Town of Port Hedland

Digital Roadmap 2024 - 2027

Prepared For : Florian Goessmann

Prepared By : Mark Birkinshaw, Tony Hickford and Daniel Gaunt

Date : 9/07/2024

Ref : T692

Table of Contents

Table of Contents

Executive Summary

The Town of Port Hedland (ToPH) is at a pivotal point in its digital transformation journey, driven by the need to address several critical challenges in its current IT landscape. The existing IT infrastructure comprises a hybrid mix of on-premises and cloud solutions, with a dedicated data centre and various Microsoft Azure-hosted services. Despite these foundations, the current environment faces significant limitations, including aging hardware, fragmented vendor relationships, security vulnerabilities, and inefficient processes.

The previous IT Strategic Plan is due to be completed by end of financial year 2024. There are 10 initiatives remaining in various stages of completion. Where initiatives are current and ongoing into the new roadmap, they have been included for visibility purposes. Any initiatives from the previous roadmap that will be completed by end of financial year 2024 have not been included.

The Digital Roadmap for 2024-2027 aims to strategically overhaul ToPH's digital capabilities. This roadmap is designed to streamline operations, enhance security, and leverage data-driven decision-making to ensure ToPH's continued growth and success in serving its residents.

Technology One Implementation (OneConnect)

The Technology One (TechOne) system implementation is a major project for the ToPH. It is to replace Synergy Soft as the Enterprise Resource Planning System (ERP). This is a major transformational project and will ultimately redefine the day-today working environment of many within the ToPH. ERPs by their very nature are designed to cover 70% – 80% of the needs of a modern organisation.

The infrastructure changes and initiatives within this Digital Roadmap are there to support the OneConnect project and ensure it has the best chance of meeting its' core aims, rather than being compromised by delivery systems that lack the required reliability, security and efficiency.

The software systems and initiatives within this Digital Roadmap that sit outside of TechOne are designed to augment and improve the functionality of TechOne and its interoperability. TechOne is seen as the system of choice and the first option wherever feasible. Best of breed systems will be required to meet the needs of the organisation that cannot be met by TechOne.

The governance and service delivery initiatives within this Digital Roadmap ensure that the Digital Roadmap, including OneConnect, can be delivered, supported and the benefits fully realised.

Key Drivers for Change

- ✓ **Enhanced Service Delivery:** Streamlining processes, improving communication channels, and providing seamless access to reliable information for residents and staff.
- ✓ **Informed Decision-Making:** Breaking down data silos and integrating disparate systems to enable comprehensive analysis and transparency.
- ✓ **Security and Compliance:** Achieving and maintaining compliance with the Essential 8 cybersecurity framework, safeguarding data through robust governance.
- ✓ **Resource Optimisation:** Reducing manual tasks and system complexities to allow the IT team to focus on strategic initiatives.

Strategic Goals

The roadmap focuses on four main strategic goals:

1. **Enhanced Security and Compliance:** Achieving Essential 8 Maturity Level 1, with aspirations for Level 2. Implementing robust governance frameworks for data integrity, disaster recovery, and business continuity. Adopting a Zero Trust security architecture to enhance overall security.
2. **Streamlined and Efficient Operations:** Modernising IT infrastructure by migrating to the cloud and consolidating systems into unified platforms. Eliminating redundancies and replacing outdated solutions with cloud-based applications. Automating routine tasks to free up staff for strategic initiatives.
3. **Data-Driven Decision Making:** Building a Business Insights platform to aggregate data into a central repository for actionable intelligence. Empowering staff with data analytics tools to foster a data-driven culture. Enhancing resident engagement through digital channels for open communication and feedback.
4. **Resourced and Sustainable Growth:** Optimising internal IT resources through strategic outsourcing and effective project management. Championing a cloud-first approach for scalable and cost-effective solutions. Prioritising change management and communication to ensure smooth transitions and adoption.

Digital Roadmap

The roadmap outlines initiatives categorised under five main areas. The areas and some initiatives are:

1. **Current and Ongoing Initiatives:** Business Process Management, Warranties & Maintenance Agreements, and the implementation of TechOne.
2. **Strategy, Governance and Policy:** IT Disaster Recovery & Business Continuity Planning, Systems Integration Plan, and IT Asset Management Plan.
3. **Business Initiatives:** Implementing solutions for Award Interpretation, Rostering, Time & Attendance, and Customer Relationship Management.
4. **IT Initiatives:** Network redesign, shared drive migration, and strategic review of staff technology.
5. **Security:** Achieving Essential 8 compliance, engaging a Managed Security Service Provider, and implementing cybersecurity policies and awareness training.

Expected Outcomes

By implementing these initiatives, the ToPH anticipates:

- ✓ Stronger business relationships and improved user satisfaction through reliable and responsive IT services.
- ✓ Increased operational transparency and efficiency, leading to reduced costs and enhanced risk management.
- ✓ Proactive problem management and informed decision-making through data-driven insights.
- ✓ A secure and resilient digital environment with a security-aware culture among staff.

Figure 1 outlines the Overall Roadmap and the four main thematic areas.

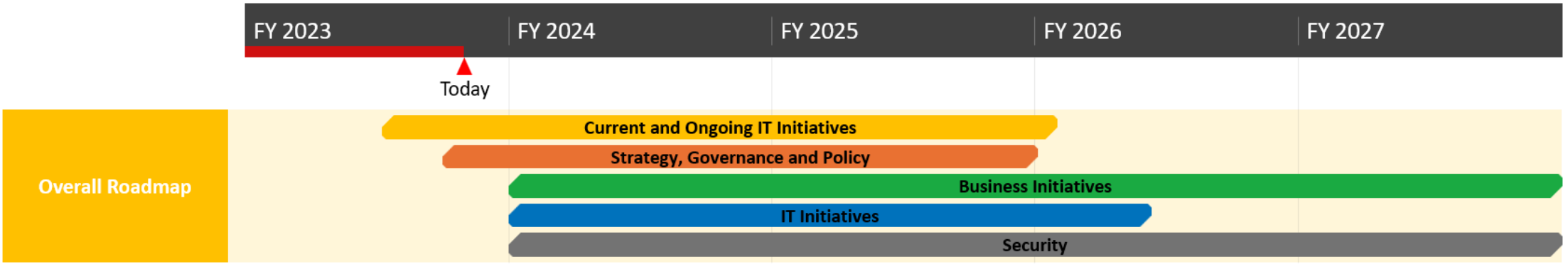


Figure 1 - Overall Roadmap 2024 – 2027 FY

Purpose of this Document

Inform

This provides a summary of information gathered regarding the current technology architecture in place across the organisation. This will include an evaluation of the suitability of individual components, where they can benefit from improvement or replacement and where there are gaps in the technology available. It will also provide guidance on whether new approaches or methods should be utilised, particularly with reference to new or emerging business strategies or directions that are known at this time.

Advise

This will provide a recommendation for what the ideal future state technology architecture should consist of, based upon the information gathered and supplemented with industry trends and best practise, particularly as they relate to the ToPH.

Roadmap

This will provide a GANTT chart illustrating on how the ToPH can transform from current state IT to the desired future state. It will consider known business priorities, identified technology risks and any dependencies that will affect the order in which changes should be carried out.

Whole Document

The aim is that this will provide the ToPH with a tool to plan technology investment over the next 1-4 years. This should be treated as a living document, to be reviewed and changed to follow every new organisational strategic decision.

Inform

Current Business Environment

Background

The Town of Port Hedland (ToPH) is located within the Pilbara Region of Western Australia. The ToPH covers approximately 11,844 square kilometres and is situated roughly 1,800 km North of Perth. Port Hedland is the second largest population centre within the Pilbara Region with approximately 16,000 people living in the Town. The town has two major areas, Port Hedland and South Hedland. The Town is made of up of a combination of residential, commercial, light industrial and heavy industrial areas.

The ToPH is considered a port town with a natural deep anchorage harbour. The Kariyarra people call the place Marapikurrinya, for the hand shaped formation of the tidal creeks coming off the natural harbour. This harbour facilitates the import and export of goods from within Australia and around the World. The major exports from the port are; iron ore, salt, manganese ore, natural gas and livestock. The port is Australia's largest bulk export facility.

Due to the nature of the mining industry and the work in the region, the ToPH has both a permanent and transient population. The transient population is primarily made up of FIFO Workers and Contractors for large mining companies and the support industries that sit around them. The main channel for revenue for the Town is rates, with a large proportion coming from businesses.

The Vision of the ToPH is 'Together, we create a thriving, resilient and inclusive future for our diverse community.' This is accompanied by a Mission statement and Guiding Principles. A total of 372 people work for the ToPH. This is made up of 211 Full Time staff, 29 Part Time Staff and 132 Casual Staff. The ToPH struggles with a high turnover of staff, with 35% being reported for the 22/23 Financial Year. The Strategic Workforce Plan estimates that a minimum growth in staff numbers of 2% year on year is expected. The Council is split up into five main areas; Office of the CEO, Infrastructure Services, Regulatory Services, Community Services and Corporate Services.

The ToPH operates in a total of 11 locations:

- ✓ Civic Centre
- ✓ Depot
- ✓ Gratwick Aquatic Centre
- ✓ JD Hardie Youth and Community Hub
- ✓ Landfill
- ✓ Matt Dann Theatre and Cinema
- ✓ Milpaku Kuma Community Centre
- ✓ Port Hedland Library
- ✓ South Hedland Library
- ✓ South Hedland Aquatic Centre
- ✓ Wanangkura Stadium

Previous ICT Strategy and Roadmap

The ToPH previously created an ICT Strategic Plan and Roadmap. This was to cover the period of 2020 – 2025. This strategy was created to compliment the Strategic Community and Corporate Business Plans. IT had direct and indirect linkage to these plans. Specific actions were required to deliver on the responses identified in each plan.

The ICT Strategic Plan and Roadmap outlined the Vision that was set out:

Vision

The vision for the ICT strategy is to provide a reliable and cost effective IT solution that meets users' needs.

Reliable

- ✓ Stable business systems and network communications
- ✓ Appropriate redundancy to sustain critical functionality
- ✓ Secure against cyberattack

Cost Effective

- ✓ Fit for purpose business systems, equipment and infrastructure
- ✓ Planned migration to proven technologies in accordance with the IT strategy
- ✓ Adherence to the asset management plan

Meeting User Needs

- ✓ Simplified IT experience for all users
- ✓ Community provided with the facilities it is willing to pay for
- ✓ Transactional ease for community and vendors
- ✓ Staff provided with the technology tools they need to effectively and efficiently serve the community.

The strategy to achieve the vision was structured around Business Systems and Applications, Infrastructure, Business Continuity and Security.

Initiatives that were identified to have the greatest direct impact were:

- ✓ Replacement of the core business system SynergySoft
- ✓ Migration to Microsoft 365
- ✓ Clean-up of corporate data
- ✓ Provide free public Wi-Fi at identified Town locations
- ✓ Staff provided with the technology tools they need to effectively and efficiently serve the community.

Figure 2 outlines the IT Strategic Roadmap broken down into the four main thematic areas.

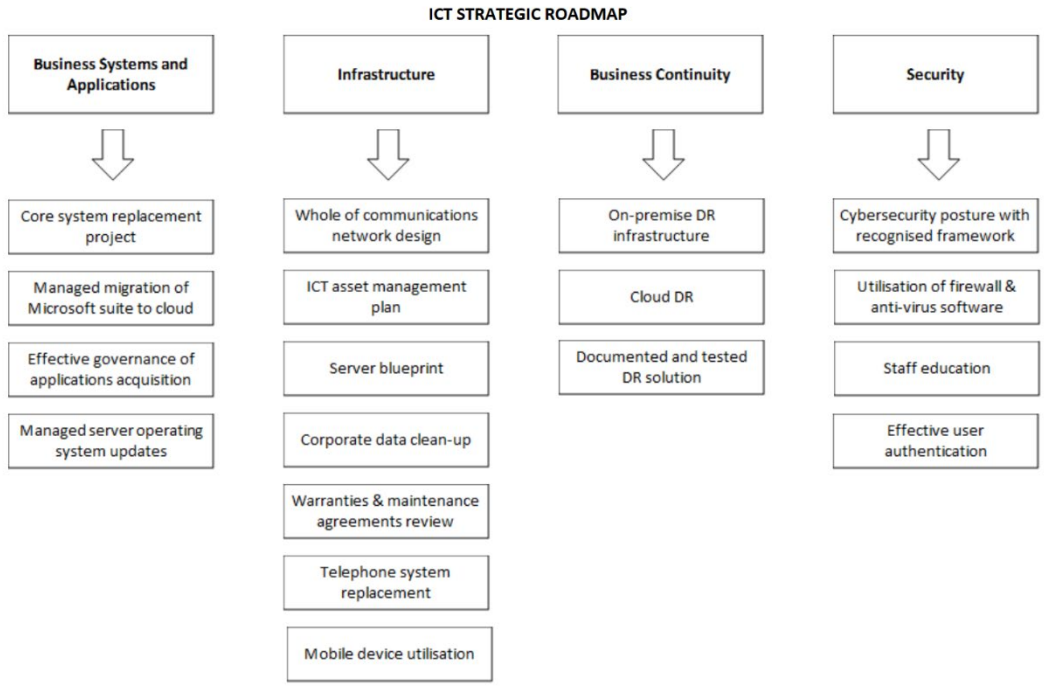


Figure 2 - IT Strategic Roadmap 2020 - 2025

IT Strategy and Roadmap Review

In January 2023 the Manager of IT and Program Delivery conducted a review of the IT Strategy and Roadmap. This provided an update on the progress of the 18 initiatives two years into the strategic plan.

This review provided an update on the progress and status of the IT initiatives:

- ✓ Six initiatives were completed
- ✓ One initiative was ahead of schedule
- ✓ Eight initiatives were on track
- ✓ Two initiatives were behind schedule
- ✓ One initiative was yet to commence

Appendix B - IT Strategy and Roadmap Review outlines in detail the previous initiatives and their status as of January 2023.

Enterprise Asset Management

Asset Management is a very important part of the ToPH's operating and compliance environment. The three main asset classes are: Infrastructure, Land & Building, and Plant & Equipment. This information is audited by the Office of the Auditor General (OAG).

Until 2015 ASETIC was used as the system to record Land, Building and Infrastructure information. This system retained a very high level of detail and allowed the ToPH to provide very accurate report. Between 2015 and 2023, there was a business decision to move away from using ASETIC and start using Synergy Soft. In 2023 there was a business decision to migrate away from Synergy Soft. TechOne replaced Synergy Soft as the system for recording this information. The historical information migrated into TechOne was the ASETIC information from 2015.

Recently the ToPH was re-evaluated by the OAG and failed their Financial Compliance audit. This is a major pain point for the Town and means they are currently non-compliant.

There is a lack of strategy, governance, ownership, and no clear single source of truth. It is not clear who the ToPH believes should own this challenge moving forward.

Technology One (OneConnect)

This project is being undertaken to replace Synergy Soft as the core Enterprise Resource Planning System (ERP). This project has a dedicated team combining the knowledge and skills of internal staff with specialised TechOne consultants, ensuring expertise and efficient project execution. The TechOne project was started in July of 2021, and is expected to be finalised by late 2026.

TechOne is being rolled out using a three phase approach (Releases). This will allow for the modules to be integrated into Business as Usual (BAU) and day-to-day workflows. Release One has now been handed over to IT Support for BAU. Release Two is currently under way and is intended to be completed in the 24/25 FY. Release Three is set to finalise the TechOne rollout and is planned to be completed in the 25/26 FY.

The TechOne project is a core system for the ToPH and is intended to cover between 70% - 80% of the system requirements once implemented. Other industry leading specific products will be implemented around the TechOne system to enhance its capability and interoperability.

The following modules are currently live and being used within the ToPH as Release 1:

- ✓ Finance
- ✓ Supply Chain Management
- ✓ Human Resources
- ✓ Enterprise Budgeting
- ✓ eRecruitment

Modules to be released in the future:

- ✓ Inventory Management (Has not been adopted and needs further work)
- ✓ Go to Market Module
- ✓ Financial Reports
- ✓ Enterprise Asset Management
- ✓ Revenue Management
- ✓ Property and Rates
- ✓ Policy and Compliance
- ✓ Field Application development
- ✓ Process Automation
- ✓ Performance Planning
- ✓ Talent and Succession

Gaps TechOne cannot fill:

- ✓ Payroll - Award Interpretation and Rostering
- ✓ Geographic Information Solution

Figure 3 outlines the modules that have been rolled out and have been handed over to IT Support for Business as Usual.

Figure 4 outlines the modules that are expected to be delivered in the 24/25 FY.

BAU Modules > Release 1 > 1/7/24 > IT Support

Finance
- General ledger
- Asset Accounting
- Banking
- Accounts Payable
- Cost Centre Management

HR
- Organisational Management
- Workforce Management
- eRecruitment
- Payroll

Enterprise Asset Management
- Financial Asset Management
- Work Order Management
- Project Lifecycle Management

Supply Chain Management
- Inventory Management
- Purchasing
- Contracts

Figure 3 - TechOne Implementation Release 1 – Modules handed over to Business as Usual

Release 2 – Property and Rating > ERP Project

Revenue Management
- Debtors Management
- Enterprise Cash Receipting
- Billing

Property & Rates
- Request Management
- Property & Land Management
- Name Management

Policy and Compliance
- Developer Applications
- Permits and Licenses
- Enforcements
- Certificates
- Leases and Licenses
- Cemeteries
- Policy
- Infringement Management
- Animal Management

Enterprise Content Management
- Document Management
- Records Management

Spatial Mapping
- Assets

Figure 4 - TechOne Implementation Release 2 – Modules expected to be Released in the 24/25 FY

Current Business Technology

The ToPH business technology runs on a hybrid mix of on-premises and cloud solutions. A dedicated data centre houses the core server infrastructure, while Azure hosts M365. While Microsoft Defender and phishing awareness training provide some security, a Veev Group review found gaps in compliance with ISO/IEC 27001 and made priority recommendations for improvement. The report also made recommendations around the Essential 8 Framework and how this could be addressed.

The network faces issues with ageing equipment, limited access controls, and missing logging capabilities, as identified by an ES2 audit. Overall, the Town's IT environment has potential, but strategic upgrades and a focus on enhanced security are crucial to achieve optimal effectiveness and resilience.

The ToPH's digital landscape supports a diverse workforce of approximately 250 users across 11 locations, ranging from bustling civic hubs like the Civic Centre and Stadium to vital community facilities like the Wanangkura Stadium and South Hedland Library. End users access essential systems through a fleet of 330 desktop and laptop computers and 90 mobile devices, ensuring connectivity and productivity wherever their roles take them.

Currently there is no documented Enterprise Architecture information within the ToPH.

IT Infrastructure and Environment

Data Centre

The heart of the Town's IT infrastructure lies within the Civic Centre, housing a computer room equipped with racked servers, mini-PCs for remote access to Synergy Soft, UPS systems, redundant power rails, and efficient air-conditioning. A backup generator is available during the cyclone season and is decommissioned at all other times. Secure on-site tape storage via Dell EMC ML3 Tape Library is complemented by offsite tape backups.

The Disaster Recovery strategy relying on failover to the Depot data centre faces potential roadblocks: Conflicting information regarding available compute capacity, lack of a documented test plan, and untested failover procedures raise concerns about swift recovery in case of significant incidents.

Tenancy

The Town leverages an Azure tenancy to host M365 F3 and E5 subscriptions, deploying functionality including the productivity suite, Exchange/Outlook, OneDrive and SharePoint for files and content, Teams for meetings and voice, and Microsoft Intune for device and app management. Privileged identity management is also being rolled out within this secure cloud environment.

Service Management Practices

Currently, Microsoft's ITSM360 serves as the Town's service management toolset, featuring a limited Configuration Management Database (CMDB), incident management, basic change management, and a minimal knowledge base. Onboarding and offboarding remain manual and communication challenges exist.

Application Server Environment

There are 6 physical servers including storage arrays. There is a hosted VMware environment containing approximately 65 Virtualised Servers making up the majority of the on-prem enterprise applications. These include the Dell storage arrays, shared drives, domain controllers, email infrastructure, the Integrity building management system with RFID access control, CCTV, and public Wi-Fi. Notably, these physical servers are nearing their warranty expiry in 2024, prompting the need for strategic evaluation and potential modernisation.

Standard Operating Environment and Microsoft Intune

The ToPH employs a combination of System Centre Configuration Manager (SCCM) and a hybrid Microsoft Intune / Group Policy Object approach for managing its Standard Operating Environment (SOE). While Microsoft Intune takes the lead for managing all newly acquired computers, legacy machines continue to rely on SCCM. Currently a majority of computers are managed using SCCM. Internal staff overseeing the Microsoft Intune process and XCy handle SCCM management.

IT Service Management, Support and Project Works

Technology Staff Numbers

The Town's IT service management and support function operates with a lean team. This team is overseen by the Manager of IT and Program Delivery. Positions are a combination of onsite, remote and hybrid depending on roles and responsibilities. The ToPH struggles to recruit and retain skilled staff to provide the services required.

The current positions allowed for in the budget are:

- ✓ Manager IT and Program Delivery: Onsite
- ✓ Project Manager of IT Systems: Onsite (Fixed term contract)
- ✓ Senior IT Officer: Onsite
- ✓ IT Officer: Onsite or Remote
- ✓ IT Officer: Onsite
- ✓ IT Support Officer: Onsite
- ✓ IT Officer Trainee: Onsite

Managed Service Provider (MSP)

The Town currently utilises XCy IT Solutions (XCy) as its primary MSP, relying on their expertise for:

- ✓ **Incident escalation:** XCy acts as a second line of support, addressing complex or escalating technical issues beyond the initial troubleshooting by internal staff.
- ✓ **High-level network issues:** XCy manages and troubleshoots advanced network problems, ensuring reliable connectivity and data flow.
- ✓ **Server patching and upgrades:** XCy ensures timely and secure patching and upgrades for the Town's server infrastructure, minimizing vulnerabilities and downtime.
- ✓ **Backup maintenance:** XCy oversees the proper functioning and integrity of the Town's backup systems, protecting critical data in case of emergencies.
- ✓ **Network monitoring:** XCy proactively monitors the Town's network infrastructure for potential issues and performance bottlenecks, allowing for preventive maintenance and optimized operation.
- ✓ **SCCM environment:** XCy SCCM environment, deploying software updates and configurations across the Town's legacy devices.

The current support agreement is coming to an end between XCy and the ToPH. They are exploring all possibilities to best support IT across the organisation.

Project Works

The ToPH has numerous IT projects all running concurrently. This approach to project delivery emphasises a blend of internal expertise and external partnerships. While minor improvements and routine works are handled by the internal technology team, larger projects utilise a combined approach. The Project Manager of IT Systems oversees the implementation of new systems.

For all projects the IT Team is using the change management framework that has been adopted by the ToPH. The IT team have tailored the change management framework to suit the IT project space. This tailored approach is used consistently across the projects that are managed under Project Manager of IT Systems.

The current IT projects are:

- ✓ Award Interpretation, Rostering, Time and Attendance System
- ✓ Business Process Management
- ✓ Corporate Data Cleanup
- ✓ Leisure Management System
- ✓ Managed Server Operating System Updates and Server Blue-Print: Decommissioning Onsite Servers
- ✓ Moving from SCCM to Microsoft Intune
- ✓ IT Service Management Tool: Freshservice
- ✓ Venue and Event Management System
- ✓ Warranties/Maintenance Agreements Reviews
- ✓ Workplace Health and Safety System
- ✓ EFT & Account Verification
- ✓ Social engagement application (PinPoint) for Communities directorate

These projects are in varying stages of progress.

IT Management and Security

Cyber Security

The Town of Port Hedland leverages a multi-pronged approach to cyber security:

- ✓ **Antivirus Software:** Microsoft Defender, readily available within the E5 licensing, acts as the primary line of defence against virus and malware threats. XCy conducts weekly checks of Defender to ensure its optimal functionality.
- ✓ **Employee Training and Awareness:** Recognising the crucial role of human vigilance, the ToPH utilises the phishing awareness training modules included in the E5 licensing, educating employees to identify and avoid suspicious emails and online tactics.
- ✓ **Multi-Factor Authentication (MFA):** MFA is deployed throughout the ToPH environment to add an extra layer of security beyond passwords. Single-factor authentication remains in place for users physically connected to the network.
- ✓ **Licensing:** The Town relies on Microsoft E5 licensing for a comprehensive suite of security and productivity tools.

Domain Hosting

The DNS is hosted by ORRO. The domain is managed by a WA State Government entity.

Single Sign-On (SSO)

While SSO implementation is progressing, within the ToPH environment. The rollout limitation is associated with the on-prem Active Directory. The IT team is actively working to expand SSO access, aiming to configure all eligible applications for SSO by February 2024. This initiative will streamline user access and enhance security by eliminating the need for multiple passwords.

Password Management

The Town embraces secure password management through 1Password. This platform facilitates encrypted storage and sharing of passwords, improving accessibility and minimising the risk of unauthorised access. Additionally, dedicated vaults are set up for specific business areas, furthering data security and access control.

Lastpass is also currently in use by individuals within the ToPH. This will be phased out with the rollout of the 1Password platform.

IT Business Systems

The ToPH of a total of 223 business applications across the organisation. These range from large core business systems all the way down to small individual user applications. The business system landscape is complicated and has a number of applications overlapping each other.

Currently there are initiatives underway to harmonise and streamline the technical landscape. This included with the future state initiatives for 2024 – 2027 will provide a risk reduced environment and efficiencies.

The current core systems include, but are not limited to:

- ✓ Microsoft 365 Environment (Email, Messaging, Telephony, Video Conferencing, File Sharing, Cyber Security, Office Suite etc)
- ✓ OneCouncil by TechnologyOne
- ✓ Synergy Soft (Legacy and being phased out)
- ✓ ELMO Learning Management System
- ✓ Intramaps GIS (outdated system and not suitable)
- ✓ Links Modular Solutions (Leisure Management System)
- ✓ WHS Management System
- ✓ Harboursoft Agenda Management
- ✓ Attain Delegation Management
- ✓ Camms Risk and Strategy Management
- ✓ Aconex Construction Project Management

IT Asset Management

In 2023 the ToPH engaged Moncrieff to conduct an IT Asset Audit of all devices. This was to compliment the existing register maintained by the ToPH. The audit recorded such information as; ID, asset type, asset state, location, condition, and device information.

The audit revealed the following about the ToPH IT asset landscape:

- ✓ Total of 786 devices council wide
- ✓ 466 computing devices: Desktop/IoT/Laptop/Mobile Device etc
- ✓ 195 hardware devices: Desk phones/Printers/Scanners etc
- ✓ 125 network devices: Access points/Modem/Router/Switch etc

The ToPH are currently using ITSM 360 for internal IT Asset Management. Although limited in its scope, it is currently serving its purpose.

Refer to ***Appendix E - Asset Management Information*** for further information.

Cyber Security Review

The ToPH commissioned the Veev Group to conduct a comprehensive review of its cybersecurity practices, evaluating compliance against the ISO/IEC 27001 standard. As part of this review Veev Group also provided recommendations against the Australian Cyber Security Centre's (ACSC) Essential Eight (E8) framework. The resulting report, delivered in April 2023, detailed findings and recommendations regarding the ToPH's cybersecurity posture.

Current Compliance Level

The review assessed the ToPH's current cybersecurity posture and determined a low to medium level of compliance with the ISO/IEC 27001 standard. Consequently, the overall level of protection against cyber threats was deemed commensurate with this compliance level.

Figure 5 provides a high-level overview of the compliance assessment mapped against key areas of the ISO/IEC 27001 standard.

Figure 1: ISO27001 Compliance by Section

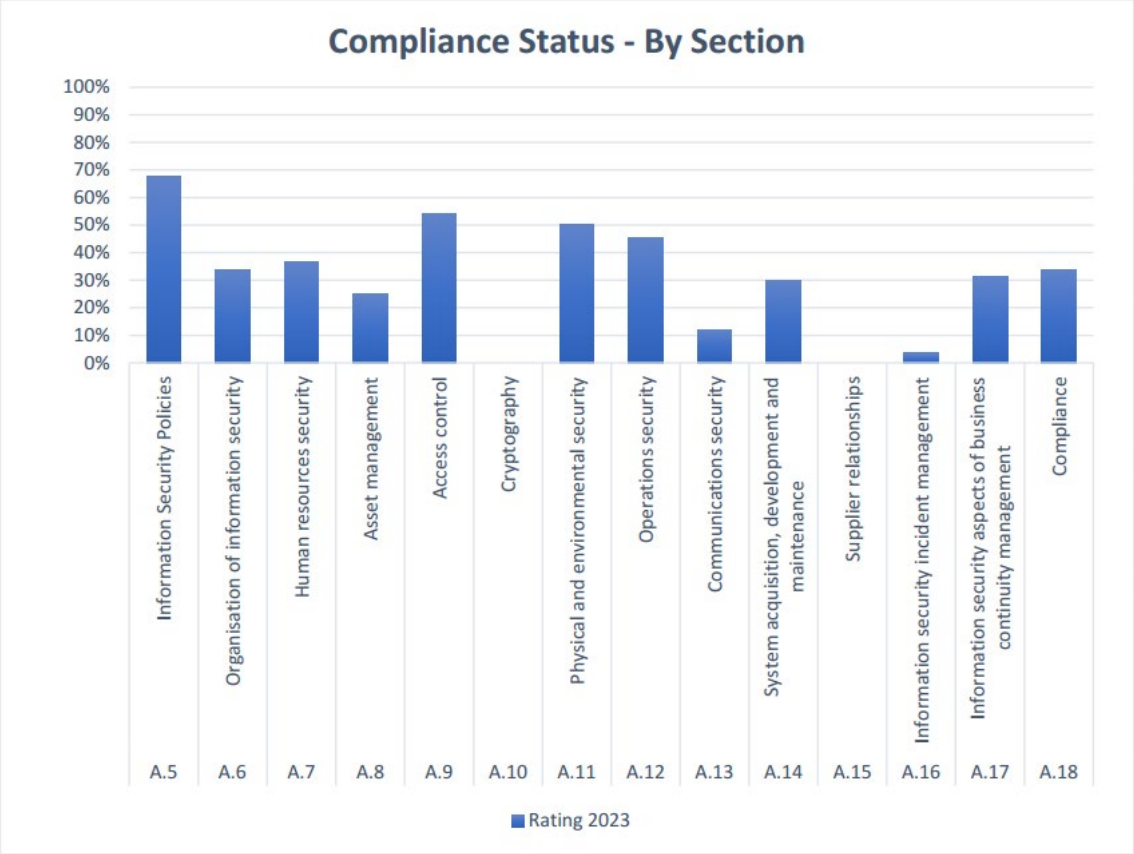


Figure 5 - ISO 27001 Compliance by Section

Figure 6 illustrates the maturity level for each mitigation strategy area within the Essential Eight framework.

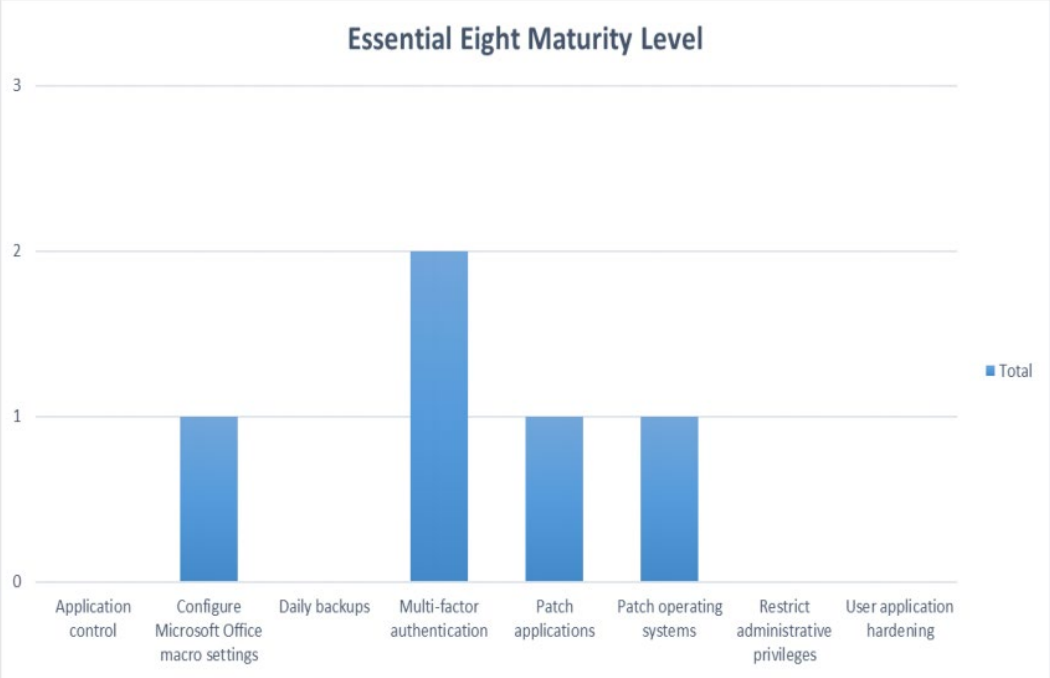


Figure 6 - Essential Eight Maturity Levels

Identified Gaps and Recommendations

While the review acknowledged the implementation of numerous positive security practices, the overall compliance with ISO/IEC 27001 was estimated at 30%. Veev Group provided a set of actionable recommendations to address identified gaps and enhance the ToPH cybersecurity posture.

Prioritisation of Recommendations

The Veev Group report presented a prioritised list of recommendations to guide the ToPH in formulating a business case and implementing key cybersecurity improvements. This prioritisation emphasises:

- ✓ **Formalising and Implementing a Cyber Security Incident Management Procedure:** The creation, approval, and training on a documented cyber security incident management procedure is crucial to ensure a coordinated and effective response to security breaches.
- ✓ **E8 Implementation Focus:** Prioritise implementing the recommendations aligned with the E8, particularly those pertaining to Application Control, User Application Hardening, Restricted Administrative Privileges, and Daily Backups.
- ✓ **Device Encryption:** Implement comprehensive encryption for all mobile devices, PCs, and laptops to safeguard sensitive data stored on these endpoints.
- ✓ **Cloud Security Guidelines:** Develop a Cloud Computing Policy and establish clear guidelines for conducting security assessments during technology procurement and project execution involving cloud solutions.
- ✓ **Regular Vulnerability Testing:** Regularly conduct penetration testing and internal vulnerability assessments to identify and address system weaknesses in technical configurations and operating practises.

Network Review

The ToPH commissioned ES2 to conduct a comprehensive audit and review of its network infrastructure in 2023. This assessment encompassed client routers, switches, firewalls, and carrier termination links, offering valuable insights into the network's current state and potential vulnerabilities.

Actionable Recommendations

The ES2 report outlined 13 key recommendations for network improvement, with seven classified as high priority and three categorised as medium priority. To facilitate prioritization and implementation, these recommendations have been categorised based on target areas.

Figure 7 outlines the recommendations by priority level.

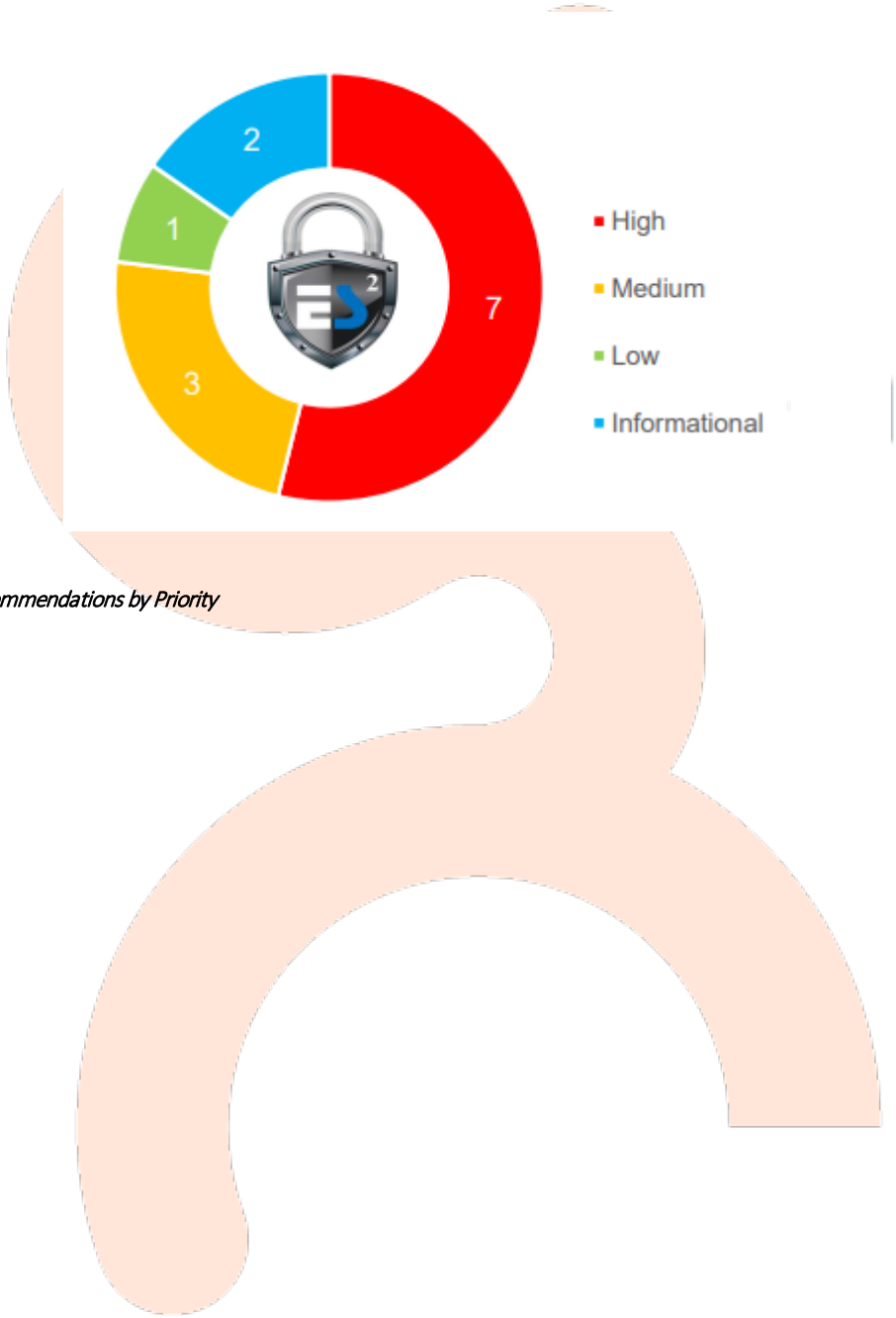


Figure 7 - Recommendations by Priority

Key Observations

The review identified several critical areas requiring attention:

- ✓ **Ageing hardware:** Many ToPH network devices are no longer supported, posing potential security risks and functional limitations. Replacing outdated equipment is a high priority to ensure reliable and secure network operation.
- ✓ **Multiple Vendor Equipment:** The current infrastructure uses multiple vendors for the networking equipment. Finding a single vendor who can provide all networking solutions is highly recommended.
- ✓ **Unrestricted access:** The existing network lacks administrative access segmentation and robust access control rules, potentially exposing it to unauthorised access and misuse. Implementing role-based access control and segmenting administrative privileges is crucial for enhanced security.
- ✓ **Logging limitations:** The absence of a centralised logging server hampers effective security monitoring and forensic analysis. Establishing a remote logging and storage solution is essential for capturing and retaining vital network activity data.
- ✓ **Missing AAA framework:** ToPH's network currently lacks an Authentication, Authorisation, and Accounting (AAA) framework, limiting control and auditing of user access and privileges. Implementing a robust AAA framework is critical for granular control and user accountability.
- ✓ **Vulnerable LAN ports:** Unsecured LAN ports and the absence of port security controls leave the network susceptible to unauthorised access and malicious activity. Implementing port security measures is imperative to harden the LAN environment.
- ✓ **Open Shortest Path First (OSPF) configuration weakness:** While OSPF routing protocol appears well-implemented, the lack of authentication checks for neighbouring routers creates a potential security vulnerability. Implementing mechanisms to verify neighbouring router authenticity is recommended to mitigate this risk.

Figure 8 serves as visual representation of the ToPH network architecture.

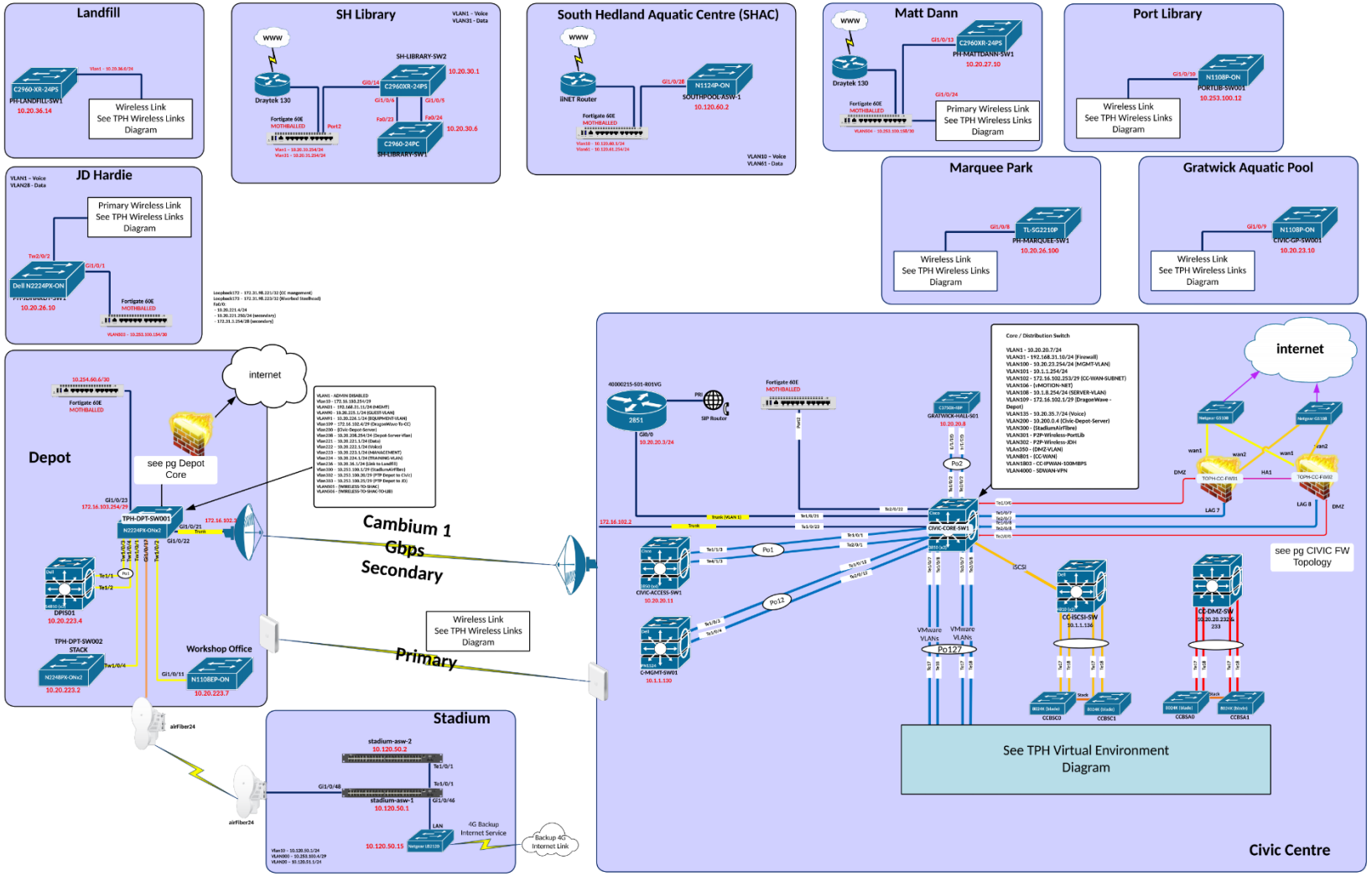


Figure 8 - High-Level Network Diagram

Advise

Business Drivers for Change

The ToPH stands at a critical juncture in its digital evolution. While existing systems have served them well, their inherent complexities, limitations, and inefficiencies increasingly impede the Town's ability to:

- ✓ **Deliver exceptional service:** Residents and staff deserve streamlined processes, enhanced communication channels, and seamless access to reliable information.
- ✓ **Navigate informed decisions:** Data silos and disparate systems hinder comprehensive analysis, limiting transparency and obscuring the path to optimal choices.
- ✓ **Operate securely and compliantly:** Achieving and maintaining Essential 8 compliance and safeguarding data necessitate a proactive approach to cyber security and robust governance frameworks.
- ✓ **Optimisation of resources:** The dedicated team, burdened by manual tasks and intricate systems, struggles to devote their expertise to strategic initiatives.

This Digital Roadmap, charting a course from 2024 to 2027, outlines an ambitious yet achievable vision for a transformed ToPH. By addressing the following key drivers for change, the ToPH will forge a future that embraces efficiency, security, and data-driven insights, laying the foundation for the Town's continued success. The following areas have been addressed in the future state analysis:

1. **Enhanced Security and Compliance:**

- ✓ **Achieving and exceeding Essential 8 Maturity Level 1, with aspirations towards Level 2:** Bolstering the cyber defences against evolving threats and demonstrating best practices in data management, establishing ToPH as a leader in digital security within the region.
- ✓ **Implementing robust governance frameworks:** Establishing clear policies and procedures for data integrity, disaster recovery, and business continuity, ensuring resilience, and mitigating unforeseen risks.
- ✓ **Adopting a Zero Trust security architecture:** Fostering a more secure environment by restricting privileged access and verifying device identity, effectively closing the gates on unauthorised intrusions.

2. Streamlined and Efficient Operations:

- ✓ **Modernising IT infrastructure:** Invigorating the network, migrating to the cloud, and consolidating disparate systems into unified platforms, creating a streamlined digital landscape that empowers both residents and staff.
- ✓ **Rationalising and integrating business systems:** Eliminating redundancies and replacing outdated solutions with cloud-based SaaS applications, fostering seamless data flow and enriching every corner of the Town with accurate information.
- ✓ **Automating routine tasks:** Levering technology to automate tedious processes, freeing up staff time for strategic initiatives and enabling them to focus on driving the Town's progress.

3. Data-driven Decision Making:

- ✓ **Building a Business Insights platform:** Aggregating data from disparate sources into a central repository, transforming raw data into actionable intelligence that guides informed decision-making and illuminates the path forward.
- ✓ **Empowering staff and stakeholders with data analytics tools:** Fostering a data-driven culture by equipping staff with the skills and resources to decipher the digital landscape, empowering them to contribute to informed choices across all levels of the organisation.
- ✓ **Enhancing resident engagement and communication:** Utilising digital channels to cultivate a closer relationship between the Town and its residents, fostering open communication, gathering valuable feedback, and ensuring all voices are heard.

4. Resourced and Sustainable Growth:

- ✓ **Optimising internal IT resources:** Cultivating and retaining a skilled IT team, strategically outsourcing where appropriate, and implementing effective project management practices, ensuring the efficient allocation of resources and the smooth execution of digital initiatives. Once the Digital Roadmap 2024 – 2027 has been approved, the IT Department will need to review roles, responsibilities, capabilities, and resourcing. There is a requirement for greater business analysis and change management capability within the ToPH. The IT Department will be made up of a mix of Residential, Remote and Consulting staff at any point in time. Considering this, a balance needs to be struck between recruiting for current needs/ requirements and developing staff internally.
- ✓ **Championing a cloud-first approach:** Leveraging the scalability and cost-effectiveness of cloud solutions to manage infrastructure and applications, ensuring a sustainable digital future for the Town.
- ✓ **Prioritising change management and communication:** Ensuring successful implementation through comprehensive change management strategies and clear communication with all stakeholders, paving the way for a smooth transition and widespread adoption of the new digital landscape.

This Digital Roadmap is not merely a collection of technology projects; it is a transformative blueprint for the future of ToPH. By addressing these identified drivers for change, the ToPH can create a secure, efficient, data-driven, and sustainable environment. This will facilitate the delivery of exceptional service to our community and ensure the continued prosperity of the Town of Port Hedland, a beacon of innovation and progress in the heart of the Pilbara.

Future Business Technology and Support Services

IT Infrastructure

The Town of Port Hedland's IT infrastructure serves as the backbone of its digital operations, supporting critical services and applications. However, the current environment faces limitations due to ageing hardware, vendor fragmentation, and security vulnerabilities. This section outlines the future state vision for IT infrastructure, aiming to achieve a secure, efficient, and cloud-centric foundation by 2027. By implementing key initiatives like network redesign, server decommissioning, and cloud migration, the ToPH can enhance network performance, strengthen security posture, and increase operational flexibility.

Goals

Building upon the ToPHs existing infrastructure investments, the future state for IT infrastructure aims to achieve the following goals by 2027:

- ✓ **Simplified and Secure Network Environment:** Replace outdated network equipment, consolidate vendors, and implement robust security measures to create a reliable, secure, and future-proof network.
- ✓ **Improved Network Redundancy and Disaster Recovery Capabilities:** Enhance network redundancy and establish a documented disaster recovery plan with tested failover procedures, ensuring rapid recovery in the event of disruptions.
- ✓ **Cloud-based Infrastructure for Core Applications:** Migrate core applications to the cloud, leveraging the scalability, cost-effectiveness, and inherent security benefits of cloud solutions.

Initiatives

To achieve the outlined goals, several key initiatives will be undertaken:

- ✓ **Onsite Server Environment Decommissioning Strategy:** Develop and implement a strategy for the decommissioning of on-premises servers. This strategy will include a timeline for migration of applications to the cloud or alternative hosting solutions.
- ✓ **Network Redesign and Refresh:** Based on the ES2 network audit recommendations, undertake a network redesign and refresh project. This project will prioritise the replacement of ageing equipment, consolidation of vendors, and implementation of robust security measures (segmentation, access controls, centralised logging).
- ✓ **Shared Drive Migration:** Migrate shared drives to a cloud-based file storage solution to improve accessibility, collaboration, and disaster recovery capabilities.

Expected Outcomes

By implementing these initiatives, the ToPH can expect the following outcomes:

- ✓ **Increased Network Uptime and Performance:** Modernised network infrastructure will deliver enhanced performance, reliability, and user experience.
- ✓ **Reduced Risk of Data Loss and Downtime:** Robust disaster recovery capabilities and a secure network environment will minimise the impact of potential disruptions.
- ✓ **Improved Scalability and Flexibility:** Cloud-based infrastructure will provide greater scalability and flexibility to meet the ToPHs evolving needs.
- ✓ **Enhanced Security Posture:** A comprehensive security approach with segmentation, access control, and centralised logging will significantly reduce the attack surface and improve overall security posture.
- ✓ **Reduced Operational Costs:** Cloud-based solutions and network modernisation can lead to cost savings in terms of hardware maintenance, power consumption, and IT staff workload.

This future state vision for IT infrastructure aligns with the identified business drivers for change by addressing the complexity, limitations, and inefficiencies of the current environment. Modernising the network, migrating to the cloud, and prioritising security will empower the ToPH to deliver exceptional service, operate securely, and optimise resources.

IT Service Management

The ToPH recognises the importance of robust IT service management (ITSM) practices in ensuring reliable IT service delivery, user satisfaction, and efficient resource utilisation. While the current IT environment leverages a MSP and internal staff expertise, further optimisation is necessary. This section outlines the key focus areas for the future state of IT service management, aiming to achieve a mature and service-oriented IT organisation by 2027.

Focus Areas:

- ✓ **Stakeholder Engagement:** Implement a comprehensive stakeholder engagement strategy to ensure alignment with business objectives and address user concerns effectively.
- ✓ **Service / Operating Level Agreements and Support Model (SLAs/OLAs):** Establish clear SLAs/OLAs that define service expectations, performance metrics, and responsibilities between internal teams, users any strategic outsourcing undertaken.
- ✓ **Performance Metrics:** Define and monitor key performance indicators to measure the effectiveness and efficiency of IT services.
- ✓ **Incident and Problem Management:** Continue to mature and standardise the process for incident resolution and problem identification, improving downtime and ensuring timely resolution of service disruptions.
- ✓ **Change and Release Management:** Continue to develop a well-defined change and release management process to manage changes to the IT environment effectively and minimise risk.
- ✓ **IT Monitoring:** Proactively monitor IT infrastructure and applications to identify potential issues and ensure optimal performance.
- ✓ **Configuration Management Database and Knowledge Management (CMDB):** Enhancing the existing CMDB to improve and mature the accuracy of the inventory for IT assets and configurations. Additionally, standardise the approach to the knowledge management system to capture and share IT expertise.
- ✓ **Service Catalogue:** Develop a comprehensive service catalogue that documents the IT services offered, their functionalities, service levels, and target audience.
- ✓ **Toolsets:** Evaluate and implement IT service management tools to automate workflows, enhance efficiency, and improve service delivery.
- ✓ **Portfolio Management:** Develop a structured approach to IT project portfolio management, prioritising projects based on strategic alignment and resource availability.
- ✓ **Transition to Support:** Ensure a smooth transition of projects from development to operational support, minimizing disruption and user impact.

- ✓ **Strategic Outsourcing:** Evaluate the optimal balance between in-house expertise and outsourced services to achieve cost efficiency and access specialised skills.
- ✓ **Budgeting and Financial Management:** Develop a comprehensive IT budget based on service needs and project requirements, ensuring efficient resource allocation and financial control.

Initiatives

To achieve these focus areas, the ToPH will undertake the following initiatives:

- ✓ **IT Department Strategic Review:** Conduct a comprehensive review of the IT department's structure, roles, and responsibilities, aligning them with future state goals.
- ✓ **Strategic Review of Staff Technology, Innovation and Education:** Evaluate current staff training and development programs to ensure skillsets align with evolving needs of an organisation increasing its digital capabilities. Develop a plan to bridge any skill gaps and foster a culture of innovation.
- ✓ **IT Business Systems Steering Committee:** Establish an IT Business Systems Steering Committee comprised of senior business and IT leaders to oversee IT strategy, project prioritisation, and service delivery alignment.

Goals

By focusing on these areas and implementing the proposed initiatives, the ToPH aims to achieve the following key goals:

- ✓ **Enhanced User Experience:** Deliver reliable, responsive, and user-centric IT services that meet the evolving needs of stakeholders.
- ✓ **Improved Service Efficiency:** Standardise IT processes, automate workflows, and utilise performance metrics to optimise service delivery and resource allocation.
- ✓ **Increased Business Agility:** Enable the organisation to adapt to changing business needs by promoting collaboration and efficient project management practices.
- ✓ **Reduced Operational Costs:** Optimise resource allocation through strategic outsourcing and efficient service delivery processes.
- ✓ **Enhanced Risk Management:** Implement robust change and problem management processes to minimize risks associated with IT service disruptions.

Expected Outcomes

By implementing these focus areas, the ToPH can expect the following outcomes:

- ✓ **Stronger Business Relationships:** Collaboration and effective communication with business stakeholders will ensure IT services align with business goals.
- ✓ **Improved User Satisfaction:** A user-focused approach will lead to enhanced service delivery and a more positive user experience.
- ✓ **Increased Operational Transparency:** Clear SLAs/OLAs and performance dashboards will provide transparency and accountability for IT service delivery.
- ✓ **Proactive Problem Management:** Proactive monitoring and incident resolution will minimise downtime and ensure service continuity.
- ✓ **Informed Decision Making:** Data-driven insights from performance metrics will inform strategic IT decisions and resource allocation.

This future state vision aligns with the identified Business Drivers for Change by prioritising user satisfaction, service efficiency, and informed decision making. A mature IT service management approach will empower the ToPH IT department to deliver exceptional service, optimise resource utilisation, and support digital roadmap.

IT Management and Security

The ToPH recognises the importance of robust cyber security practices in protecting its critical infrastructure and sensitive data. However, the current security posture, while incorporating elements like anti-virus software, multi-factor authentication, and password management, lacks a centralised, standardised approach. This section outlines the future state vision for IT Management and Security, aiming to achieve a mature and holistic cyber security environment by 2027.

Goals

The future state for IT Management and Security focuses on achieving the following key goals by 2027:

- ✓ **Enhanced Security Posture:** Strengthen the Town's cyber defences by achieving and exceeding Essential Eight Maturity Level 2, minimising the risk of cyberattacks and data breaches. Complimenting this the ToPH will introduce other protections covering SaaS procurement, Non-Microsoft environments etc.
- ✓ **Standardised Security Practices:** Implement comprehensive cyber security policies and a well-defined incident response plan, ensuring a consistent and coordinated approach to security threats.

- ✓ **Empowered Workforce:** Foster a security-aware culture through ongoing awareness training and equipping staff with the knowledge to identify and mitigate cyber risks.

Initiatives

To achieve these goals, the following initiatives will be implemented:

- ✓ **Essential 8 Phase 1 - Maturity Level 1:** Prioritise achieving Essential Eight Maturity Level 1, focusing on critical areas like application control, user application hardening, restricted administrative privileges, and daily backups.
- ✓ **Essential 8 Phase 2 - Maturity Level 2:** Following the initial phase, embark on further initiatives to surpass Level 1 and achieve Maturity Level 2 for the Essential Eight, demonstrating a proactive and comprehensive approach to cyber security.
- ✓ **IT Disaster Recovery and Business Continuity Planning:** Develop and implement a comprehensive IT disaster recovery and business continuity plan, ensuring swift recovery and minimal disruption in the event of cyberattacks or other unforeseen incidents.
- ✓ **Managed Security Service Provider (MSSP):** Engaging a MSSP to augment internal IT expertise and provide continuous monitoring and threat detection capabilities.
- ✓ **Cyber Security Policies and Procedures:** Develop and implement a comprehensive suite of cyber security policies and procedures, encompassing areas like incident response, password management, acceptable use, and access control.
- ✓ **Cyber Security Awareness Training:** Implement ongoing cyber security awareness training programs to educate staff on evolving cyber threats and best practices for secure online behaviour.

Expected Outcomes

By implementing these initiatives, the ToPH can expect the following outcomes:

- ✓ **Reduced Risk of Cyberattacks and Data Breaches:** A robust cyber security framework will significantly reduce the vulnerability to cyber threats and safeguard sensitive Town data.
- ✓ **Improved Compliance with Security Standards:** Achieving Essential Eight Maturity Levels 1 and 2 will demonstrate the ToPH's commitment to cyber security best practices and enhance regulatory compliance.
- ✓ **Enhanced Incident Response Capabilities:** A documented incident response plan will ensure a swift and coordinated response to security incidents, minimising potential damage and downtime.

- ✓ **More Secure and Resilient Digital Environment:** A security-aware culture fostered by continuous training and clear policies will empower staff to make informed decisions and contribute to a more secure digital environment.

This future state vision aligns with the identified business drivers for change by prioritising security and compliance. By implementing a comprehensive cyber security strategy, the ToPH can operate securely, protect its data and assets, and build trust with residents, staff, and stakeholders.

IT Business Systems

The Town of Port Hedland currently operates within a complex landscape of 223 business applications, creating redundancies and inefficiencies. While initiatives to harmonise this environment are underway, further optimisation is necessary. This section outlines the future state vision for IT Business Systems, aiming to achieve a streamlined and integrated ecosystem by 2027.

Goals

The future state for IT Business Systems focuses on achieving the following key goals by 2027:

- ✓ **Rationalise:** Reduce redundancies and complications by consolidating overlapping applications.
- ✓ **Integrate Systems:** Integrate core systems for seamless data flow and improved operational efficiency.
- ✓ **Modernise Legacy Systems:** Retire outdated and unsupported systems like ELMO and Intramaps GIS, replacing them with modern solutions that enhance functionality and user experience.
- ✓ **Cloud-based Solutions:** Prioritise cloud-based solutions (SaaS) first where feasible, leveraging their scalability, cost-effectiveness, and accessibility benefits.
- ✓ **Data-Driven Decision Making:** Integrate business systems with Business Insights platforms to facilitate data-driven insights and inform strategic decision making.

Initiatives

To achieve these goals, the ToPH will undertake the following initiatives:

- ✓ **Geographic Information Management:** Implement a modern, integrated GIS platform to manage spatial data effectively, replacing the Intramaps GIS system.
- ✓ **Award Interpretation, Rostering, Time and Attendance:** Evaluate and implement an Award Interpretation, Rostering, Time and Attendance system for a more streamlined HR and payroll experience.
- ✓ **Learning Management System:** Implement a modern cloud-based Learning Management System to enhance employee training and development opportunities.
- ✓ **Customer Relationship and Stakeholder Management (CRM):** Implement a comprehensive CRM solution to improve customer relationship management, communication, and service delivery.
- ✓ **Lands Management & Administration System:** Evaluate and adopt implement a dedicated Lands Management & Administration system to streamline associated processes.
- ✓ **Organisation-Wide Service Management Tool:** Explore the implementation of an organisation-wide Service Management Tool to improve incident management, service requests, and asset management.
- ✓ **Workshop Inventory Management:** Migrate the Workshop Inventory Management System to a cloud-based solution for enhanced accessibility and real-time data management.
- ✓ **Fleet Management Solution:** Evaluate and implement a modern Fleet Management solution to optimise fleet operations and resource allocation.
- ✓ **Housing Management Solution:** Explore the implementation of a dedicated Housing Management Solution to streamline housing management processes.
- ✓ **Utilisation of the existing Business Insights Platforms:** Integrate existing business systems with the ToPH's Business Insights platforms, enabling data-driven insights and informed decision making.
- ✓ **TechOne Implementation:** Complete the replacement of the Synergy Soft system with One Council. One Council will be a key business system for the ToPH and will be important to its ongoing operations.

Expected Outcomes

By implementing these initiatives, the ToPH can expect the following outcomes:

- ✓ **Reduced Operational Costs:** Streamlined systems and cloud-based solutions can lead to cost savings in terms of software licensing, maintenance, and IT staff workload.
- ✓ **Improved Efficiency and Productivity:** Consolidated and integrated systems will streamline workflows and improve overall operational efficiency.
- ✓ **Enhanced Data Visibility and Insights:** Integration with Business Insights platforms will create a centralised repository for data, fostering data-driven decision making across all levels.
- ✓ **Enhanced User Experience:** Modern and user-friendly systems will improve user experience for both staff and residents interacting with the Town's services.
- ✓ **Increased Agility and Innovation:** Cloud-based solutions and a modern IT foundation will enable the ToPH to adapt to evolving needs and readily embrace new technologies.

This future state vision aligns with the business drivers for change by aiming to streamline operations, optimise resources, and leverage data for effective decision making. Modernised IT Business Systems will empower the ToPH to deliver exceptional service.

IT Asset Management

Managing a diverse IT asset portfolio is crucial for optimising resource utilisation and ensuring cost-effectiveness. While the ToPH utilises an internal register and recently completed an audit, a more comprehensive approach is necessary. This section outlines the future state vision for IT Asset Management, aiming to achieve complete visibility and control over all IT assets.

Goals:

The future state for IT Asset Management focuses on achieving the following key goals by 2027:

- ✓ **Complete Asset Visibility:** Implement a robust IT Asset Management (ITAM) solution to gain comprehensive visibility into all IT assets, including hardware, software, and licenses.
- ✓ **Standardised Asset Management Practices:** Develop and implement standardised policies and procedures for IT asset acquisition, tracking, maintenance, and disposal.
- ✓ **Lifecycle Management:** Optimise the lifecycle of IT assets by proactively managing warranties, renewals, and replacements.
- ✓ **Simplified Asset Landscape:** Reduce complexity by standardising on hardware and software where possible, streamlining procurement and management.

Initiatives:

To achieve these goals, the Town will undertake the following initiatives:

- ✓ **IT Asset Management Plan:** Develop a comprehensive IT Asset Management Plan outlining policies, procedures, and processes for effective IT asset management.
- ✓ **Warranties and Maintenance Agreements Review:** Conduct a regular review of warranties and maintenance agreements to ensure optimal coverage and manage costs effectively.

Expected Outcomes:

By implementing these initiatives, the ToPH can expect the following outcomes:

- ✓ **Reduced IT Asset Costs:** Improved visibility and lifecycle management will optimise resource allocation and lead to cost savings in terms of hardware, software licenses, and maintenance.
- ✓ **Improved Asset Utilisation:** A centralised ITAM system will enable the ToPH to identify and optimise the utilisation of existing assets, reducing the need for adhoc purchases.
- ✓ **Enhanced Security and Compliance:** Complete asset visibility will facilitate improved security practices and ensure compliance with licensing requirements.
- ✓ **Empowered Staff:** A readily accessible IT Asset catalogue will empower staff by providing clear information on available resources and acquisition processes.
- ✓ **Simplified Procurement Management:** Standardisation will streamline procurement processes and facilitate informed decision-making when acquiring new hardware and software.

This future state vision aligns with the Business Drivers for Change by focusing on cost optimisation, resource efficiency, and improved governance. A robust IT Asset Management plan and system will provide the ToPH with the necessary control and visibility to make informed decisions regarding its IT assets and ensure long-term operational efficiency.

Enterprise Architecture

While the ToPH does not currently have a formal Enterprise Architecture (EA) program, implementing key aspects of EA can significantly benefit the digital transformation journey. This section outlines focusing on high-impact areas to achieve strategic alignment and optimise IT investments by 2027.

Goals:

The approach to EA aims to achieve the following key goals:

- ✓ **Improved IT-Business Alignment:** Foster closer collaboration between IT and business stakeholders to ensure IT initiatives support and drive business strategies.
- ✓ **Standardised Architecture Practices:** Establish standardised architecture principles, guidelines, and reference models for network, application, and data architectures.

- ✓ **Optimised IT Portfolio:** Make informed decisions regarding IT investments by aligning technology choices with overall business goals and architecture principles.

Focus Areas

The initial phase of the EA implementation will focus on the following key areas:

- ✓ **Network Architecture:** Develop a well-defined network architecture plan, documenting network components, topology, and standards. This will guide network design, modernisation efforts (outlined in the IT Infrastructure section) and ensure optimal network performance and security.
- ✓ **Application Architecture:** Analyse and document the current application landscape, identifying opportunities for consolidation, modernisation, and integration. This will support initiatives outlined in the IT Business Systems section and promote a more streamlined and efficient application portfolio.
- ✓ **Data Architecture:** Define a data architecture strategy outlining data governance principles, data standards, and data management practices. This will enhance data quality, accessibility, and facilitate initiatives outlined in the IT Business Systems section that leverage data analytics.

Expected Outcomes

By implementing a phased approach to EA, focusing on network, application, and data architecture, the Town of Port Hedland can expect the following outcomes:

- ✓ **Enhanced decision-making:** A clear understanding of the IT landscape will inform strategic IT decisions, ensuring investments align with business goals.
- ✓ **Improved IT service delivery:** Standardised architecture practices will lead to more efficient IT service delivery, supporting core business functions.
- ✓ **Reduced IT complexity:** Streamlined network and application architecture will result in a less complex IT environment, minimising maintenance costs and improving operational efficiency.
- ✓ **Enhanced data foundation:** A well-defined data architecture will lay the groundwork for data analytics initiatives, enabling data-driven decision making across the ToPH.

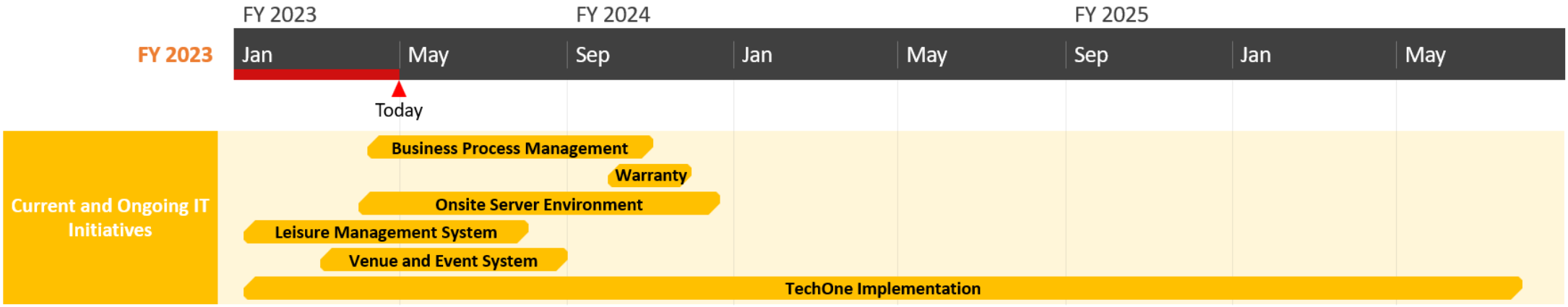
This approach aligns with the Business Drivers for Change by fostering business-IT alignment, optimising resource allocation, and laying the foundation for future growth. By implementing key focus areas of an EA approach, the ToPH can reap significant benefits without undertaking a full-scale, resource-intensive initiative.

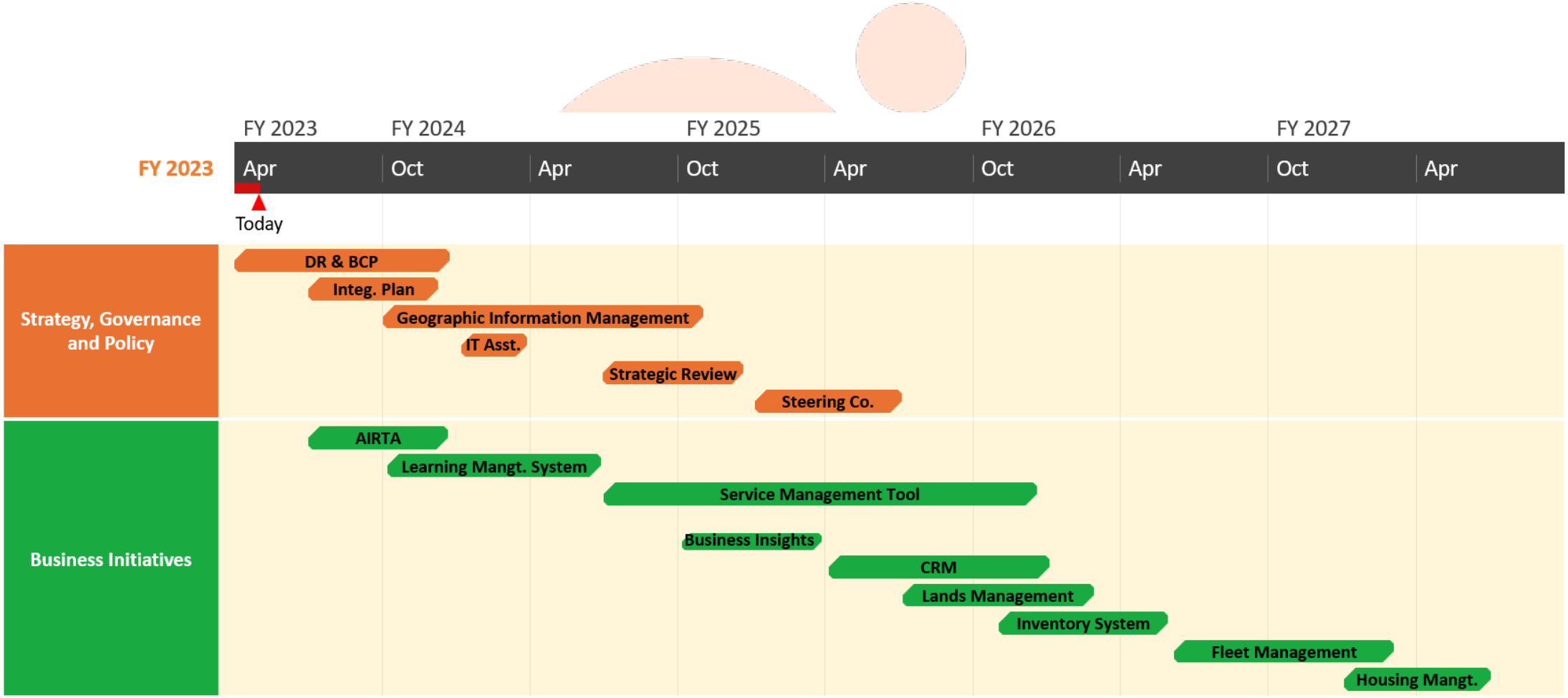
Appendix A – Initiative details and planning provides further context, planning and programming information relating to each individual initiative.

Roadmap

This digital roadmap enables provide an outline of the implementation sequence of the core changes in the roadmap. The implementation schedule may vary depending on the solutions chosen. The 4-year timeframe was based on an analysis of change capacity, resourcing, and investment appetite. It could be compressed or extended to accommodate further consideration.

Figure 9 outlines the roadmap broken down into the individual swim lanes and initiatives.





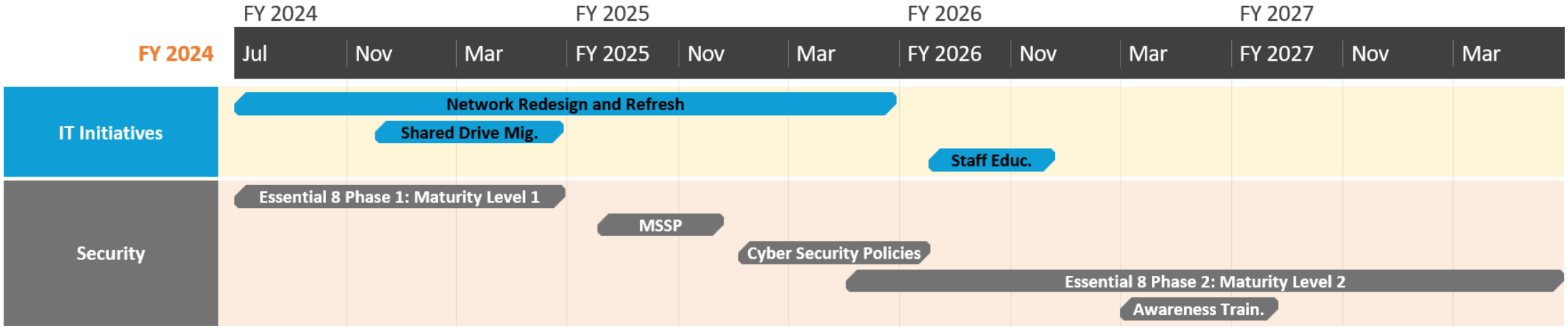


Figure 9 - Roadmap broken down into individual swim lanes and initiatives

Appendix A – Initiative Details and Planning

The following initiatives outline the key changes that will be adopted over the next 4 years embarking on a wide-reaching set of changes that will put the ToPH on a solid foundation to improve internal efficiencies, enhance their customer and staff experience while enabling better decision making.

Tango consider initiatives through the lens of 5 phases. The phases assist in understanding what will be required, key timing, decision points, decision makers, and resource planning. This will also inform the change and communications planning to keep all stakeholders informed.

Figure 10 outlines the five phases or cycles an initiative goes through.

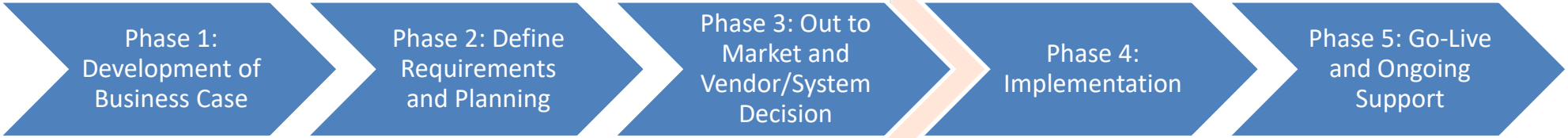


Figure 10 - High-Level Initiative Phases

Current and Ongoing IT Initiatives

Initiative	Description
Business Process Management	**Mapping business processes and workflows.** The ToPH is currently in the process of implementing new technologies to digitise its business processes and operations. As a crucial step in this initiative, they have adopted TechOne as the ERP solution to digitise various business processes. However, during the implementation, it was identified that certain business areas were not covered by the ERP solution. To address this gap, a decision was made to explore the market for the best-suited software solutions that could fill these gaps and digitise those specific business areas. The following will be undertaken; 1. Engage leadership and key senior stakeholders discuss, define and document the requirements. 2. Selection, agreement and refinement of process frameworks, standards, templates, and tools to be adopted. 3. Recommendations, draft process maps to be reviewed and approved by key stakeholders. Produce final process maps and incorporate refinements as appropriate. 4. Engage a service provider who will evaluate the business processes. This supplier will be tasked with identifying, scoping, and creating the necessary business process management solutions required for optimal functioning. 5. Create the change management and training plans for this initiative 6. Deliver training to key staff from all the departments on ongoing maintenance and future refinement of business process management and mapping. ✓ **Owner: Director of Corporate Services** ✓ **Status:** Out to Market

Initiative	Description
	✓ **Start Date:** April 2024 ✓ **Proposed Finish Date:** October 2024 ✓ **Dependencies:** Nil
Warranties and Maintenance Agreements Review	**Review of all current Warranties and Maintenance agreements in place** This would include all maintenance agreements and warranties that are currently in place. They should be assessed based on value they are delivering to the ToPH. The steps will be: 1. Collate all current agreements 2. Place the relevant information into ITSM Tool 3. Review and ensure value is being delivered. 4. If value is not being offered to the ToPH, decide if the agreement needs to be reviewed, closer management or a new provider found. ✓ **Owner:** Senior IT Officer ✓ **Status:** Define Requirements and Planning ✓ **Proposed Start Date:** October 2024 ✓ **Proposed Finish Date:** November 2024 ✓ **Dependencies:** IT Service Management Tool

Initiative	Description
Onsite Server Environment	**Create a decommissioning Strategy and Roadmap.** The current onsite server environment is end of life and the ongoing maintenance, reliability and security raises major concerns for the ToPH.. This is an ongoing issue that has been carried over from the last IT Strategic Plan. A strategy and roadmap needs to be created facilitate the decommissioning process. This is a critical project and needs to be actioned with some urgency. The Strategy and Roadmap should consider the following: ✓ **Preparation:** Discovery and Documentation, Data Backup and Migration and Change Management considerations. ✓ **Decommissioning Process:** Application Retirement, Server Shutdown and Data Wipe and Hardware Disposal. ✓ **Post-Decommissioning:** Validation and Verification and Documentation Update. ✓ **Additional Considerations:** Security, Licensing and Downtime. A comprehensive decommissioning strategy should be developed that ensures a smooth transition and minimises risks. ✓ **Owner:** Senior IT Officer ✓ **Status:** Define Requirements and Planning ✓ **Proposed Start Date:** April 2024 ✓ **Proposed Finish Date:** December 2024 ✓ **Dependencies:** Nil

Initiative	Description
Leisure Management System	**Introduce a comprehensive and integrated Leisure Management System.** The ToPH are currently implementing a best of breed system that will manage all aspects of the Leisure facilities. ✓ **Owner:** Project Manager of IT Systems ✓ **Status:** Implementation ✓ **Start Date:** January 2024 ✓ **Proposed Finish Date:** July 2024 ✓ **Dependencies:** Nil
Venue and Event Management System	**Introduce a comprehensive and integrated Venue and Event Management System.** The ToPH are currently implementing a best of breed system that will manage all aspects for Venues and Event Management. ✓ **Owner:** Project Manager of IT Systems ✓ **Status:** Implementation ✓ **Start Date:** March 2024 ✓ **Proposed Finish Date:** September 2024 ✓ **Dependencies:** Working with the Building Maintenance and Projects Team
TechOne Implementation	**Complete the replacement of the Synergy Soft system with One Council.** The ToPH is currently implementing the One Council cloud based solution offered by TechOne. One Council will be a key business system for the ToPH and will be important to its ongoing operations.

Initiative	Description
	The One Council initiative is currently being rolled out by a special project team that reports directly to the Director of Corporate Services. Although this initiative has been captured in this roadmap, it is not the responsibility of the Manager of IT and Program Delivery to deliver this project. ✓ **Owner:** Director of Corporate Services ✓ **Status:** Implementation ✓ **Start Date:** January 2024 ✓ **Proposed Finish Date:** July 2026 ✓ **Dependencies:** Nil

Strategy, Governance and Policy

Initiative	Description
IT Disaster Recovery and Business Continuity Planning	**IT Disaster Recovery and Business Continuity Planning (IT DRBC) should be part of every mature organisation.** The ToPH has an urgent need to document an IT DRBC that will compliment with the Towns overall Disaster Recovery Plan. This will safe guard the IT Department in the case of an incident. The IT DRBC should consider these broad areas as a minimum: ✓ **Crisis management:** How to manage a specific threat (Power outage, cybercrime or natural disaster). ✓ **Communications:** Outline how to address concerns during an unplanned incident. ✓ **Network recovery:** How to manage interruptions of network services (Including internet access, cellular data, local area networks (LANs) and wide area networks). ✓ **Data recovery** Focus on data security and threats to IT infrastructure (cyberattacks, power outages and difficulty following compliance requirements). ✓ **Overstretched personnel:** How to manage resources and ensure personnel are not overstretched during an event. The steps that need to be followed are: ✓ Define requirements and planning. ✓ Create the change management, communications, and training plans for the project. (to be executed concurrently with the implementation project) ✓ Go to market to find the most suitable vendor to undertake this initiative. ✓ Undertake the project with the winning vendor. ✓ Go Live: Ensure ongoing compliance against the Plan (moves into business as usual)

Initiative	Description
	✓ **Owner:** Manager of IT and Program Delivery ✓ **Status:** Define requirements and planning. ✓ **Proposed Start Date:** April 2024 ✓ **Proposed Finish Date:** December 2024 ✓ **Dependencies:** Nil
Systems Integrations Plan	**Create a strategic approach to systems integration across the organisation.** This plan should outline how other systems will integrate with all key and peripheral systems (TechOne, M365, SharePoint etc). The plan should also outline the considerations that need to be included when assessing new systems when coming into the application landscape. The plan should include as a minimum the following; ✓ Business objectives and alignment. ✓ Current state assessment. ✓ Stakeholder engagement. ✓ Integration scope and prioritisation. ✓ Data mapping and flow. ✓ Technology selection and architecture. ✓ Security and compliance. ✓ Change management and training. ✓ Testing and quality assurance.

Initiative	Description
	✓ Monitoring and maintenance. The steps that need to be followed are: ✓ Prepare a business case for approval. ✓ Define requirements and planning. ✓ Create the systems integration plan, change management, communications, and training plans for the project. (to be executed concurrently with the implementation project) ✓ Go to market to find the most suitable vendor to undertake this initiative. ✓ Undertake the project with the winning vendor. ✓ Go Live: Ensure ongoing compliance against the Plan (moves into business as usual) ✓ **Owner:** Project Manager of IT Systems ✓ **Status:** Business Case Preparation ✓ **Proposed Start Date:** July 2024 ✓ **Proposed Finish Date:** December 2025 ✓ **Dependencies:** Nil
Geographic Information Management	**Develop and Implement a GIS Strategy.** This project will provide a clear direction for the GIS approach for the ToPH. It will provide clarity on overall ownership, governance, and a roadmap. The recent failed audit from the Office of the Auditor General has created a sense of urgency for this initiative.

Initiative	Description
	The steps that need to be undertaken are: ✓ Conduct a comprehensive assessment of the current state of GIS, including the data, tools, processes, and users. ✓ Identify the current and future state needs and expectations of the Town and its stakeholders regarding GIS. ✓ Develop a GIS vision, mission, and goals that align with the Town's strategic plan and priorities. ✓ Define the roles and responsibilities of the GIS owner and other key stakeholders in the Town. ✓ Develop a GIS action plan that outlines the key initiatives, activities, and resources required to achieve the GIS vision, mission, and goals. ✓ Implement the GIS action plan, including the procurement, installation, and configuration of the new GIS tools, the migration and integration of the existing data, the development and delivery of the training and support, and the monitoring and evaluation of the project outcomes. ✓ **Owner:** Director of Corporate Services ✓ **Status:** Define Requirements and Planning ✓ **Proposed Start Date:** October 2024 ✓ **Proposed Finish Date:** October 2025 ✓ **Dependencies:** Nil
IT Asset Management Plan	**Creation and implementation of an IT Asset Management Plan.** Now the IT Assets across the ToPH have been audited, there needs to be an IT Asset Management Plan created. This plan should ensure the effective management of the assets moving forward. This plan should consider as a minimum: Total assets, asset classes, lifecycle, maintenance and warranty obligations, vendor management etc. ✓ Define requirements and planning.

Initiative	Description
	✓ Create the change management, communications, and training plans for the project. (to be executed concurrently with the implementation project) ✓ Decide at this point if this project can be completed internally or a consultant is required. ✓ Go to market to find the most suitable consultant (if no capability within the IT Department). ✓ Decide on the best approach and create plan. ✓ Go Live: Ensure ongoing compliance against the Plan (moves into business as usual) ✓ **Owner:** Senior IT Officer ✓ **Status:** Implementation ✓ **Proposed Start Date:** January 2025 ✓ **Proposed Finish Date:** March 2025 ✓ **Dependencies:** Nil
IT Department Strategic Review	**Undertake a Strategic Review of the IT Department to ensure it meets the needs of the ToPH.** The ToPH currently operates a lean IT Department. According to the Strategic Workforce Plan 2020 – 2024, the ToPH expects their total workforce to increase by 2% year on year. Due to this the IT Department will need to evolve to meet the future needs of the ToPH. A Strategic Review will be undertaken to ensure it is aligned with the broader organisational goals. The review should cover: Alignment, Governance, Service Delivery, Metrics, Organisational Structure, Roles, and Responsibilities. The review is to be conducted with two clear focus areas. Within each focus area the review will cover:

Initiative	Description
	✓ **Current State:** Document the current state of the IT Department and how it delivers value. ✓ **Identify areas for change:** Discussion papers to facilitate organisation wide engagement. ✓ **Future State:** Understand what the future state of the IT Department will look like to meet the needs of the organisation. Each phase can run concurrently or consecutively, depending on resources and timing. **Alignment, Governance, Service Delivery and Metrics** The review should consider: ✓ **Customer Engagement:** Establishing stronger relationships and communication between IT and the business units. ✓ **Application Portfolio Analysis:** Categorising applications based on criticality, overall ownership, and user needs. ✓ **Service/Operating Level Agreements and Support Model:** Clearly defined SLAs and a well-structured support model. ✓ **Performance Metrics:** Identify key performance indicators to track IT support effectiveness and areas for improvement. ✓ **Operations:** Proactively approaching infrastructure management, asset audits, network refresh etc. ✓ **Knowledge and Configuration Management:** Centralised knowledge base and configuration management. ✓ **Service Catalogue:** Comprehensive catalogue to provide transparency on IT service offerings. ✓ **Toolsets:** Toolsets required to support the IT Department. ✓ **Project Delivery:** Ensuring a clear project delivery management function including change management and effective communications. ✓ **Governance:** Ensure a governance framework that will ensure effective and optimised operations in the long term. **Organisational Structure, Roles and Responsibilities** The review should consider:

Initiative	Description
	✓ **Vision and Values:** Better understand why the IT Department exists and how it facilitates a service led approach. ✓ **Strategic workforce planning:** Employment Models, Employee Value Proposition, Employee engagement, Future pathways for career advancement. ✓ **Required capabilities and skills:** Capability and competency framework for the IT Department as a whole, functional areas, and individuals. ✓ **Organisational Structure:** What structure will best support the ToPH currently and into the future. ✓ **Roles and Responsibilities:** Define position descriptions to capture roles and responsibilities that will be relevant into the future. ✓ **Resourcing Mix:** Define the mix of resources that will be required to facilitate a service led and customer focused IT Department. ✓ **Owner:** Manager of IT and Program Delivery ✓ **Status:** Define Requirements and Planning ✓ **Proposed Start Date:** July 2025 ✓ **Proposed Finish Date:** December 2025 ✓ **Dependencies:** Nil
IT Business Systems Steering Committee	**Re-establishment of the IT Business Systems Steering Committee (Steering Committee).** The ToPH needs to re-establish the IT Business Systems Steering Committee to oversee the transformation of the ToPH business systems and IT Support. This committee will be vital in ensuring the strategic importance of the Digital Roadmap and overseeing effective governance. The Steering Committee will provide visibility and oversight of all organisation-wide initiatives for the Executive Team so that dependencies, impacts and change management requirements can be understood, planned, and managed.

Initiative	Description
	The steering committee should be responsible for as a minimum: ✓ Work as the conduit between the business and the IT Department. ✓ Overseeing the Strategic Digital Roadmap 2024 – 2027. ✓ Any new business requirements that need to become part of the roadmap – the committee would need to understand how this will affect the overall roadmap (sponsor, priority, scope, time & money) The ToPH will need to: ✓ Value Proposition of the IT Steering Committee – Explain the value of the Steering Committee to the Executive Team (in this process, explore why the previous Steering Committee stopped functioning). ✓ Define and document the purpose of the Steering Committee. ✓ Define how it will operate (cadence of meetings, decision making framework, decision thresholds etc). ✓ Create descriptions of the roles and responsibilities of each member of the Steering Committee. ✓ Create the change management and communications strategy for the Steering Committee. ✓ Form the Steering Committee. ✓ **Owner:** Manager of IT and Program Delivery ✓ **Status:** Define Requirements and Planning ✓ **Proposed Start Date:** January 2026 ✓ **Proposed Finish Date:** June 2026

Initiative	Description
	✓ **Dependencies:** Nil

Business Initiatives

Initiative	Description
Award Interpretation, Rostering, Time and Attendance	**Introduce a comprehensive and integrated system for Award Interpretation, Rostering, Time and Attendance.** This project seeks a unified system encompassing award interpretation, rostering, and time & attendance management. The goal is to streamline and improve these business processes by bringing them under one platform, fostering efficiency and effectiveness. This comprehensive solution will address the town's need for a standardised, organisation-wide approach, tackling current challenges and paving the way for future advancements in these crucial areas. The new solution will include: ✓ Roster Management ✓ Award Interpretation ✓ Time and Attendance ✓ Data Analysis and Dashboards ✓ **Owner:** Project Manager of IT Systems ✓ **Status:** Yet to Start

Initiative	Description
	✓ **Start Date:** July 2024 ✓ **Proposed Finish Date:** December 2024 ✓ **Dependencies:** Nil
Learning Management System	**Introduce a best of breed and integrated Learning Management System.** The town's existing learning management system has come to end of life and is not meeting the needs of the ToPH. Most HR functionality is now within the ERP system. HR has decided to look for a new learning management system that has all the required functionality as per current and future needs and integrate with Town's ERP and Systems. The following steps need to be undertaken; 1. Define requirements and Planning 2. Out to Market, Negotiation and decision 3. Implement chosen system 4. Testing, Go-live and ongoing support ✓ **Owner:** Learning and Development Coordinator ✓ **Status:** Yet to Start ✓ **Proposed Start Date:** October 2024 ✓ **Proposed Finish Date:** June 2025 ✓ **Dependencies:** Nil

Initiative	Description
Organisation Wide Service Management Tool	**Implement a best of breed Organisation Wide Service Management Tool.** The current approach to internal service management across the organisation provides no oversight into the level of service required and/or delivered. This means there is no visibility on the internal support levels. This tool will be utilised to manage support tickets across the organisation for internally managed requests and will be the single source of trust for service delivery metrics. The areas of the organisation that could benefit from this tool are as follows (this list is not exhaustive); ✓ Human Resources ✓ Payroll ✓ Finance ✓ Marketing The steps that need to be undertaken are: 1. Development of Business Case 2. Understand the needs of the organisation, define requirements, documentation, and planning. 3. Asses if TechOne/Freshservice will be a suitable solution and will meet the needs of the organisation. If not, go to market to find a more suitable system. 4. Create the change management, communications, and training plans for the project. (to be executed concurrently with the implementation project) 5. Either implement the TechOne/Freshservice Solution or go to market to find the most suitable vendor to undertake this initiative. 6. Undertake the project with the winning vendor. 7. Go Live: Ensure the chosen solution is meeting the requirements and provide ongoing support (moves into business as usual).

Initiative	Description
	✓ **Owner:** Director of Corporate Services ✓ **Status:** Development of Business Case ✓ **Start Date:** July 2025 ✓ **Proposed Finish Date:** December 2026 ✓ **Dependencies:** Nil
Utilisation of the existing Business Insights Platforms: TechOne and Power BI	**Utilise the existing Business Insights Platform better: TechOne and Power BI** The current platforms Power BI and TechOne should be redesigned and maintained to provide key insights. This should be based on an open and agile approach that will meet the needs of the organisation and provide more accurate and quicker decision making. This could be undertaken with two different options: a) Recruit and resource within the ToPH. b) Engage with a Consultant/Vendor. The steps that need to be undertaken are: 1. Understand the needs of the organisation, define requirements, documentation, and planning. 2. Create the change management, communications, and training plans for the project. (to be executed concurrently with the implementation project) 3. Make a decision on the best option to undertake this work (Insourcing or Outsourcing) 4. If Outsourcing, Go to market to find the most suitable consultant/vendor to undertake this initiative.

Initiative	Description
	5. Undertake the project with the winning consultant/vendor. 6. Go Live: Ensure the chosen solution is meeting the requirements and provide ongoing support (moves into business as usual). ✓ **Owner:** Manager of IT and Program Delivery ✓ **Status:** Define Requirements and Planning ✓ **Proposed Start Date:** October 2025 ✓ **Proposed Finish Date:** March 2026 ✓ **Dependencies:** Systems Integration Plan
Customer Relationship & Stakeholder Management: TechOne	**Assess TechOne for its suitability as a modern Customer Relationship & Stakeholder Management platform.** Adoption of a modern best of breed Customer Relationship Management System that will be the single source of truth for all customer engagement. The steps that need to be undertaken are: 1. Development of Business Case 2. Understand the needs of the organisation, define requirements, documentation, and planning. 3. Asses if TechOne will be a suitable solution and will meet the needs of the organisation. If not, go to market to find a more suitable system. 4. Create the change management, communications, and training plans for the project. (to be executed concurrently with the implementation project) 5. Either implement the TechOne Solution or go to market to find the most suitable vendor to undertake this initiative. 6. Undertake the project with the winning vendor. 7. Go Live: Ensure the chosen solution is meeting the requirements and provide ongoing support (moves into business as usual).

Initiative	Description
	✓ **Owner:** Public Affairs Team ✓ **Status:** Development of Business Case ✓ **Proposed Start Date:** April 2026 ✓ **Proposed Finish Date:** December 2026 ✓ **Dependencies:** Nil
Lands Management & Administration System: TechOne.	**Assess TechOne for its suitability and introduce a comprehensive and integrated Lands Management and Administration System.** The system should have the capability to manage: Building permits, submissions, approvals, drawing repository etc all the way through from application to approval. The steps that need to be undertaken are: 1. Development of Business Case 2. Understand the needs of the organisation, define requirements, documentation, and planning. 3. Asses if TechOne will be a suitable solution and will meet the needs of the organisation. If not, go to market to find a more suitable system. 4. Create the change management, communications, and training plans for the project. (to be executed concurrently with the implementation project) 5. Either implement the TechOne Solution or go to market to find the most suitable vendor to undertake this initiative. 6. Go to market to find the most suitable vendor to undertake this initiative. 7. Undertake the project with the winning vendor. 8. Go Live: Ensure the chosen solution is meeting the requirements and provide ongoing support (moves into business as usual).

Initiative	Description
	✓ **Owner:** Town Planning Team ✓ **Status:** Development of Business Case ✓ **Proposed Start Date:** July 2026 ✓ **Proposed Finish Date:** February 2027 ✓ **Dependencies:** Nil
Workshop Inventory Management System: TechOne.	**Assess TechOne for its suitability and implement a Workshop Inventory Management System into the Depot.** The current Inventory Management Module has not been adopted within TechOne. The current TechOne project planning indicates it is a module that requires further work to be suitable. The ToPH should consider undertaking a capability based assessment of the Inventory Module within TechOne to ensure it will meet the needs of the organisation. If not, the ToPH should look to implement a best of breed Workshop Inventory Management system that will provide the appropriate integrations necessary to operate within the application landscape. The steps that need to be undertaken are: 1. Understand the needs of the organisation, define requirements, documentation, and planning. 2. At this point a decision should be made to either implement the Inventory Module within TechOne or go to market to find a more suitable system. 3. Create the change management, communications, and training plans for the project. (to be executed concurrently with the implementation project) 4. Go to market to find the most suitable vendor to undertake this initiative. 5. Undertake the project with the winning vendor.

Initiative	Description
	6. Go Live: Ensure the chosen solution is meeting the requirements and provide ongoing support (moves into business as usual). ✓ **Owner:** Infrastructure Operations ✓ **Status:** Define Requirements and Planning ✓ **Proposed Start Date:** November 2026 ✓ **Proposed Finish Date:** May 2027 ✓ **Dependencies:** Nil
Fleet Management Solution: TechOne	**Assess TechOne for its suitability and adopt a Fleet Management Solution with a comprehensive and integrated tracking solution.** Currently Fleet Management is undertaken in a number of systems and manual processes: TechOne, Smart Track, Spreadsheets etc. The ToPH should consider to undertaking a capability based assessment of the Fleet Management Module within TechOne to ensure it will meet the needs of the organisation. If not, the ToPH should look to implement a best of breed system that will provide the appropriate integrations necessary to operate within the application landscape. The system should have the capability to: Manage the fleet of assets throughout their lifecycle, tracking via Mobile and Satellite methods, machine hours, warnings, exception management, driver behaviour monitoring, route optimisation etc. The steps that need to be undertaken are: 1. Understand the needs of the organisation, define requirements, documentation, and planning. 2. At this point a decision should be made to either implement further the Fleet Management within TechOne or go to market to find a more suitable system that can integrate with both. 3. Create the change management, communications, and training plans for the project. (to be executed concurrently with the implementation project)

Initiative	Description
	4. Go to market to find the most suitable vendor/system to undertake this initiative. 5. Undertake the project with the winning vendor. 6. Go Live: Ensure the chosen solution is meeting the requirements and provide ongoing support (moves into business as usual). ✓ **Owner:** Infrastructure Operations ✓ **Status:** Define Requirements and Planning ✓ **Proposed Start Date:** June 2027 ✓ **Proposed Finish Date:** February 2028 ✓ **Dependencies:** Nil
Housing Management Solution	**Integration of a complete end to end Housing Management Solution.** Currently the coordination and management of the ToPH Housing is manual and via spreadsheets. The ToPH should look to implement a best of breed system that will provide the appropriate integrations necessary to operate within the application landscape. The Housing Management Solution should include as a minimum the following; ✓ Coordination and automation of relocations (Self-service, One touch). ✓ Leasing process. ✓ Property maintenance requests ✓ Contractor/Service provider coordination.

Initiative	Description
	The steps that need to be undertaken are: 1. Development of a Business Case 2. Understand the needs of the organisation, define requirements, documentation, and planning. 3. Asses if TechOne will be a suitable solution and will meet the needs of the organisation. If not, go to market to find a more suitable system. 4. Create the change management, communications, and training plans for the project. (to be executed concurrently with the implementation project) 5. Either implement the TechOne Solution or go to market to find the most suitable vendor to undertake this initiative. 6. Undertake the project with the winning vendor. 7. Go Live: Ensure the chosen solution is meeting the requirements and provide ongoing support (moves into business as usual). ✓ **Owner:** Office of the CEO, Corporate Services & Infrastructure Operations ✓ **Status:** Development of Business Case ✓ **Proposed Start Date:** January 2028 ✓ **Proposed Finish Date:** June 2028 ✓ **Dependencies:** Nil

IT Initiatives

Initiative	Description
Network Redesign and Refresh	Redesign and refresh the ToPH Network Infrastructure. ES^2 conducted an audit in 2023. The audit report identified several gaps and issues in the current network infrastructure and recommended a number of actions. These actions include upgrading the network hardware and software, improving the network security and performance, and implementing best practices for network management and maintenance. The ToPH needs to redesign and refresh network infrastructure to improve performance, security, reliability, and scalability. The project will involve installing new routers, switches, firewalls, servers, and wireless access points, as well as configuring the network settings, protocols, and policies. The project will also include testing, training, and documentation of the new network infrastructure. The following should be considered; ✓ Enhance the network speed, bandwidth, and capacity to support the organisation's current and future needs. ✓ Improve the network security and resilience to prevent unauthorised access, data breaches, and downtime. ✓ Optimise the network performance and efficiency by reducing latency, congestion, and errors. ✓ Enable the network scalability and flexibility to accommodate the growth and expansion. ✓ Ensure the network compliance with industry standards and best practices. ✓ **Owner:** Manager of IT and Program Delivery ✓ **Status:** Define Requirements and Planning

Initiative	Description
	✓ **Proposed Start Date:** July 2024 ✓ **Proposed Finish Date:** June 2026 ✓ **Dependencies:** Nil
Shared Drive Migration	**Finalise the move away from the shared network drives to a cloud solution.** This project is to migrate the data and workflows relying on the shared drives to a cloud solution that provides; Improved accessibility and collaboration, enhanced security and compliance, reduced costs and complexity. The following steps need to be undertaken; 1. Assess the current state of the shared drives, including the volume, type, structure of the data & documents, the workflows & permissions. 2. Identify the requirements and specifications for the cloud solution, such as the storage capacity, functionality, and integration requirements. 3. Create the migration, change management, communications, and training plans for the project. (to be executed concurrently with the implementation project) 4. Select and procuring the cloud solution that best meets the Town's needs. 5. Implement the preferred solution. 6. Training and support for the staff to use the cloud solution. (including documentation and guidelines) 7. Monitor and evaluate and report on the project. ✓ **Owner:** Senior IT Officers ✓ **Status:** Define Requirements and Planning ✓ **Start Date:** December 2024

Initiative	Description
	✓ **Proposed Finish Date:** July 2025 ✓ **Dependencies:** Nil
Strategic Review of Staff Technology, Innovation and Education	**Review and introduce a comprehensive plan for the continued education of ToPH staff on technology, systems and innovation.** This plan should be coordinated with the HR Department and look to be integrated into staff performance reviews and self-improvement plans. Training should be integrated into the LMS. The review should include as a minimum the following; ✓ Business objectives and alignment. ✓ Understand the current staff education and levels or knowledge. ✓ Map out key areas for training and knowledge into the future. ✓ Map out how this will integrate with staff performance reviews and self-improvement plans. ✓ Change management and communication approach ✓ Document and rollout plan to the organisation. ✓ Ensure the ongoing effectiveness of the plan against key metrics. The steps that need to be followed are: 1. Prepare a business case for approval. 2. Define requirements and planning (in coordination with the HR Department). 3. Create the education plan, change management, communications, and training plans for the project. (to be executed concurrently with the implementation project) 4. If this task cannot be completed internally by the ToPH, go to market to find the most suitable vendor to undertake this initiative.

Initiative	Description
	5. Go Live: Ensure ongoing compliance against the Plan (moves into business as usual) ✓ **Owner:** Digital Trainer and Change Management or Manager of IT and Program Delivery ✓ **Status:** Development of Business Case ✓ **Proposed Start Date:** August 2026 ✓ **Proposed Finish Date:** December 2026 ✓ **Dependencies:** Work in conjunction with the HR Department

Security

Initiative	Description
Essential 8 Framework	**Compliant against the Essential 8 Framework – Maturity Level 1 achieved and working towards Maturity Level 2.** The ToPH has a goal to meet the requirements of the Essential 8 Maturity Level 1 criteria, and have this recognised by the Office of the Auditor General (OAG). Then the intention will be to start working towards Maturity Level 2. This will be a staged approach over the life of the Digital Roadmap. Veev completed a report that reviewed the ToPH cyber security practices and current posture. The report provided 5 recommendations that need to be actioned: ✓ Documenting, seeking approval and implementing a Cyber Security Incident Management procedure with associated training for staff. ✓ Implementation of the E8 recommendations, specifically regarding: Application Control, User Application Hardening, Restrict Administrative Privileges and Daily Backups. ✓ Implementation of encrypting all mobile devices, PCs and Laptops. ✓ A Cloud Computing Policy and guidelines for security assessments to be conducted when procuring technology or executing technology related projects. ✓ Conduct Penetration Testing and internal vulnerability testing of technical configuration and operating practices. <u>Phase 1</u> Phase 1 will be focusing on recommendations in point 2: Implementation of recommendations around Application Control, User Application Hardening, Restrict Administrative Privileges and Daily Backups. Executing on this recommendation will ensure the ToPH achieves Level 1 Maturity and will set them up for compliance as audited by the OAG.

Initiative	Description
	✓ From the Veev report, establish a strategic action plan to move forward. The action plan should be based on the detailed recommendations in section 2.3 , 2.4 and 2.5 of the Veev report. (This is to include a validation of the current state: applications, user profiles, administrator control, back up approach/solution etc) ✓ Create a list of action items and prioritise according to urgency and need. Create a mini Roadmap that will inform the approach. ✓ Where needed, go to market and find solutions/external consultants who can provide the required services. (Capability Planning within the IT Department for both Resourcing and supporting systems) ✓ Execute on the action plan with a view to achieving Maturity Level 1 Status Phase 1: ✓ **Owner:** Cyber Security Engineer or Manager of IT and Program Delivery ✓ **Status:** Define Requirements and Planning ✓ **Proposed Start Date:** July 2024 ✓ **Proposed Finish Date:** June 2025 ✓ **Dependencies:** Nil <u>Phase 2</u> Phase 2 will about working towards achieving Maturity Level 2. This will focus on understanding the requirements of Level 2 first, then mapping a pathway to compliance. ✓ Conduct a review of the Cyber Security Posture at this point in time. Focusing specifically on ranking the security posture against the 8 areas in the framework. A specialist Cyber Security organisation should be engaged to conduct this review. ✓ Create a list of action items and prioritise according to urgency and need. Create a mini Roadmap that will inform the approach.

Initiative	Description
	✓ Where needed, go to market and find solutions/external consultants who can provide the required services. (Capability Planning within the IT Department for both Resourcing and supporting systems) ✓ Execute on the action plan with a view to achieving Maturity Level 2 Status Phase 2: ✓ **Owner:** Cyber Security Manager or Manager of IT and Program Delivery ✓ **Status:** Development of Business Case ✓ **Proposed Start Date:** May 2026 ✓ **Proposed Finish Date:** June 2028 ✓ **Dependencies:** Essential 8 Framework – Phase 1
Managed Security Service Provider	**Procure and implement a cloud based, best of breed Security Information and Event Management Platform (SIEM).** With the evolving landscape of Cyber Security threats, the ToPH should consider implementing a SIEM solution. This will actively ensure that security events can be managed as part of the Cyber Security posture of the ToPH. **Now the relevant policies, procedures and systems have been put in place, it is time to establish a Security Operations Centre (SOC).** A SOC will ensure that all threats that have been identified or need to be managed will be done so through a dedicated operations centre/resource. This SOC should be sized, scoped, resourced and scalable according to the needs of the organisation at the time. Depending on the ToPH capability and internal skill set, this could be operated internally or through a specialist MSP/MSSP. 1. Conduct a requirement gathering exercise to define and understand the needs of the business.

Initiative	Description
	2. Create the change management, communications, and training plans for the successful rollout of the new policies. (to be executed concurrently with the implementation project) 3. Complete a go-to market to find a suitable solution. 4. Complete the implementation with the chosen vendor. 5. Once go-live has been completed, manage the vendor as part of the ongoing capability of the ToPH. ✓ **Owner:** Manager of IT and Program Delivery ✓ **Status:** Development of Business Case ✓ **Proposed Start Date:** August 2025 ✓ **Proposed Finish Date:** December 2025 ✓ **Dependencies:** Nil
Cyber Security Policies	**Create, implement, and maintain the relevant Cyber Security Policies, Procedures and Incident Management.** This initiative is to focus on the policies, procedures incident management documents that sit around the Cyber Security capabilities and activities within the ToPH. This will document a culture of excellence and ongoing improvement within the ToPH. The following steps need to be undertaken: ✓ Undertake a review of the current policies and procedures within the ToPH. Complete a gap and SWOT analysis. ✓ Conduct consultation and workshops with every part of the organisation to define and understand the needs. ✓ Create the change management, communications, and training plans for the successful rollout of the new policies. (to be executed concurrently with the implementation project) ✓ Complete a go-to market to find a suitable external organisation who can undertake the creation of the Cyber Security Policies.

Initiative	Description
	✓ Once the policies have been successfully integrated, ensure continued compliance by using the existing Governance, Risk and Compliance System/approach. ✓ **Owner:** Manager of IT and Program Delivery ✓ **Status:** Development of Requirements and Planning ✓ **Proposed Start Date:** January 2026 ✓ **Proposed Finish Date:** August 2026 ✓ **Dependencies:** Nil
Cyber Security Awareness Training	**This initiative is about creating Cyber Security Awareness for staff, during their onboarding, but also during the life of their employment at the ToPH.** It is important to recognise that people are generally the weakest link when it comes to Cyber Security. Knowing this, the ToPH needs to adopt a system of Cyber Security training, both at the onboarding stage, and throughout the employment cycle. The training is to be relevant, engaging and up to date with the latest industry trends. 1. Undertake a review of the current approach in this area. Complete a gap and SWOT analysis. 2. Conduct consultation and workshops with every part of the organisation to define and understand the needs. 3. Create the change management, communications, and training plans for the successful rollout of the new policies. (to be executed concurrently with the implementation project) 4. Complete a go-to market to find a suitable external organisation/system that can create either bespoke training packages or best in breed training.

Initiative	Description
	5. Once the training content has been created, ensure continued compliance by using the existing Learning Management System. Track training a compliance using this tool. ✓ **Owner:** Senior IT Officer ✓ **Status:** Development of Business Case ✓ **Proposed Start Date:** March 2027 ✓ **Proposed Finish Date:** August 2027 ✓ **Dependencies:** Completed in conjunction with the HR Team

All these changes require careful management and monitoring of the staff's capacity to be involved in validating the new systems with testing, training and transitioning into a new way of working, while still delivering business as usual. External support will be used to support to uplift during the planning and implementation. The evaluation and change process and regular tracking on the teams' support will be included in a change management program that will be part of the implementation. Communication planning and feedback loops will be established to maintain buy in to the changes and continuous monitoring.

Appendix B – Previous IT Strategy and Roadmap Review

Detail of the initiatives and their current status as of January 2023. The indicated dates and status of each initiative is reflective of the January 2023 and has been included for information purposes only. These do not reflect the current status.

	Target Start Year	Target End Year	Actual Start Year	Actual Finish Year	Status	Comment
Business Systems and Applications						
Core system replacement project	2021	2023	2021		On Track	The project to replace the Town's ERP system has commenced on time and is on track. Phase one of the project went live in October 2022
Managed migration of Microsoft suite to cloud	2022	2023	2021	2021	Completed ahead of schedule	The Town successfully completed the migration to Microsoft Office365 in 2021
Effective governance of applications acquisition	2022	2022	2022		Behind schedule	The Town established an IT Systems project area lead by a Project Governance Group to oversee the purchase and implementation of all new IT Systems. The development of an IOP is outstanding
Managed server operating system updates	2023	2025	2021		Ahead of schedule	With the accelerated move to cloud services, the Town has progressed with a review and realignment of it's

	Target Start Year	Target End Year	Actual Start Year	Actual Finish Year	Status	Comment
						server environment ahead of schedule.
Infrastructure						
Whole of communications network design	2021	2023	2021		On Track	The Town has increased the level of redundancy and capacity in it's network in line with changing business needs and consolidated the technology stack.
ICT asset management plan	2021	2023	2021		On Track	The Town has consolidated the IT hardware across all functions and introduced Mobile Device Management.
Server blueprint	2022	2024	2021		On Track	With the accelerated move to cloud services, the Town has commenced reducing it's server footprint. The Town has established a second, failover data centre.
Corporate data clean-up	2021	2023	2021		On Track	The Town has successfully rolled out the required technology to enable granular management of corporate data.
Warranties / maintenance agreements review	2023	2024			Yet to commence	
Telephone system replacement	2021	2023	2022	2022	Completed ahead of schedule	The Town replaced it's aging telephony system with a modern cloud based solution.
Mobile device utilisation	2022	2024	2022		On Track	For mobile phones, the Town standardised it's approach for the purchase of new hardware and rollout Enterprise Mobile Device Management
Business Continuity						
Documented and tested DR solution	2021	2021	2021	2021	Completed	DR Infrastructure and systems are in place
On-premise DR infrastructure	2021	2021	2021	2021	Completed	DR Infrastructure and systems are in place

	Target Start Year	Target End Year	Actual Start Year	Actual Finish Year	Status	Comment
Cloud DR	2022	2024	2022		On Track	Initial Cloud DR capabilities are in place
Security						
Cybersecurity posture using recognised framework	2021	2021			Behind schedule	The accelerated changes to the Town's network, systems and processes driven by the move to cloud based services delayed a formal cybersecurity test until the rate of change has slowed to a point that an evaluation is meaningful.
Utilisation of firewall and anti-virus software	2022	2024	2022	2022	Completed ahead of schedule	The Town has deployed new firewalls and anti-virus software giving it the ability to managed security events.
Staff education	2021	2025	2021		On Track	The Town has established the role of IT Change Management Coordinator which regularly educates staff through a range of channels. The Town also frequently test staff response to simulated cyber-attacks.
Effective user authentication	2022	2024	2021	2022	Completed ahead of schedule	The Town has enabled multi-factor authentication on all central systems. The Town has automated password management and resets based on AI driven risk profiling for all accounts.

Appendix C – Stakeholder Interviews

The details of the key stakeholder interviews are outlined below.

Business Area	Person(s)	Date of Interview
XCy IT Solutions - Current Managed Service Provider	Keirin Leveridge	23/11/23
IT Team	Florian Goessmann	27/11/23
Customer Service	Florian Goessmann & Shekkira Jones	27/11/23
Gratwick Aquatic Centre	Che Hill & Mike Pinkam	27/11/23
Work Place Health & Safety	Cherry McNicol, Daya Sagar Reddy Nandi Knoda, Florian Goessmann & Sandra Brockwell	28/11/23
Asset Management	Christine Palmer & Florian Goessmann	28/11/23
Finance Management	Christine Palmer & Florian Goessmann	28/11/23
Fleet Management	Jess Twaddle & Alex Kandie	28/11/23
Public Affairs	Shanna & Florian Goessmann	28/11/23
ERP Replacement Project & Civic Centre	Florian Goessmann & Michael Angus	28/11/23
Planning	Craig Watts & Lee Furness	29/11/23
Records Management	Florian Goessmann & Sandhiya Goundar-Lafond	29/11/23
Procurement & Governance	Daya Sagar Reddy Nandi Knoda & Florian Goessmann	29/11/23
HR & Payroll	Cherry McNicol, Christine Palmer, Janine Cox, Michael Angus & Shaun Law	29/11/23
Library	David Snyder & Melinda Hurst	29/11/23

Business Area	Person(s)	Date of Interview
IT Team	Karl Daybell	28/11/23
IT Team	Jason Ruhle	15/12/23 & 12/02/24
IT Team	Florian Goessmann & Jason Ruhle	19/01/24
IT Team	Daya Sagar Reddy Nandi Knoda , Florian Goessmann & Jason Ruhle	6/02/24
TechOne Project	Michael Angus	13/02/24

Appendix D– Premises Locations

Details of the buildings in operation at the ToPH.

Name	Address
Civic Centre	13 McGregor St, Port Hedland WA 6721
Depot – Office and Workshop	3 Cajarina Rd, Wedgefield WA 6721
Gratwick Aquatic Centre	McGregor St, Port Hedland WA 6721
JD Hardie Youth and Community Hub	LOT 5991 Cottier Dr, South Hedland WA 6722
Landfill	N Circular Rd, South Hedland WA 6722
Matt Dann Theatre and Cinema	35 Hamilton Rd, South Hedland WA 6722
Milpaku Kuma Community Centre	McGregor St, Port Hedland WA 6721
Port Hedland Library	150 Anderson St, Port Hedland WA 6721 (Port Hedland Boulevard)
South Hedland Library	Leake St, South Hedland WA 6722
South Hedland Aquatic Centre	Leake St, South Hedland WA 6722
Wanangkura Stadium	Hamilton Rd, South Hedland WA 6722

Appendix E – IT Asset Management

Details of the current assests as captured by the ToPH.

Asset Type	Number
Computing Device – Desktop	162
Computing Device – IoT	2
Computing Device – Laptop	168
Computing Device - Mobile Devices	90
Computing Device – NUC	4
Computing Device – Server	22
Computing Device – Storage	18
Hardware - Audio/PA System	31
Hardware – Deskphone	17
Hardware – Dock	3
Hardware - Printers & Scanners	63
Hardware - Projector, Project Screens, TVs & Video Conferencing	67
Hardware – UPS	14
Network - Access Point	9
Network – Firewall	12
Network - Modem, Router & Switch	98
Network - POE Injector	4
Network - Wireless Bridge/Link	2
TOTAL NUMBER OF DEVICES	**786**