

# Town of Port Hedland

## ICT Implementation Plan 2012 - 2017



*December 2012*

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## Introduction

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It is an exciting time in Port Hedland's development. As a small port town in Western Australia's beautiful North West, Port Hedland is disproportionately driving the economy of the nation and as the Town continues to prosper, sitting on the cusp of enormous, rapid growth.

Western Australia's Pilbara Region and Port Hedland particularly, have grown to become the economic engine room of the Australian economy on the back of an internationally significant resource industry.

This growth requires well-rounded strategic planning matched with investment to secure the right foundations and balance economic, community and sustainability needs. To achieve this, the Town of Port Hedland has listened to the voice of the community and developed a ten year Strategic Community Plan (SCP) that translates the needs, desires and wants of the community into a targeted suite of strategic priorities. These priorities will drive practical short and medium term planning, while maintaining sight of the long-term objectives over the next ten years.

Our 4 Year Corporate Business Plan (CBP) activates those community aspirations. Our CBP sets the strategic priorities that will drive the operation of Port Hedland over the short to medium term, taking into consideration the human resources, assets and financial capacity of the Town of Port Hedland local government administration.

The CBP ensures the integration of the following informing strategies:

- Long-Term Financial Plans
- Workforce Plans (inclusive of Housing and Office Accommodation Strategies)
- Asset Management Plans
- Service Plans
- Issue Specific Plans
- ICT Strategy

The Town of Port Hedland is committed to providing committed strategic planning and leadership, focused on strengthening our community, providing growth, and diversifying the local economy for the vision of being a city.

Our ICT Vision is to underpin the delivery of services to the community and assist the Town of Port Hedland in achieving its vision; the following ICT Vision statement has been developed to drive the ICT Strategic Plan:

***“Deliver business and community focussed ICT products and services that are effective, robust, and scalable”***

The ICT vision, which focuses on four main objectives, would be met through 'leading practice' and contemporary standards for ICT Service Management.

Therefore each of the themes covered within the SCP and CBP which outline the actions and direction required to provide services to the community and to support the organisation are represented in this Implementation Plan.

This detailed Implementation Plan delivers the aspirations, desires and planning requirements to ensure compliance with legislation and to achieve business service level obligation of ICT services. Each of the ICT Themes articulated in the ICT Strategic Plan 2012-2107 form the basis of this Implementation Plan. Actions to achieve the strategic themes are detailed with indicative costs associated with and timelines for implementation

## Executive summary

The Town of Port Hedland is moving through a significant period of change and development. In recognition of this and the need to ensure that it can continue to meet the aspirations of the community, the Town of Port Hedland has undertaken to put in place a number Strategic and Business Plans to deliver short, medium, and long term objectives. The Town of Port Hedland providing committed strategic planning and leadership, focused on strengthening our community, providing growth, and diversifying the local economy for the vision of being a city.

ICT has profoundly changed almost all aspects of society. It is now central to how people communicate, interact, make decisions, and do business. This includes the way Town of Port Hedland operate and deliver services. ICT plays a key role as it makes possible the transformation of services created by current and emerging technologies. Also influenced and raised our expectations for dealing with our community and local government.

Information and Communication Technology (ICT)<sup>1</sup> services are presently provided to approximately 190 full time, part time, and casual employees across nine (9) sites for the Town of Port Hedland, as well as to the community and stakeholders. This ICT Strategic Plan establishes a course of action to guide the future development and delivery of ICT services for the Town of Port Hedland.

This plan is one of the informing strategies and plans that form part of the Integrated Strategic Planning and Reporting Framework (IPR). The ICT Strategic Plan, as one of a number of ‘informing strategies’, identifies actions that are not only specific to the general implementation and operation of ICT services, but enables the objectives identified within the Corporate Business Plan and aspirations of the Strategic Community Plan. This relationship within the IPR is shown diagrammatically in Figure 1.

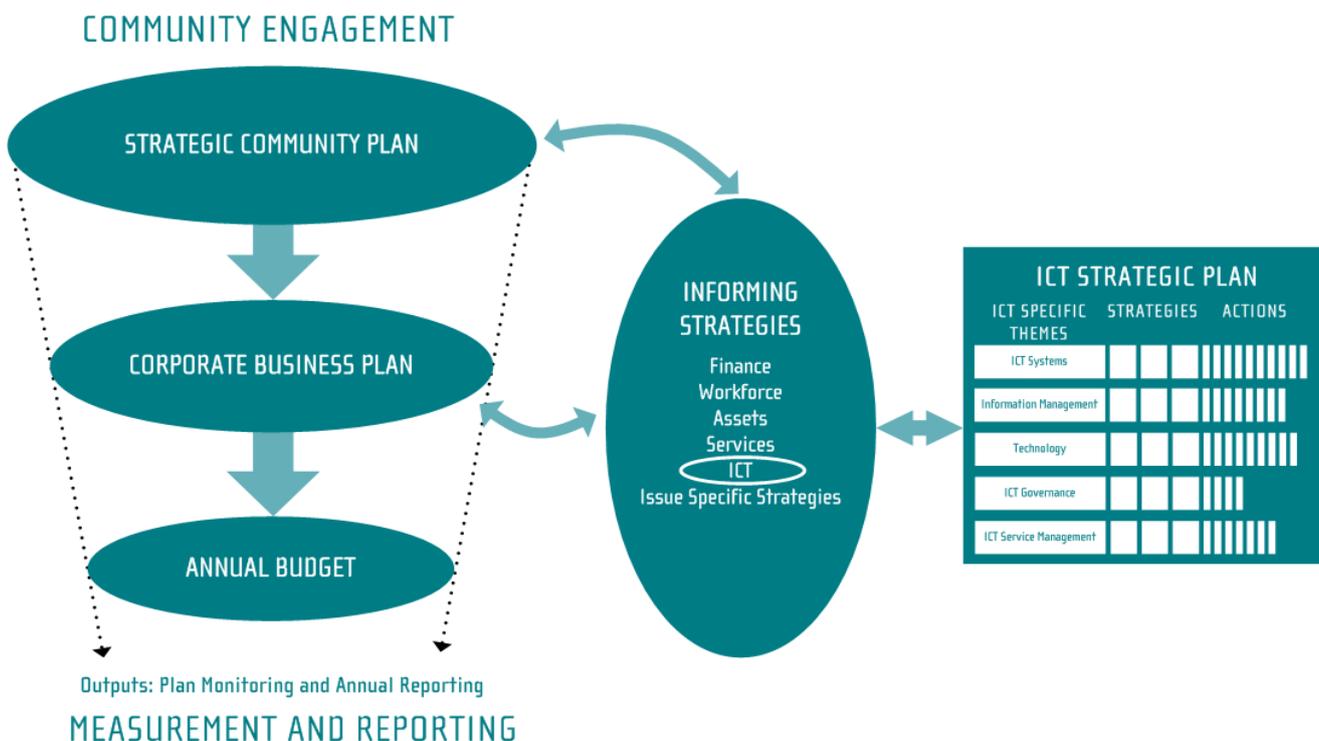


Figure 1 - IPR Framework and ICT Strategic Plan Relationship

<sup>1</sup> The term ICT is interchangeable with the term IT (Information Technology). The use of the term ICT, which is more current, is due to the merging of traditional telephone communication with general computing and network technologies.

## CBP Development Process (ICT support )

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The key aim of the CBP development process is to carefully consider the operating environment of the local government. This consideration included the necessary resources required to provide for the sustainable delivery of services that meet community aspirations now and into the four years ahead.

To develop the ICT component required to support the outcomes of the CBP the following analysis was completed:

### External analysis

We have considered relevant external factors that could impact on operations

### Operational Risk Assessment

We are developing a risk management framework to assist in the identification and management of operational risks that could affect the local government's ability to deliver ICT services and projects

### Internal Analysis

We have analysed and made improvements to our internal ICT capability to ensure we can deliver the vision and priorities that the community has voiced

### Integration

We have incorporated and considered all of our strategies, operational requirements and other business considerations

### Resource Capability analysis

We have and will continue to assess the resource plans (e.g. Assets, Workforce, Finance) to determine our business-as-usual requirements as well as the priorities outlined in the SCP

### Service/Project Evaluation

We have identified the methods to assess and evaluate our ICT services and projects to ensure they are aligned with the strategic direction of our local government in a way that is cost effective and sustainable

### Organisational Development

We have and will continue to communicate throughout our local government the vision and values voiced by the community and ensure that the organisation is aligned to our strategic objectives.

## Town of Port Hedland Strategic Community Plan

The themes identified by the community during the development of the Strategic Community Plan (SCP) are as follows:

<b>COMMUNITY</b>	<b>We are a friendly, exciting city of neighbours that is vibrant and diverse</b>
Building a unified and connected community is a key priority for our regional city. Recognised as a vibrant destination by local residents as well as national and international tourists, Port Hedland will be a city of neighbours, alive with recreational, cultural and entertainment activities to enrich the quality of life of residents and visitors.	
<b>ECONOMIC</b>	<b>Our economy is resilient and provides choice and opportunities</b>
An economic powerhouse of Australia, Port Hedland will be a domestic and international gateway into and out of Western Australia. We will be a diversified economy and major distribution and transport hub. The Town of Port Hedland will boast local employment and investment opportunities that allow families in our community to grow and prosper.	
<b>ENVIRONMENT</b>	<b>A city in which we live in balance with our unique surrounds</b>
Creating a vibrant and diverse place to live that is in balance with the natural elements of our surroundings and cultural heritage. A safe, modern, and attractive city, Port Hedland is a community where generations of residents are proud to call home and establish themselves as a permanent fixture in the unique environment of Port Hedland.	
<b>LOCAL LEADERSHIP</b>	<b>We are leaders in the community, with a structured commitment to transforming Port Hedland</b>
The Town of Port Hedland provides committed strategic planning and leadership, focused on strengthening Port Hedland's community, providing growth opportunities, and diversifying the local economy. Bringing transformation to the Pilbara and enhancing the quality of life for Port Hedland's residents, the organisation is governed in an ethically responsible manner that meets all of its legislative and community obligations.	

Specific strategies have been developed for ICT through analysis of business and community requirements along with general factors that are driving ICT change. The majority of the strategies and actions fall within the SCP theme of 'Local Leadership' as they grow and improve the Town's services.

A summary of the ICT strategies is shown in the table on the following page, while details for each strategy are contained in the relevant sections for each ICT Strategic Theme. Endorsement of the strategies contained in this plan does not automatically endorse the allocation of funds and/or resources identified in the Action Plans. Implications of these strategies will be captured in the 10 year Long Term Financial Plan.

## Information Management Framework

The **Information Technology Framework below** identifies the types of documents (strategies, policies, schedules, and plans) that the Department of Local Government has determined optimally should be in place to effectively manage information, communications, and technology.

INFORMATION TECHNOLOGY FRAMEWORK			
Maturity Levels			
<b>GOVERNANCE</b>			
ICT Strategic Plan Risk Management strategy and plan		ICT Annual Business plans Internal KPIs & Service Level Agreements	
<b>EMERGING TREND &amp; TECHNOLOGIES</b>			
Social Media Policy Bring-your-own-Device Policy	Online Services plan Open Data Policy		Cloud Computing Policy
<b>BUSINESS SYSTEMS AND APPLICATIONS</b> Systems Documentation Systems Test and Implementation plans Website and Intranet Business plan Website Accessibility Policy Systems Upgrade Policy Software Asset Management Policy Change Management /Version Control Policy	<b>INFRASTRUCTURE AND TECHNOLOGY</b> ICT Acceptable Usage Policy Systems Documentation IT Asset Register ICT Asset Management Plan ICT Asset Replacement Policy Infrastructure Capacity Plan Virtualisation Policy	<b>ICT BUSINESS CONTINUITY</b> IT Disaster Recovery Plan Backup Policy ICT Risk Assessment Matrix ICT Risk Mitigation Plan	<b>SECURITY</b> ICT Security Policy Password Policy Security Audit Policy Incident Response Policy Incident management Plan
<b>PROJECT MANAGEMENT</b>			
Business Case Project Schedule Project Risk Register Project Communication Plan		Project Statement (defines scope and deliverables) Project Status Report Project Issues Register Project Quality Plan	
		Project Plan Post implementation Review	
Colour Coding represents suggested minimum requirements to meet the standards below. The actual level of uptake needs to be determined by each local government based on its size and specific business requirements.			
<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: #c00000; margin-right: 5px;"></span> = ICT Baseline standard</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: #0070c0; margin-right: 5px;"></span> = Intermediate (Recommended) standard</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: #000000; margin-right: 5px;"></span> = Advanced (Ideal) standard</li> </ul>			

## Baseline Implementation Model

As articulated in the ICT Strategic Plan 2012-2017 it has been decided to achieve full maturity against this framework in a staged approach.

The following diagram depicts the strategic actions within the five priority areas which will achieve this first stage baseline position. Once we have achieved this baseline maturity, we will be in position to plan for further improvement to achieve the recommended maturity levels within the framework. We will be able to map and record our growth and increasing maturity against the various stages and milestones in accordance with the overall organisational direction.



These five strategic themes are supported by ICT Strategies encapsulated in this ICT Implementation Plan.

Under each of these five are outlined the detailed activities to be undertaken to deliver the required ICT Strategies within the necessary timeframes after consultation with Town of Port Hedland staff.

The following table outlines these ICT Strategies within the ICT Specific Themes.

## LOCAL LEADERSHIP

We are leaders in the community, with a structured commitment to transforming Port Hedland

### ICT SPECIFIC THEMES

Business Systems and Applications	Information Management	Emerging Trend and Technologies	Governance	Infrastructure and Technology
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ICT STRATEGIES

IS-01	Business Systems and Applications will be appropriate to the organisational needs and servicing staff and external consumers.	IM-01	Information stores will have relevant and up-to-date data through better alignment with processes and regular audits.	T-01	Technologies will be chosen and implemented to ensure efficient and effective access to Business Systems and Applications and services for employees and other service consumers.	G-01	Alignment of ICT systems, services, and budget with the Town's strategic and operational directions. The appropriate ICT Governance model will incorporate business rules and procedures which are designed to validate activities with parameters and KPI measurements which reflect linkages to the SCP and CBP activities and delegations.	SM-01	ICT technologies and services will be delivered through the and service providers and be reviewed as service needs change.
IS-02	The effective and efficient use of Business Systems and Applications through defined ICT development training and staff capabilities.	IM-02	Knowledge Management will be improved across the workforce through defined policies and practices for usage of systems.	T-02	All essential ICT hardware and software will be managed through a defined and documented lifecycle in line with the Asset Management Plan.			SM-02	Transparency and accountability of ICT will be provided through relevant applications, monitoring, user confidence surveys and reporting.
IS-03	Integration of Business Systems and Applications will be developed where considered necessary along with the optimisation of business processes.	IM-03	The security of information resources will be satisfied through adopting leading-practice process and contemporary standards.	T-03	Robust, scalable, secure voice and data services will be used to meet the growing service needs of the organisation and community.			SM-03	Leading practice ICT Service Management processes will be used to meet the service level and availability needs of the organisation and other external service consumers.
IS-04	Online services for staff and external service consumers will be improved through the provision of more contemporary systems.	IM-04	Information will be managed and classified in line with its value and regulatory requirements.	T-04	ICT will employ environmentally appropriate technology procurement and operational practices.				
IS-05	Automation of input processes and relevant notifications will be implemented to improve efficiency and end-user services.								

## Actions and Relationships

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The following actions identified within the Implementation Plan are required to achieve the themes and strategies identified in the ICT Strategic Plan.

In this Implementation Plan each action is supported by a:

### Indicative Town of Port Hedland Budget

The total indicative project budget incorporates apart from know hardware or software costs, any staff costs identified in the Timeframe/Staff Resource Cost columns, plus consultancy costs where relevant.

### Timeframe / Staff Resource Cost

This timeframe indicates planning time, project delivery time and in some cases time associated with the initiative or action when it becomes “business as usual”, if ICT staff time is required to maintain or review.

The staff resource cost against each phase of action delivery is also indicated as a cost. This may be ICT staff resource or whole of organisation input into a particular action or phase of an action.

### Outcomes Sought

This section identifies the particular ICT Strategies the actions will deliver plus articulates desired outcomes as a measure of how the Town of Port Hedland and community will know when the action has been completed successfully

## ICT Strategic Theme- Business Systems and Applications

In the context of this Strategic Plan, the scope of Business Systems and Applications includes:

- Software applications used by the Town of Port Hedland to conduct its business and fulfil its regulatory obligations
- Suitability of the software applications that form the Business Systems and Applications and that provide access to data stores for either storage or retrieval of information
- Integration of the various Business Systems and Applications and software components

Action Delivery Legend

Planning: ●

Delivery: ●

BAU: ●

### IS-01: Appropriate Business Systems and Applications

Business Systems and Applications will be appropriate to the organisational needs and servicing staff and external consumers.

Business unit and end-user requirements should, along with consideration of the ICT technology and support requirements, form the basis for selection of ICT Systems.

#### Outcomes Sought:

- Business Systems and Applications support service delivery and meet contemporary standard
- Council assets are managed properly
- Our employees have access to systems that improve quality of customer service
- Statutory and other requirements are met

Actions	Indicative budget	Timeframe /Staff Resource Cost (year commencing 1 July)					
		12/13	13/14	14/15	15/16	16/17	
a 4.1a	Conduct annual <u>reviews</u> of key Business Systems and Applications articulated in the ICT Strategic Plan to ascertain business 'fit' and any gaps. Note: Additional projects and/or actions may be added annually as a result of this.	\$21k		● 5k	● 5k	● 5.5k	● 5.5k
b 4.1a	Implement additional Interplan system modules including Financial/Budget Management, Workforce Planning, and Performance Evaluation & Review to support the Workforce Plan and long Term Financial Plan.	\$145k	● 55k				
c 4.1c	Specify, select, and implement an ICT Asset Management System.	\$60k	●	●	●	●	●

Actions		Indicative budget	Timeframe /Staff Resource Cost (year commencing 1 July)				
			12/13 2k	13/14 2k	14/15 2k	15/16 2k	16/17 2k
d 4.1a	Specify, select, and implement a Geographic Information System (GIS).	\$289k		● 5k	● 109k	● 60k	● 65k
e 1.1e	Ensure that necessary ICT software and services are available for Traffic Forecasting and Planning Studies.	\$5k		● 5k			
f 4.2a	Specify, select, and implement a Customer Request Management (CRM) System. That supports outcomes of customers service strategy (to be developed)	\$343k		● 5k	● 218	● 20k	
g 4.3b	Review and implement if acceptable WALGA's 'Councils Online' system as an enabler for more effective Development and Building Application processing.	\$80k		● 15k	● 15k		
h	Specify, select, and implement a replacement Weighbridge/Landfill system.	\$57k		● 2k	● 5k		

## IS-02: Business Systems and Applications are able to be used effectively

The effective and efficient use of Business Systems and Applications through defined ICT development training and staff capabilities.

Business Systems and Applications and associated application software can provide significant productivity gains. However, if end-users are not proficient in using the systems, this can then lead to incorrect data and/or inefficient processes being developed or used.

### Outcomes Sought:

- Improved data integrity (aligns with strategy IM-01) that enables better reporting and service provision
- Improved knowledge management within the organisation (aligns with strategy IM-02)
- Increased job satisfaction
- Reduction in 'ad hoc' and disparate repositories such as spreadsheets that do not form part of a process or system

Actions		Indicative budget	Timeframe /Staff Resource Cost (year commencing 1 July)				
			12/13	13/14	14/15	15/16	16/17

Actions		Indicative budget	Timeframe /Staff Resource Cost (year commencing 1 July)				
			12/13	13/14	14/15	15/16	16/17
a 4.3b	Determine the mechanism and/or resourcing for providing Business Systems Training and general ICT Training online capabilities. The effective and efficient use of Business Systems and Applications through defined ICT development training and staff capabilities.	\$121k		● 21k	● 50k	● 50k	

### IS-03: Integrated Business Systems and Applications

Integration of Business Systems and Applications will be developed where considered necessary along with the optimisation of business processes. As the number of Business Systems and Applications increases, there is the potential for ‘islands’ of information to develop that can lead to difficulties in reporting and interpretation.

**Outcomes Sought:**

- Consistency of information
- Eliminating the need to have multiple systems performing the same function
- Access to relevant information without the need to duplicate information that is common across multiple systems
- Secure ‘Single Sign-on’ to access information from all relevant systems

Actions		Indicative budget	Timeframe /Staff Resource Cost (year commencing 1 July)				
			12/13	13/14	14/15	15/16	16/17
a 4.3b	Enable System Integration for more effective use of information by implementing SynergySoft SQL Replication (SQL Mirror) to support implementation of internal process review Note: Includes \$15k Software & \$10k for consulting and training.	\$70k	● 5k	● 10k	● 10k	● 10k	● 10k

## IS-04: Online Services

Online services for staff and external service consumers will be improved through the provision of more contemporary systems.

There is a need to ensure that the Town of Port Hedland’s online services are contemporary in terms of information, service to the community, ‘usability’ and importantly to achieve the Town’s goals of improved communication and systems.

**Outcomes Sought:**

- Improved online interaction with the community through contemporary web, social media, and notification services.
- Increased knowledge management within the Town of Port Hedland’s workforce.
- Employees have better access to contemporary Business Systems and Applications and services.

Actions		Indicative budget	Timeframe /Staff Resource Cost (year commencing 1 July)				
			12/13	13/14	14/15	15/16	16/17
a 4.1c	Specify, select, and implement a replacement website based on a contemporary Content Management System. This should be integrated for Single Sign-on for administration and also with the Electronic Document Records Management System (EDRMS) for document access.	\$200k	● 162k	● 22k	● 22k	● 22k	● 22k
b 4.1c	Specify, select, and implement an Intranet/Extranet System for employees and Councillors based on content management system.	\$250k	● 55k	● 55k	● 22k	● 22k	● 22k
c	Review the social media policy to maximise the benefits and minimise issues associated with Social Networking technologies.	\$40k	● 2k	● 21k	● 21k	● 21k	● 21k
d	Phased implementation of Social Networking technologies and processes for community interaction in accordance with social media policy.	\$30k	● 2k	● 2k	● 2k	● 2k	● 2k
e	Online Banking services are updated in line with reviewed banking arrangements.	\$45k	● 5k	● 12k	● 13k		

## IS-05: Automation

Automation of input processes and relevant notifications will be implemented to improve efficiency and end-user services.

Where possible, input of data into business systems should be automated for efficiency and accuracy. Additionally, automated notifications and/or alerts to the end-users of systems (including the community) should be implemented to reduce the need for manually produced or paper notifications.

**Outcomes Sought:**

- Improved interaction with the community
- More effective and efficient use of systems
- Reduction in paper usage
- Improved data accuracy

Actions		Indicative budget	Timeframe /Staff Resource Cost (year commencing 1 July)				
			12/13	13/14	14/15	15/16	16/17
a	Implement SynergySoft workflow engine and email notifications initially for improved HR and Payroll functions (includes automating leave applications and payslips)	\$60k	● 22k	● 2k	● 2k	● 2k	● 2k

## ICT Strategic Theme- Information Management

In the context of this Strategic Plan, the scope of Information Management includes:

- All electronic information that is stored as data and records required by the Town of Port Hedland to conduct its business and fulfil its regulatory obligations
- Security of the information in terms of access controls and protection from destruction
- Availability of the information based on the needs of the business and end-users
- The 'pathways' for access to the information - this can be part of an information directory

The information generated, stored, and used by the Town of Port Hedland is a very significant and valuable asset. Without it the organisation could not function.

Action Delivery Legend

Planning: ●

Delivery: ●

BAU: ●

### IM-01: Up-to-date and relevant Data

Information stores will have relevant and up-to-date data through better alignment with processes and regular audits.

Information stores will have relevant and up-to-date data. The data stored as part of the Town of Port Hedland's systems must be kept as up-to-date as economically viable.

#### Outcomes Sought:

- Confidence in the accuracy of data and reporting
- Increased Business Intelligence
- Reduced re-work or re-entry of data

Actions	Indicative budget	Timeframe /Staff Resource Cost (year commencing 1 July)				
		12/13	13/14	14/15	15/16	16/17
a Initiate a project to ensure that SynergySoft data is inclusive of Name and Address Register up-to-date and consistent.	\$18k	● 10k	● 2k	● 2k	● 2k	● 2k

Actions		Indicative budget	Timeframe /Staff Resource Cost (year commencing 1 July)				
			12/13	13/14	14/15	15/16	16/17
b	Specify, select and implement an email archive solution to improve management of email and FOI searches	\$100k	● 55k	● 11k	● 11k	● 11k	● 12k

## IM-02: Knowledge Management

Knowledge Management will be improved across the workforce through defined policies and practices for usage of systems.

Knowledge Management<sup>2</sup> will be improved across the workforce through improved data and systems.

### Outcomes Sought:

- Improved knowledge transfer and retention within the Town of Port Hedland's operations
- Improved access to and management of information
- Process consistency

Actions		Indicative budget	Timeframe /Staff Resource Cost (year commencing 1 July)				
			12/13	13/14	14/15	15/16	16/17
a	Processes and procedures are documented and stored online and maintained. Note: link implementation to Intranet project	\$100	● 55k	● 22k	● 11k	● 11k	

<sup>2</sup> In the context of ICT, 'Knowledge Management' refers to the creation of an environment where systems and technologies enable sharing, learning and collaboration that together lead to organisational improvement.

## IM-03: Information Security

The security of information resources will be satisfied through adopting leading- practice process and contemporary standards.

A more structured approach needs to be taken to Information Security by the organisation. An information Security Management System (ISMS) should be established that is based on recognised Australian and/or International Standards. The ISMS can be implemented in conjunction with other Risk Management standards, guidelines or relevant procedures or practices developed by the Town of Port Hedland.

**Outcomes Sought:**

- Improved Disaster Readiness
- Increased data security
- Operational risk is planned for and managed

Actions		Indicative budget	Timeframe /Staff Resource Cost (year commencing 1 July)				
			12/13	13/14	14/15	15/16	16/17
a	Conduct Annual Vulnerability Assessments by external ICT Security Specialist to ensure protection of resources and business continuity.	\$45k	● 7k	● 7k	● 7k	● 7k	● 7k
b	Review the ICT component of the Disaster Recovery Plan and minimise risk to Business and alignment with overall Business Continuity Planning (BCP).	\$111k		● 34k	● 13k	● 14k	
c	Specify, document and implement an information security management system (ISMS). This includes standards publications for process and procedures which ensuring corporate data protection and handling methods.	\$75k	● 11k	● 22k	● 9k	● 22k	● 11k

## IM-04: Information Lifecycle Management

Information will be managed and classified in line with its value and regulatory requirements.

There is a need to identify, classify, and manage electronic information (data) in terms of its importance and what it is required for e.g. regulatory, corporate, or general purposes.

**Outcomes Sought:**

- Retention of data based on defined policies and regulatory requirements
- Unnecessary or obsolete data deleted or archived
- Reduced infrastructure and support requirements
- Improved efficiency
- Nominated owners of data

Actions		Indicative budget	Timeframe /Staff Resource Cost (year commencing 1 July)				
			12/13	13/14	14/15	15/16	16/17
a	Identify data custodians for each of the Information areas. Develop custodian guidelines identifying data owner's responsibilities.	\$22k		● 11k	● 11k	● 11k	
b	Classify the growing amount of information (data) in terms of the business value with an aim to improve its management, life, and availability to users.	\$33k		● 11k	● 11k	● 11k	

## ICT Strategic Theme- Emerging Trends and Technologies

In the context of this Strategic Plan, the scope of Information Technology includes:

- Hardware needed to run the various software applications and store the associated information e.g. PCs, Servers, Storage devices
- Hardware needed to provide telecommunication services including Telephony and general Networking
- Data services/communication links that form the connections between sites and to the rest-of-the-world
- Software that forms the base operating platform for business application software to run on e.g. PC Operating Systems, Server Operating Systems
- Other hardware input and output devices including scanners, faxes, printers, bar-code readers
- Environmental and physical components that provide accommodation, electrical power and air-conditioning to ensure the effective and efficient operation of key ICT components e.g. Uninterruptible Power Supplies (UPS), Racks, Cabinets, Cabling Systems, Computer Rooms.

The challenge for the Town of Port Hedland is to implement and maintain infrastructure components appropriate to the delivery of all required ICT services. A series of technology strategies that will improve effectiveness and sustainability is essential.

Action Delivery Legend

Planning: ●

Delivery: ●

BAU: ●

### T-01: Technology choice is aligned to the business needs

Technologies will be chosen and implemented to ensure efficient and effective access to Business Systems and Applications and services for employees and other service consumers.

It is vital that the selection of information and communication technologies be aligned with the Town of Port Hedland's business needs. Implicit in this is that 'business' refers to the services required by or as part of services to the community.

#### Outcomes Sought:

- Improved technology selection
- Improved sourcing solutions
- Better services

Actions	Indicative budget	Timeframe /Staff Resource Cost (year commencing 1 July)				
		12/13	13/14	14/15	15/16	16/17

Actions		Indicative budget	Timeframe /Staff Resource Cost (year commencing 1 July)				
			12/13	13/14	14/15	15/16	16/17
a	Specify, select, and implement remote access and management technology for recreation facilities and lighting controls.	\$14k	● 7k	● 7k			
b	Work with Community Development to ensure the Technical upgrade of Matt Dann Cultural Centre in terms of ICT is adequately specified.	\$10k	● 2k	● 2k	● 2k	● 2k	● 2k
c	Specify and select a mobile computing platform including appropriate tablet model/s. Note: this does not allow for purchase of the tablets. Also, this action should occur after the release of Microsoft Windows 8 and consider Windows 8, Android, and Apple iOS.	\$60k	● 30k	● 30k			
d	Specify, select, and implement CCTV upgrades as part of the CCTV master plan.	\$1.1m	●	● 55k	● 55k	● 55k	● 22k
e	Specify, select, and implement CCTV services for JD Hardie Centre.	\$50k	● 25k	● 25k			
f	Develop and implement a Standard Operating Environment (SOE) for Library Services as part of the new South Hedland Library and Community Centre. This includes public PC reservation software, print management/charging software and secure Wi-Fi.	\$55k	● 11k	● 22k	● 22k		
g	Implementation of a Library SOE which differs from Corporate SOE, and the possible future relocation of Port Hedland Library ICT services and associated devices.	\$30k		● 23k	● 7k		
h	Work with Community Development to ensure that there is the capability to support Digital Cinema services.	\$22k		● 22k			
i	Specify, select, and implement remote access and control for irrigation systems.	\$11k		● 11k			

## T-02: Lifecycle management of Technology

All essential ICT hardware and software will be managed through a defined and documented lifecycle in line with the Asset Management Plan.

A key component of the ICT strategy is the lifecycle management of ICT infrastructure and software used to deliver services internally and externally for the Town of Port Hedland. This strategy aligns ICT assets with the Town's Asset Management Plan and associated policy. A table identifying the agreed lifecycles for various hardware components is shown in Appendix 1.

### Outcomes Sought:

- Council assets are properly maintained and managed
- Hardware that is dependable throughout its defined life
- Software that is supported by the manufacturer

Actions	Indicative budget	Timeframe /Staff Resource Cost (year commencing 1 July)				
		12/13	13/14	14/15	15/16	16/17
a Replace 1/3 of the total PC fleet. Note: budget shown is an annual amount	\$144k	●	●	●	●	●
b Annual Upgrade of SynergySoft System to the latest version.	\$25k	●	●	●	●	●
c Lifecycle replacement of 1/4 of the Multi-Function Printers	\$22k	●	●	●	●	●
d Specify, select, and implement replacement physical server, Storage Area Network (SAN), and 'core' Local Area Network (LAN) infrastructure. Note: includes implementation of virtual servers.	\$1,250k	● 110k	● 110k			
e Develop and deploy the new PC Standard Operating Environment (Windows 7 & Office 2012) to replace Windows XP and Office 2003. Includes specifying, documenting, building, testing and planning deployment.	\$100k	● 55k	● 45k			
f Replace access switches (Local Area Network) as part of a lifecycle replacement program.	\$100k	● 22k	● 22k			
g Define and document an ICT Technology Architecture Plan that details reasons for technology selection and lifecycles.	\$35k	● 13k	● 22k			

Actions	Indicative budget	Timeframe /Staff Resource Cost (year commencing 1 July)				
		12/13	13/14	14/15	15/16	16/17
h Virtualise the Amlib server and application. Upgrade to the latest version, implement NetOPAC, and automated notifications.	\$15k		● 15k			
i Select the PC Operating system to replace Windows 7 and Office 2010 and develop the new SOE. Includes specifying, documenting, building, testing and planning deployment. Note: Assumes Microsoft ELA in place with Software Assurance.	\$100k					● 100k
k Network communications are upgraded by June 2013.	\$22k	● 22k				

### T-03: Scalable communication services

Robust, scalable, secure voice and data services will be used to meet the growing service needs of the organisation and community.

The need for scalable communication (data) services is fundamental to the provision of modern, reliable ICT and security services. This not only applies to Internet connections but also the Local Area Network (LAN) and Wide Area Network (WAN) connections used internally and between the Town's offices and buildings.

**Outcomes Sought:**

- Improved service offerings to the community/residents
- Flexible access to system resource
- Better system performance/response/resilience
- Ability to host systems at the most appropriate location

Actions	Indicative budget	Timeframe /Staff Resource Cost (year commencing 1 July)				
		12/13	13/14	14/15	15/16	16/17
a Conduct a review of Data Communications Services to determine whether the existing private network will be retained and refreshed or other service provider products would be used. Note: This is combined with the lifecycle replacement/upgrade of Microwave systems.	\$250k	● 22k	● 7k	● 7k	● 7k	● 7k

**T-04: Environmentally sustainable ICT**

ICT will employ environmentally appropriate technology procurement and operational practices.

With all the benefits associated with the use of ICT, there are also some significant ‘downsides’ of its use in terms of energy consumption, packaging and safe end-of-life disposal.

**Outcomes Sought:**

- Use of energy efficient technologies to reduce operating cost and greenhouse gas emissions
- Responsible disposal of hardware through recycling
- Use of responsible suppliers with carbon offsets

Actions		Indicative budget	Timeframe /Staff Resource Cost (year commencing 1 July)				
			12/13	13/14	14/15	15/16	16/17
a	Specify a ‘Green-ICT’ Policy that includes the use of EnergyStar compliant hardware, preference for recyclable or bio-degradable packaging and responsible disposal practices.	\$7k		● 7k			

## ICT Strategic Theme- Governance

In the context of this Strategic Plan, the scope of ICT Governance includes:

- The basis for objective evaluation of and deciding on new ICT projects and services
- The mechanisms for ensuring that ICT continues to meet the ongoing needs of the organisation

Action Delivery Legend    Planning: ●    Delivery: ●    BAU: ●

### G-01: Effective ICT Governance

Alignment of ICT systems, services, and budget with the Town’s strategic and operational directions.

The appropriate ICT Governance model will incorporate business rules and procedures which are designed to validate activities with parameters and KPI measurements which reflect linkages to the SCP and CBP activities and delegations.

To ensure that Business Systems and Applications and services are aligned to the Town of Port Hedland’s strategic and operational directions, it is essential that an effective ICT Governance process is in place.

**Outcomes Sought:**

- More effective implementation of ICT related initiatives that are aligned to the Town of Port Hedland’s objectives and community aspirations with agreed priorities.
- Improvement in service capability
- Responsible and transparent management of ICT
- Culture of continuous improvement

Actions	Indicative budget	Timeframe /Staff Resource Cost (year commencing 1 July)				
		12/13	13/14	14/15	15/16	16/17
a Establish ICT Governance framework through a consultative programme and quarterly agenda workshop.	\$25k	● 5k	● 5k	● 5k	● 5k	● 5k
b Develop an ICT Strategic Plan for July 2017 - June 2022 via external consultant firm and or review on internal consultative programme prior engagement from external resources.	\$250k				● 25k	● 225k

# ICT Strategic Theme- Infrastructure and Technology

In the context of this Strategic Plan, the scope of ICT Service Management includes:

- Processes used to plan and manage the various aspects of ICT technologies and systems
- Standards and frameworks employed for developing, implementing and operating the various processes
- Recruitment and professional development practices to ensure the ongoing provision of effective ICT service

Action Delivery Legend    Planning: ●    Delivery: ●    BAU: ●

## SM-01: Appropriate choice of ICT Personnel and Providers

ICT technologies and services will be delivered through the and service providers and be reviewed as service needs change.  
 As ICT technologies and services evolve, the ability for small ICT teams to be adequately skilled and resourced to implement and support all technologies is impossible. It is very important that the actual roles and functions of ICT employees or external service providers to the Town of Port Hedland are clearly defined and understood.

**Outcomes Sought:**

- Alignment of ICT employee numbers and structure with the 4 year Workforce Plan
- Our people are adequately resourced and skilled to deliver services
- Improvement in service capability

Actions	Indicative budget	Timeframe /Staff Resource Cost (year commencing 1 July)				
		12/13	13/14	14/15	15/16	16/17
a Review ICT employee skills, roles and structure in line with changes in technologies and a service catalogue of services provided to the Town of Port Hedland	\$100k	● 20k	● 20k	● 20k	● 20k	● 20k

## SM-02: Transparency and Accountability for ICT Services

Transparency and accountability of ICT will be provided through relevant applications, monitoring, user confidence surveys and reporting.

As with the services the Town of Port Hedland provides to the community, there is a corresponding need for transparency and accountability of ICT services. This will occur through effective application management, monitoring and reporting.

**Outcomes Sought:**

- Improved transparency
- Increased system availability
- Service improvement projects delivered when required
- Improvement in service capability

Actions		Indicative budget	Timeframe /Staff Resource Cost (year commencing 1 July)				
			12/13	13/14	14/15	15/16	16/17
a	Develop a framework for monitoring and reporting availability and performance basis on key indicators and service levels with various departments and stakeholders. Note: Includes \$10k for additional monitoring software.	\$50k	● 11k	● 22k	● 5k	● 5k	● 2k
b	Specify, select, and implement an ICT Service Desk (Help Desk) System.	\$100k	● 22k	● 22k	● 7k	● 7k	● 7k

## SM-03: Leading practice processes

Leading practice ICT Service Management processes will be used to meet the service level and availability needs of the organisation and other external service consumers.

To maintain the Business Systems and Applications and infrastructure effectively, there is a need for appropriate ICT Service Management processes. These processes shall be designed, documented and implemented using leading-practice methodologies and contemporary standards such as ITIL and or ISO 20000

**Outcomes Sought:**

- Improvement in service capability
- Information Technology service is provided though contemporary standards

Actions		Indicative budget	Timeframe /Staff Resource Cost (year commencing 1 July)				
			12/13	13/14	14/15	15/16	16/17
a	Conduct a Gap analysis of ICT Service Management Processes against ISO 20000 or ITIL. This is phase 1 of an ICT service improvement Project.	\$35k	● 11k	● 22k	● 2k		
b	Implement leading-practice ICT Service Management resolution and service delivery processes. It includes purchasing publications and training ICT Staff. This is Phase 2 of an ICT service improvement Project.	\$45k		● 22k	● 11k	● 11k	
c	Implement leading-practice ICT Service Management control and relationship processes. It includes purchasing publications and training ICT Staff. This is Phase 3 of an ICT service improvement Project.	\$45k		● 22k	● 11k	● 12k	

## APPENDIX 1: HARDWARE LIFECYCLES (REPLACEMENT SCHEDULE)

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ICT hardware will have a defined life and should be replaced in line with the table below, which is aligned with the Asset Management Policy. Where possible, hardware warranty or maintenance contracts will be aligned to the defined life of each item.

Hardware Item and Associated Software	Lifecycle (Years)
Mobile Phone	2
Notebook PC	3
Desktop PC <sup>3</sup>	3
Tablet PC	3
Server	5
Storage - SAN/NAS	5
CCTV (IP) Camera	5
Network Router	5 <sup>4</sup>
Network Switch	5 <sup>5</sup>
Plotter	5
Printer - including Multi-Function Device	4 <sup>6</sup>
Scanner	5
Tape Drive or Library	5
Telephony System	5
Rack	15
Uninterruptible Power Supply (UPS) <sup>7</sup>	10

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<sup>3</sup> Annual desktop replacement program includes displays – ideally 1/3 of the desktop fleet should be replaced each year

<sup>4</sup> Based on network provider leasing arrangement

<sup>5</sup> Based on network provider leasing arrangement

<sup>6</sup> Based on leasing arrangement

<sup>7</sup> UPS Batteries need to be replaced every three years or as runtime life deteriorates