

Shire of Dalwallinu



Information & Communication Technology (ICT) Strategic Plan 2022 - 2027

Adopted by Council 27 September 2022

Shire of Dalwallinu

58 Johnston Street

(PO Box 141)

DALWALLINU WA 6609

Telephone: 08 9661 0500

Facsimile: 08 9661 1097

Email: shire@dalwallinu.wa.gov.auWebsite: www.dalwallinu.wa.gov.au

Contact: Chief Executive Officer

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Executive Summary

The Shire of Dalwallinu 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 Shire of Dalwallinu has undertaken to put in place a number of Strategic and Business Plans to deliver short, medium, and long term objectives. The ICT Strategic Plan makes up one of these strategic plans that form the IPR Framework. The Shire of Dalwallinu is providing committed strategic planning and leadership, focused on strengthening our community, providing growth, and diversifying the local economy.

Information & Communication Technology (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 the Shire of Dalwallinu operates and delivers services. ICT has and will continue to play a key role in how we operate as a business as we look to leverage technology to provide more efficient and effective services to our Community and stakeholders.

ICT services are presently provided to approximately 28 full time, part time, and casual employees across our Administration, Works Crew, Dalwallinu Discover Centre and Dalwallinu Swimming Pool, 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 Shire of Dalwallinu

Risk Management

Risk Category	Description	Rating (likelihood x consequence)	Mitigation Action
Financial	Lack of investment into ICT	Possible (3) x Moderate (3) = High (9)	ICT Strategic / forward planning involving stakeholders to determine needed and desired current and future outcomes that can be budgeted for.
Health & Safety	EOL/less than OSH/WSH ideal ICT hardware and prolonged machine noise exposure	Possible (3) x Moderate (3) = High (9)	EOL hardware replacement decisions to consider OSH/WHS requirements. Suitable placement or enclosures for noisy ICT gear such as servers and switches.
Reputation	Slow take up of new technologies	Likely (4) x Minor (2) = High (8)	ICT Team continuing to engage with Shire stakeholders, 3 rd party vendors, and other councils re: current and emerging technologies and methods of delivering desired services.
Service Interruption	Cyber Attack	Likely (4) x Major (4) = Extreme (16)	Effective utilisation of firewall and anti-virus software (regular updates) Staff education Effective user authentication
Service Interruption	Prolonged loss of internet	Possible (3) x Moderate (3) = High (9)	Identification of single- points-of-failure and the implementation of suitable fail-over devices and processes.
Service Interruption	Underinvestment in ICT	Likely (4) x Medium (3) = High (12)	ICT Strategic / forward planning involving stakeholders to determine needed and desired current and future outcomes that can be budgeted for.
Compliance	No strategic direction established for ICT	Possible (3) x Moderate (3) = High (9)	ICT Strategic / forward planning involving stakeholders to determine needed and desired current and future outcomes that can be budgeted for.
Property	ICT asset management, accountability, security, disposal & replacement	Possible (3)x Moderate (3) = High (9)	ICT managed asset register/database established for the Shire's ICT assets including mobile devices.
Environment	Visual, RF, and potential community concerns re: impact of ICT infrastructure including antennae, towers, wifi & mobile boosters, microwave dishes, CCTV placement and solar backed battery installations, on the local environment.	Likely (4) x Minor (2)= High (8)	Utilising vendors and providers to advise, install, and maintain suitable equipment that is not only in keeping with best practices but also minimises any undesired impacts on the local environment.

Current Business Systems & Applications

Business systems and applications includes the core business system, currently Synergy Soft, the Microsoft (MS) Office suite and other ad hoc applications and server operating systems.

Synergy soft (vendor is IT Vision) is the main business system utilised by the Shire of Dalwallinu. Synergy soft is currently utilised for all financial functions, central records, customer service, desktop mapping, health, building and town planning.

IT Vision have been servicing local government in Western Australia for over thirty years. The current Synergy soft System has been utilised for the past fifteen years and is now due for replacement. IT Vision are replacing Synergy soft with a new cloud-based system called Altus. This will result in the Synergy soft system being phased out in the short term. Consequently, the Shire of Dalwallinu must review its position and decide on the future of its main business system.

Microsoft Office

The Shire of Dalwallinu is currently utilising Microsoft Office 365 for all Outlook Emails and is upgrading from Microsoft CSP M365 Business Basic to Microsoft 365 Business Premium in the 2023 FY.

The Shire of Dalwallinu currently holds 27 basic licences to provide both in-house and cloud/global access to current and standard office products including Word, Excel, Teams collaboration/communications, and Email.

Ad Hoc Applications

The Shire has a portfolio of applications, some of which are SaaS (Software as a Service). The acquisition of these is usually user driven. It is not the role of ICT to adjudicate on a user's need for a particular application. ICT does not have the capacity or expertise to provide user support and network communication constraints need to be considered. Appropriate governance is in place for acquisition decisions.

Some of these systems include

- RAMS – Roads Asset Management System
- SIMply Data - Vehicle tracking
- Creative Cloud Indesign – Via Adobe package for document design.
- Amlib – Library software

Server Operating Software

The primary physical server is running Hyper-V via Windows Server 2019 operating system to host and manage a suite of virtual machines/servers that provide Shire services.

These include:

- The Active Directory, Domain Name System, and File server running Windows Server 2019
- The SynergySoft database server. Windows Server 2019.
- The Web server is running Windows Server 2019

Backups of Shire servers and data technology:

- Hybrid backup approach with a local appliance as the first point for restores and virtualizations, and a site locality separate server for immediate Disaster Recovery failover for selected servers.
- Block-level backup technology that continuously tracks and stores incremental changes in data
- Advanced verification technology and multiple processes to test backups and ensure validity.
- End-to-end, always-on encryption to continually protect data at rest and in transit

Infrastructure

The Shire has infrastructure consisting of network communications, ICT hardware and telephone System.

Network Communications

Infrastructure Network communications currently utilises an enterprise grade 100Mb and 4G internet connections, point-to-point (PtP) radio links between sites and a SIP (Session Initiation Protocol) enabled telephone connection. The network has been expanded to address immediate user needs however a more considered approach is now appropriate. A network communications infrastructure plan is yet to be developed but is considered critical to future development. The plan will assess existing infrastructure, forecast future demand, and design a network to meet that demand and provide a sufficient level of redundancy. The assessment of existing infrastructure will include availability and reliability of internet communications that will be critical to business systems and applications and disaster recovery.

Infrastructure ICT Hardware

Equipment is replaced according to needs and age and the ICT Team has created, implemented and maintains an extensive ICT related register/database which includes servers, workstations, network/comms equipment, mobile devices, fixed telephony and printers. However, there is no formal policy relating to ICT asset management. An ICT asset management plan will guide both hardware and software investment and renewal and the asset management plan needs to include the CCTV network. The main server and storage is located at the Administration Centre (58 Johnston St). Other locations have task specific devices such as local CCTV recording/capture/control stations. Storage in the main server was recently increased (May 2021) to help alleviate performance/resource issues with SynergySoft access and server requirements are expected to change significantly with the continued uptake of SaaS and ongoing migration to cloud based services such as Altus and Sharepoint. The Shire's Discovery Centre have network, comms, telephone, and workstation monitored and maintained by our offsite IT Support.

Telephony

The telephone system was replacement in 2022 and the Shire now uses NBN for their phone system. Mobile devices are currently well utilised to assist staff in the field.

Data and Systems Security

The Shire will develop, implement, and continually review a set of policies and procedures that covers the protection of the access to ICT systems and services. These policies should cover both the protection of data to ensure internal confidentiality, but also protect it from external cyber threats.

Business Continuity

Continuity

Much of the following can also be considered additional detail to the Infrastructure: “Network Communications” section of this document.

The Shire’s current business continuity / DR options from an ICT point of view include:

- Fail-overs to 4G in the event of loss of fixed line NBN. This maintains access to the internet.
- Manual and auto fail-over or redirection capabilities to mobile in the event of fixed phone service interruptions.
- UPS (Uninterrupted Power Supply) devices to suit typical individual site requirements in the event of short period power outages.
- Shire generator that runs the Admin building in the event of an extended power outage.
- A more mobile work force with policies, processes, and equipment established (and tested) to enable extended “working from home” type situations.
- Multiple forms and levels of data backups.

All of the above options have been put to and passed the test over the last year, both deliberately, and because various situations required it

Security

The Shire currently does not have a formal cybersecurity plan and relies primarily on its firewall and anti-virus software. Information to help staff stay safe on-line is shared periodically across the organisation. A formal cybersecurity risk assessment and plan will be developed using a recognised framework followed by periodic penetration testing. The opportunity to utilise multi-factor user authentication will be investigated.

Regarding current physical security of ICT equipment, the Shire’s main physical server is secured in a locked comms room in the Admin building and the server at the Recreation centre is also in a locked comms room.

ICT Actions

The Shire of Dalwallinu is utilising a baseline for the Shire’s ICT Strategic Framework as recommended by the Department of Local Government, Sports & Cultural Industries.

The framework has the following 7 elements:

- Governance
- Emerging Trends and Technologies
- Business Systems and Applications
- Infrastructure and Technology
- Disaster Recovery
- Security
- Project Management

The table below identifies the key items that are required as part of the Strategic Framework, including review dates or the date of expected completion or adoption.

Governance					
ICT decisions and operations within the Shire will be controlled and guided through a formalised ICT Governance framework. This framework will ensure the alignment of ICT activities with business priorities.					
Item	2022/23	2023/24	2024/25	2025/26	2026/27
ICT Strategic Plan	Review	Review	Review	Review	Review
Annual Operating Plan (Budget)	Review	Review	Review	Review	Review
Service level agreements	Adopt	Review	Review	Review	Review

Emerging Trends and Technologies					
ICT policies and procedures need to be current enabling the organisation to conduct considered reviews of emerging technologies and trends, to ensure they meet current and emerging needs of the organisation.					
Item	2022/23	2023/24	2024/25	2025/26	2026/27
Computer & Mobile Device Policy	Review	Review	Review	Review	Review

Business Systems and Applications					
Appropriately managed business systems and applications will help consolidate and streamline business processes.					
Item	2022/23	2023/24	2024/25	2025/26	2026/27
Inventory Register in Place	Review		Review		Review
Replace Core Business System Synergy soft	Review		Review		Review

Infrastructure and Technology					
ICT has extensive assets and services under management. The best value and maximum benefit from this investment can only be obtained if suitably managed.					
Item	2022/23	2023/24	2024/25	2025/26	2026/27
ICT Systems Manual to be developed	Develop		Review		Review
Audit Asset Register	Audit		Audit		Audit

IT Disaster Recovery					
ICT needs to work with the organisation to establish mission critical services and ensure that disaster recovery and business continuity plans meet current and emerging needs.					
Item	2022/23	2023/24	2024/25	2025/26	2026/27
Disaster Recovery/Business Continuity Plan	Review		Review		Review
Test Disaster Recovery Plan	Audit	Audit	Audit	Audit	Audit

Security					
The threat of cyber security incidents continues to rise. The Shire needs to develop and implement security policies and procedures to meet this increasing threat.					
Item	2022/23	2023/24	2024/25	2025/26	2026/27
Develop Cyber Security Policy	Develop		Review		Review
Provide Cyber Security Training	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing

Project Management					
The effective delivery of ICT projects requires a suitable management framework to be implemented.					
Item	2022/23	2023/24	2024/25	2025/26	2026/27
Project Management ICT Procedure to be developed		Develop		Review	

Appendix 1: Hardware Lifecycles Replacement Schedule

USER#	Description	Computer ID	Purchased	Main site/desk	Office version	Synergy linked	Replacement Due
ceo	CEO	SODL-DW-DT09	9/01/2020	Admin	2013	YES	2024
ea	Executive Assistant	SODL-DW-DT11	9/01/2020	Admin	2013	YES	2024
spmo	Economic & Community Development Officer	WS44WX64	23/12/2016	DDC	2013	YES	2022
tso	TSO	SODL-DW-DT13	9/01/2020	Admin	2013	YES	2024
AO/MCS	Manager Corporate Services	SODL-DW-DT04	9/01/2020	Admin	2013	YES	2024
sfo	Senior Finance Officer / Rates	SODL-DW-DT15	11/03/2021	Admin	Latest	YES	2025
Various	Spare Computer - For contractor inductions etc.	WS49WX64	2/10/2017	Admin	2013	YES	2023
receipts	Receipting computer	SOD-DW-DT14	11/03/2021	Admin	2013	YES	2025
RAO	Customer Services Officer - Liebe Office	SOD-DW-DT17	31/01/2022	Admin	2013	YES	2026
cso5	Customer Services Officer 5	SODL-DW-DT10	9/01/2020	Admin	2013	YES	2024
CSO6/7	CSO Debtors/Trainee	SODL-DW-DT01	9/01/2020	Admin	2013	YES	2024
mpds	Manager Planning & Development Services	SODL-DW-DT12	9/01/2020	Admin	2013	YES	2024
payroll	Payroll	SODL-DW-DT20	9/01/2020	Admin	2013	YES	2026
mws	Manager Works & Services	SOD-DW-DT19	31/01/2022	Admin	2013	YES	2026
library	Library / Discovery Centre	WS48W764	13/04/2017	DDC	2013	YES	2022
ws	Works Supervisor	SOD-DW-DT18	21/03/2017	Depot	2013	YES	2021
ea	Laptop HP ProBook 450 G6	SODDWLT01	15/08/2019	Admin	2016	YES	2023
	Spare	SODL-DW-DT08	9/01/2020	Admin	2013	YES	2024
Server	HPE - CNX1230QM0		1/08/2021	Admin			2026
Rec Centre		SODL-DLREC				NO	2022
Pool	Laptop ASUS	LP50WX64				NO	2023

USER#	Description	Computer ID	Purchased	Main site/desk	Office version	Synergy linked	Replacement Due
MWS - Laptop	Laptop DELL	SOD-DW-LT02	1/06/2021			NO	2025
Lessee	Caravan Park	WS42W764	28/06/2016	Caravan Pk	2013	YES	
Admin Office	Photocopiers x 2	WS42W764	7/05/2018			N/A	2023

Appendix 2: ICT 5 Year Operational Budget

ICT 5 Year Operational Budget							
Expenditure Item	GL Account	2022/23	2023/24	2024/25	2025/26	2026/27	Total
Synergy Licence	1E1450300	\$46,099.00	\$56,112.00	\$58,076.00	\$60,109.00	\$62,123.00	\$282,519.00
Altus Installation	1E1458050	\$54,571.00	\$53,666.00	\$29,478.00	\$47,602.00	\$0.00	\$185,317.00
Synergy Support ad hoc	1E1450300	\$3,000.00	\$3,090.00	\$3,183.00	\$3,278.00	\$3,376.00	\$15,927.00
AdobeCloud Licence	1E1450300	\$1,663.00	\$1,713.00	\$1,764.00	\$1,817.00	\$1,872.00	\$8,829.00
Microsoft Open Business	1E1450300	\$2,481.00	\$2,555.00	\$2,632.00	\$2,711.00	\$2,792.00	\$13,171.00
Windows Enterprise Software	1E1450300	\$1,168.00	\$1,203.00	\$1,239.00	\$1,276.00	\$1,315.00	\$6,201.00
Windows Office Pro Plus	1E1450300	\$2,442.00	\$2,515.00	\$2,590.00	\$2,668.00	\$2,748.00	\$12,963.00
Website Support Council Connect	1E1451170	\$9,170.00	\$9,445.00	\$9,728.00	\$10,020.00	\$10,321.00	\$48,684.00
Photocopier Expenses Lease	1L9304100	\$6,085.00	\$6,390.00	\$6,390.00	\$6,390.00	\$6,390.00	\$31,645.00
Antivirus Licence	1E1450300	\$1,732.00	\$1,784.00	\$1,838.00	\$1,893.00	\$1,950.00	\$9,197.00
Backup Disaster Recovery Software	1E1450300	\$1,285.00	\$1,324.00	\$1,363.00	\$1,404.00	\$1,447.00	\$6,823.00
Cloud Storage	1E1450300	\$5,770.00	\$5,945.00	\$6,123.00	\$6,307.00	\$6,496.00	\$30,641.00
Upgrade Servers	1E1458050	\$12,250.00	\$0.00	\$15,000.00	\$0.00	\$13,000.00	\$40,250.00
External Support Domain	1E1450300	\$22,800.00	\$23,480.00	\$24,190.00	\$24,920.00	\$25,700.00	\$121,090.00
Upgrade workstations	1E1450300	\$8,000.00	\$8,240.00	\$8,500.00	\$8,755.00	\$9,020.00	\$42,515.00
Office internet	1E1450300	\$1,418.00	\$1,460.00	\$1,510.00	\$1,555.00	\$1,600.00	\$7,543.00
Telephone, NBN, Mobiles	1E1451200	\$13,397.00	\$13,798.00	\$14,212.00	\$14,639.00	\$15,078.00	\$71,124.00
Telephone 3CX Support	1E1451200	\$3,928.00	\$4,046.00	\$4,167.00	\$4,292.00	\$4,421.00	\$20,854.00
Misc. Hardware	1E1450300	\$1,670.00	\$1,720.00	\$1,770.00	\$1,825.00	\$1,880.00	\$8,865.00
Total Expenditure		\$198,929.00	\$198,486.00	\$193,753.00	\$201,461.00	\$171,529.00	\$964,158.00
Totals by GL Account							
Account	GL Account	2022/23	2023/24	2024/25	2025/26	2026/27	Total
Computer Operating Expenses	1E1450300	\$99,528.00	\$111,141.00	\$114,778.00	\$118,518.00	\$122,319.00	\$566,284.00
Subscriptions	1E1451170	\$9,170.00	\$9,445.00	\$9,728.00	\$10,020.00	\$10,321.00	\$48,684.00
Lease Liability	1L9311200	\$6,085.00	\$6,390.00	\$6,390.00	\$6,390.00	\$6,390.00	\$31,645.00
Capital Expenditure - Furniture & Equipment	1E1458050	\$66,821.00	\$53,666.00	\$44,478.00	\$47,602.00	\$13,000.00	\$225,567.00
Telephone, fax, internet	1E1451200	\$17,325.00	\$17,844.00	\$18,379.00	\$18,931.00	\$19,499.00	\$91,978.00
		\$198,929.00	\$198,486.00	\$193,753.00	\$201,461.00	\$171,529.00	\$964,158.00