, which is usually situated in the basement, and from the basement to each communications cabinet on each floor. The Council has cables terminated from the Civic PaBX to Bledisloe (300-pair) and Town Hall (100-pair). Central Library has a Remote Peripheral Unit (RPE), which is an active device that extends numerous voice channels from Civic PaBX via a pair of multi-mode fibre cables. Through the RPE, copper cable from Central Library provides voice service to the Old (100-pair) and New (100-pair) Art Galleries.

Within each floor of a building is a network of copper cables for data and voice. In structured cabling terminology, these are called backbone and horizontal cabling. These copper cables are called unshielded twisted pair (UTP) with eight copper wires per cable and the Council uses Category 6 standard, which is suitable for data speeds of up to Gigabit Ethernet. Backbone cabling connects each floor to the PaBX and building switch, which are located in the basement and a central floor in the building, respectively. Horizontal cabling are laid-out in each floor in a "star" pattern with two cables per user. One end in the floor's communications cabinets, which are connected to a LAN switch and patch panel to the PABX, and the other end connected to a PC and telephone.

Appendix 3. The development of the ITC mandate

The development of the ITC Mandate

The ITC Mandate is a set of statements confirmed by the Directors, outlining the Organisation's expectations for the provision of IT facilities, systems and services within Auckland City, and their expectation of ITC's and the Business Groups roles in their provision.

In particular, the ITC Mandate specifies who (ITC or Business Groups) is responsible for each IT activity:

- Numerous activities are the direct responsibility of ITC
- Some activities are the direct responsibility of Business Groups
- A small number of activities are the joint responsibility of ITC and the respective Business Group(s)

The ITC Mandate was prepared as part of the wider Support Function Review undertaken in early 1999 and applies to the following IT systems and services

- The IT Infrastructure
- Procurement of IT goods and services, including user licences
- Projects that have an IT component or implication
- Line of business systems – those systems used by specific business groups and that may run inside or outside of the IT Infrastructure
- Application development – the design, development, testing and implementation of application systems
- Application lifecycle maintenance – the on-going maintenance and support of application systems
- Business/IT consulting
- Facilities Operation – the operation, management and control of the IT infrastructure
- IT training
- Support centre

The roles and responsibilities in the shared service are defined in the table below

IT Service and system type	ITC responsibilities	Business Group responsibilities
IT Infrastructure	Procure, operate and maintain the IT Infrastructure, including services provided by third parties	Extensions to IT infrastructure provided by Business Case
Procurement and financial management	Responsible for the procurement of IT goods and services, including the financial management of assets in the IT Infrastructure	Financial management of 'Line of Business' systems
Projects (that use IT)	Joint responsibility	Joint responsibility
Line of Business systems	For applications that run in the IT Infrastructure, ITC will provide application development and lifecycle management	Development, implementation and support for those Line of Business systems not running in the IT Infrastructure
Application development	Build, test and implement	Requirements and user acceptance testing
Application lifecycle management	Version upgrades and maintenance fixes	
Business/IT consulting	IT consulting to the business	
Facilities Operations	All aspects of the operation of the IT Infrastructure	Contribute to capacity and DR plans
Support	Support Centre	
	Cornerstone support offices	
	Millennium Support office	
Regional Services	Hosting	
IT training	Provide IT training	Needs analysis

Table AP3.1 – Roles and responsibilities in the IT shared service

Appendix 4. Service Delivery Model Review

In late 2007, ITC reviewed the Service Delivery model that has been in place since 1999. A précis of the report is included here.

The conclusions drawn from the information gathering were

- ITC should lead
- The business groups look to ITC to lead and assist them in the use of technology, as “they are the experts”. This includes all areas of technology (eg Line of Business systems) and not just the Cornerstone systems.
- ITC should have a customer focused approach
- The approach or attitude ITC have towards the business groups should be a customer focused approach.
- ITC should engage with the business more
- ITC is at present considered something of a silo within the organisation by many business groups, because the present engagement model is a very impersonal and reactive model. They would like ITC to be proactive in engaging with them.
- ITC is under resourced
- ITC in general is under resourced

Gartner define 5 types of IT organisation in an attempt to describe a path of maturity that organisations can assess themselves on, and strive towards improving their position on the evolutionary scale

The different types are:

- **Type 1 Heritage** – Tactical Technology management – focus is on efficiency; delivery on service level agreements
- **Type 2 Aligned** – Strategy Technology Management – focus is on IT providing strategic support to the business; close links between IT and the business
- **Type 3 Engaged** – Business Systems Leadership – focus is on enhancing the business, agility and business value drive
- **Type 4 Pervasive** – Information and Process Leadership – focus is on transforming business inside and out; information & processes strategic assets drive

The following type is called “Type Z” deliberately (and not “Type 5”) to denote that it is not on the same evolutionary path as the other types above, as it specifically describes a decentralised operating model.

Type Z Community – IT Dispersed in Business – business unit line management fully owns IT/OT sourcing and execution with few or no IT specific roles.

We determine that ITC is primarily a Type 1 organisation with some characteristics of Type 2. The long term goal is for ITC to be a Type 4 organisation. We believe that the recommendations from this review position ITC to achieve that, with the interim steps of achieving Type 2 and Type 3 over the next few years.

The recommendations of the review identified the following 3 areas of change

- Implement a Relationship Management Model.
- Implement a Customer Focused Approach
- Increase Resources in response to Demand

The recommendations of this review are defined as Service Level Changes in the ITC 2008/2009 Business Plan, reflecting where current services are to be extended in support of an Executive Team Objective. Specifically, they define the service level improvement as follows – ‘as the organisation’s reliance on information technology increases, the ITC Group needs to develop in response’.

The specific change descriptions are:

- Feedback and research has shown higher levels of engagement between ITC and business groups is required. This service level change will introduce a solutions leader role for each of the divisions.
- There is an emerging requirement for ITC to play a more active role in governance over line of business information technology. An additional role in contract and vendor negotiation is required to provide this.
- With the growing complexity and integration of our I.T. systems, it becomes increasingly important to manage change in any component. The number of change programmes underway impacting on technology requires a higher level of involvement from ITC, particularly in change control, testing and training. A new tier 4 position is proposed to lead a technology change management team.
- Feedback and research has shown an enhanced programme of training in the use of cornerstone applications is required. This is a new service for ITC to deliver.
- A new strategic architecture function in ITC is to be developed. This function will incorporate strategy and applications architecture, technical architecture, information management and asset planning. One additional FTE is required to complete this team.

Appendix 5. 2007 ITC Asset Register Audit Report – Upgrade report

The following tables describes the agreed actions that resulted from the 2007 ITC Asset Register Audit Report, and the status of each action.

Process Type	#	Change	Description	Status
Business	1	Develop ITC Asset Operations Guide		Underway, estimated completion Aug 2008
	2	Define an asset	Chapter in Operations Guide – rules for the creation of an asset	Completed
	3	Create an asset	Chapter in Operations Guide – new design for creating assets and equipment records and which creates database link	Completed
	4	Include new equipment types	Design for creation of equipment records for screens and servers	Completed
	5	Store paper forms	Chapter in Operations Guide – what paper forms are stored for audit purposes	Underway, estimated completion Aug 2008
	6	Misplaced/stolen assets	Chapter in Operations Guide – new procedure for misplaced and stolen assets	Underway, estimated completion Aug 2008
	7	Monthly Asset Reconciliation	Chapter in Operations Guide – new reconciliation process	Underway, estimated completion Aug 2008
Reports	1	Report design	Reporting required to perform reconciliation	Completed
System	1	Create database linkage	Use of 'asset' field to link asset and equipment records to improve reporting	Completed
	2	Configuration changes for servers and screens	SAP configuration changes to support new equipment types	Completed
Notes	1	Notes of activities where no immediate action is to be taken	Plans for future remote validation and additional fields in the .csv file	Underway, estimated completion Aug 2008
'Cleanup'	1	Dispose of obsolete assets	Description of ITC's plans to dispose of obsolete assets – not within scope of business design	Underway, estimated completion Dec 2008

Table AP5.1 – Status of agreed actions -2007 ITC Asset Register Audit Report

Appendix 6. Priority System extract from the ITC Disaster Recovery Plan

Service	Priority	Comments
Network and Active Directory Services	1	Prerequisites to get other services working
E-Mail	1	Critical business information and communication service
CityNet	1	Critical business communication services
Pathway	1	Critical core system supporting public transactions
File & Print	1	Core document repository for business
ROAM	1	External access service
GIS + AMIS	2	Component of LIMs, EDMS Integration
EDMS/Workbench	2	Core ACE system for site file & consent processing
ePathway	2	External pathway public transaction channel
SAP	3	Internal core financial/property/asset management service
SAP BW	3	Financial reporting service
Library - Millennium	3	Regional Hosted Library service(s) note: it has its own DR plan independent of ITC's
Art Gallery CMS	3	Art Gallery collection management

Table AP6.1 – Priority IT Services/Systems

Legend

Priority	Description
1	Critical customer facing services; Communication services (web, mail); These are also prerequisites for other services.
2	Additional customer services.
3	Business support services.

Table AP6.2 – Legend