Service Review - Corporate Information and Communication Technology - Report

Originating Officer	Acting Manager ICT - Annmarie Mabarrack
Corporate Manager	Acting Manager ICT - Annmarie Mabarrack
General Manager	Acting General Manager Corporate Services - Ray Barnwell
Report Reference	FAC190820F01

Confidential

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CONFIDENTIAL MOTION

1. **That pursuant to Section 90(2) and (3)(a) and (d) of the Local Government Act 1999, the Finance and Audit Committee orders that all persons present, with the exception of the following persons: Adrian Skull, Tony Lines, Ray Barnwell, Fiona Harvey, Steph Roberts, Annmarie Mabarrack, Nicola Beckwith-Jones, Kate McKenzie, Cass Gannon and Mel Nottle-Justice be excluded from the meeting as the Committee receives and considers information relating to the Service Review – Corporate Information and Communication Technology – Report, upon the basis that the Committee is satisfied that the requirement for the meeting to be conducted in a place open to the public has been outweighed by the need to keep consideration of the matter confidential given the information, relates to personnel matters and commercial information of a confidential nature.**

REPORT OBJECTIVE

To provide the Finance and Audit Committee (FAC) with the final report for the Corporate Information and Communication Technology (ICT) Service Review (SR).

EXECUTIVE SUMMARY

The review of the Corporate ICT function has been finalised, an overview can be reviewed in Appendix 1 and the final report in Appendix 3. The report details recommendations, potential savings, costs and proposed changes to maintain and enhance service delivery.

RECOMMENDATION

That the Finance and Audit Committee:

1. **Provides comment on the service review of Corporate ICT**
2. **Notes the recommendations identified**
3. **In accordance with Section 91(7) and (9) of the Local Government Act 1999 the Committee orders that this report, any attachment to this report and the minutes arising from this report having been considered in confidence under Section 90(2) and (3)(a) and 90(2) and 3(d) of the Act except when required to effect or comply with Council's resolution(s) regarding this matter, be kept confidential and not available for public inspection for a period of 12 months from the date of this meeting. This confidentiality order will be reviewed at the General Council Meeting in August 2020.**

DISCUSSION

In May 2018, the Cities of Marion (CoM), Charles Sturt (CCS) and Port Adelaide Enfield (PAE) agreed to establish a collaborative partnership where the councils would actively work together to identify and implement process improvements and initiatives to improve service, cost and quality to the mutual benefit of their communities.

The Corporate ICT function was identified in CoM's Service Review Program for review in FY2018/19, it was decided to work together with CCS and PAE to deliver the second Cross Council Service Review (CCSR).

A broad range of analysis was undertaken to identify opportunities for improving outcomes for customers and the community in relation to the in-scope services. A detailed benchmarking review was undertaken with the aim of understanding the best of everyone's work practices leading to identification of improvement opportunities.

In addition and specifically for CoM, the following CoM documents were reviewed and considered when forming recommendations:

- Business Systems Fitness Review (BSFR) 2018
- Information Technology Application Strategy (ITAS) 2019
- Business Plan (BP) 2019-2023

Key findings

The following key findings have emerged from the CCSR:

- Governance was a common need across the councils.
- Outsourced support and development capability has driven higher costs and lower agility and ability to meet customer needs at CoM.
- There is around 90% overlap in future functionality desired by each of the councils.
- There are common capability gaps across the councils.
- A high proportion of discretionary work is undertaken within all teams.
- PAE have strong operational performance, with the lower cost per user and the most positive scores from their user community.

In addition to the CCSR and specifically for CoM:

- Additional resources and skills are required to support the implementation of recommendations from the BSFR, ITAS and CCSR and to support the projects/initiatives identified in the BP.

Key recommendations

The following key recommendations encapsulate the key actions to be implemented as a result of the CCSR:

- Establish ICT strategy, governance and project delivery frameworks across the councils
- Combine project delivery across the councils
- Undertake stronger collaboration through sharing unique skill sets and costs
- Extend the life of infrastructure leases
- Take a planned approach to workflow development
- Review the use of application managed support services
- Undertake an architectural approach to solving repeat support requests
- Address identified capability development areas across all councils
- Implement service desk performance monitoring and addressing the root cause of ongoing service issues
- Implement self-serve functionality
- Share training programming

In addition to the CCSR and specifically for CoM:

- Endorse the identified optimal team structure to support the implementation of recommendations from the BSFR, ITAS and CCSR and to support the projects/initiatives identified in the BP.

Benefits
More than $3.9M Net Present Value (NPV) improvement (4% improvement in recurrent spend) in the cost of ICT is expected overall from implementing all CCSR recommendations, the impact for CoM is a $1.5M NPV improvement determined over 10 years using a 6.0% discount rate.

Appendices
Appendix 1: Overview of CCSR
Appendix 2: Service Review Key Recommendations
Appendix 3: CCSR Report
Appendix 4: CCSR Analysis and Findings
Appendix 5: Overview of BSFR 2018
Appendix 6: Overview of ITAS 2019-2024

Attachment

#	Attachment	Type
1	Service Review - Corporate Information and Communication Technology - Report - Appendix 1	PDF File
2	Service Review - Corporate Information and Communication Technology - Report - Appendix 2	PDF File
3	Service Review - Corporate Information and Communication Technology - Report - Appendix 3	PDF File
4	Service Review - Corporate Information and Communication Technology - Report - Appendix 4	PDF File
5	Service Review - Corporate Information and Communication Technology - Report - Appendix 5	PDF File
6	Service Review - Corporate Information and Communication Technology - Report - Appendix 6	PDF File

Appendix 1 - Overview of Cross Council Service Review

What is it?

The 2019 CCSR covers an assessment of the ICT functions at the CoM, CCS and PAE. The key focuses were capability, customer experience and operational effectiveness.

How did it come about?

In May 2018, CoM, CCS and PAE agreed to establish a collaborative partnership where the councils would actively work together to identify and implement process improvements and initiatives to improve service, cost and quality to the mutual benefit of their communities.

The Corporate ICT function was identified in CoM's Service Review Program for review in FY2018/19, it was decided to work together to deliver the second CCSR.

What were the objectives?

- Improve service levels, productivity, quality, risk management and customer experience
- Identify appropriate delivery structures for the future
- Assess the use of delivery outsource models
- Create value for the community
- Identify opportunities for effective collaboration

In addition and specifically for CoM the objectives were to establish the current state of, and recommend an appropriate future state for, the Corporate ICT service delivery model.

What was the approach?

A broad range of analysis was undertaken to identify opportunities for improving outcomes for customers and the community in relation to the in-scope services. A detailed benchmarking review was undertaken with the aim of understanding the best of everyone's work practices leading to identification of improvement opportunities. In addition to desktop analysis, sessions were conducted with the ICT teams and ICT managers.

What were the key findings?

- governance was a common need across the councils
- outsourced support and development capability has driven higher costs and lower agility and ability to meet customer needs at CoM
- there is around 90% overlap in future functionality desired by each of the councils
- there are common capability gaps across the councils
- a high proportion of discretionary work is undertaken within all teams
- PAE have strong operational performance, with the lower cost per user and the most positive scores from their user community

What were the key recommendations?

- combine project delivery across the organisations
- undertake stronger collaboration through sharing unique skills sets and costs
- establish ICT strategy, governance project delivery frameworks across all councils
- extend the life of infrastructure leases
- take a planned approach to workflow development
- review the use of application managed support services
- undertake an architectural approach to solving repeat support requests
- address identified capability development areas across all councils
- implement service desk performance monitoring and addressing the root cause of ongoing service issues
- implement self-serve functionality
- share training programming

What were the key outcomes/impacts?

more than $3.9M NPV improvement (4% improvement in recurrent spend)	reduction in risk of ICT project write off, reinvestment and overinvestment	Improved capability through establishment of ICT strategy, governance and project delivery frameworks	stronger collaboration	freed up resources to be reinvested into increasing service levels

Contents – Key Recommendations

Cross Council Service Review (CCSR)

The CCSR has identified opportunities to improve ICT services from a community, capability and cost perspective. Detailed analysis, findings and estimated costs to support these recommendations are included Appendix 3.

TABLE 1: Key CCSR Recommendations

Summarised Findings		Recommendations
1.0 Implement Consistent ICT Governance Frameworks	**Lead: CCS ICT Manager**	
There was write off or reinvestment of ICT spend due to ICT projects being undertaken without ICT involvement or due process around requirement development and system selection	1.1	Develop and implement ICT decision making, project delivery and ICT role and responsibility frameworks and disciplines across all three organisations to share effort in establishing appropriate ICT governance protocols and reduce risk of reinvestment and write off
ICT investment can proceed to delivery without a business case or assessment of community benefit or risk resulting in high cost / low value projects being undertaken	1.2	All ICT investment to be supported by a business case (appropriate to the level of investment) which includes an assessment of the value of the investment to the community and other stakeholders
Application support resources at all three councils can be engaged to develop functionality through the service desk resulting in sought after application development skills being applied to projects that may not be priority	1.3	Implement assessment thresholds and prioritisation criteria across all three councils to ensure application development and support resources are working on organisational priorities
IMPACT Reduction in annual write off and reinvestment costs of $0.1M for an initial investment of $0.1M. Unvalued benefit of reduced investment in ICT where community benefit is low.		
2.0 Implement Collaborative ICT Strategy Development and Project Delivery	**Lead: CCS ICT Manager**	
CCS have a unique ICT application architecture, strategy and solution design skill set that needs to be sourced externally by the other councils	2.1	Utilise CCS capability to undertake Marion and PAE architecture roadmaps and annual updates to reduce cost, duplication of effort and to increase alignment and collaboration across the organisations
Around 90% of the planned ICT functionality sought over the next 5 years is to be implemented by two or more councils. Evidence suggests the solution developed from all three councils input will be better than that of each individual council alone	2.2	Implement Collaborative ICT Project Delivery across the organisations to deliver functionality together and once, reducing net effort and cost and improving overall outcomes by making the most of everyone's thinking.
Aligning systems project by project will create options for greater future collaboration.	2.3	Align ICT systems project by project through Collaborative Project Delivery creating options for greater future collaboration.
CCS have a unique dedicated ICT program management resource. Capacity can be created to enable this role to be support the other councils.	2.4	Deploy a shared ICT program manager across the three councils to coordinate project planning and delivery, to ensure delivery against application strategy objectives including ensuring alignment of systems project by project over time in line with agreed principles.

Summarised Findings		Recommendations
		Undertake structure changes at CCS to create capacity in the ICT program management role to effect this.
Ongoing access to future thinking and consulting could be cost effectively sourced through a shared Gartner subscription	2.5	Trial value of a shared Gartner subscription for twelve months with a view to ongoing licencing to reduce ad hoc consulting and provide organisations with leading ICT reference materials and advisory services
IMPACT Reduced costs of future system development estimated at $1.2M over LTFP. Unvalued benefits associated with better outcomes as a result of collective thinking and a disciplined approach to ICT strategy and projects that are planned and expected but not yet reflected in LTFPs. Creation of future options for other collaborative services valued up to $13M (NPV 10 years) depending on when and if the options are taken up. This value is largely created from ICT investment the councils are already planning to undertake.		
3.0 Build BI capability together		**Lead: Marion Performance & Innovation Team**
Marion has established a BI Platform and PAE and CCS are planning to establish BI capability in the coming 2 years to support driving operational performance. Marion have invested $0.2M developing knowledge and understanding of BI platforms, designing and implementing BI architecture applicable to all three councils.	3.1	Upon completion of CoM Stage 2 Metrics that Matter project, CoM to work with PAE and CCS to formalise a cross council initiative to develop and implement operational metrics, BI systems and capability, and the processes required to ensure the capability is used effectively within the organisations.
IMPACT Unvalued benefit of avoided cost and effort of CCS and PAE having to undertake the same knowledge building as Marion and acceleration of delivery capability through shared effort.		
4.0 Develop and implemented shared ICT vendor management framework and capability		**Lead: Shared Procurement Manager**
Service levels from major ICT vendors are considered unsatisfactory and structured vendor management practices are not in place to drive service levels.	4.1	Develop and implement ICT vendor management framework and disciplines across the organisations to increase service levels from vendors, share framework implementation effort and support ongoing collaboration
Opportunities exist to manage relationships with common vendors and procure new systems and functionality together to gain scale benefits.	4.2	Undertake joint vendor management and procurement saving time and effort managing relationships, going to market, and potentially improving commercial outcomes as a result
Retired/unused ICT modules are continuing to be paid for	4.3	Negotiation of reduction in fees to be supported by Shared Procurement Lead
Licencing costs for the same functionality can vary ie: Civica costs Marion more than $100K per annum than the other councils pay for comparable functionality	4.4	Engage Civica in negotiations regarding application licencing and support arrangements as part of upgrade discussions
IMPACT Improved service levels from key vendors, reduced licence fees of $70K per annum. Unvalued potential of reduced licence fees for Marion and improved cost outcomes from joint procurement.		
5.0 Work together to develop capability and digital literacy		**Lead: Marion ICT Manager**
There was an 80% overlap in the capability gaps at each of the councils	5.1	Build and manage Training Needs Analysis (TNA) for 3 ICT functions including annual review of TNA
There would be value in combining the effort to coordinate training across councils	5.2	Plan and undertake twice annual joint training sessions together to lift capability in the teams and create a one team culture

Summarised Findings	Recommendations	
User training was raised as an issue in the user community survey and also by staff	5.3	Collaborate on innovative solution for user training and support across the three councils including onboarding new starters
	5.4	Incorporate digital literacy and systems training as an assessment area in all organisational Training Needs Analysis (TNA) and reflect in role descriptions and requirements also
IMPACT Improvement in ICT capability and user community satisfaction through shared effort. A cost of $30K per annum has been allowed to support this.		
6.0 Collaborate on Cyber Security Management	**Lead: Marion ICT Manager**	
PAE and CCS recognised cyber security management as a capability gap. This is done well at Marion.	6.1	Marion to coordinate the cyber security program across councils including awareness and annual penetration testing
Marion have invested significantly in cyber security consulting as they have established their current performance. Cyber security consulting spend is 6-8 times higher than at PAE and CCS. There is opportunity to wind back that investment now as they maintain that rating.	6.2	Marion to reduce annual consulting spend (subject to maintaining current performance) to $30K or less. . Plan and procure cyber security consulting jointly across the councils.
IMPACT Reduction in annual operating spend at Marion of $50K per annum and improved cyber security performance at PAE and CCS		
7.0 Collaborative Workflow Project	**Lead: PAE ICT Manager**	
Workflow is a business improvement tool. There are resources dedicated to workflow build of $0.2M. Work is performed on request without prioritisation or an understanding of impact. Marion have recently implemented a prioritisation criteria in response to this service review.	7.1	Adopt Marion workflow development rules across all three councils and review existing workflow requests against criteria. Review to eliminate and or prioritise outstanding low value workflow requests.
Value could be created by determining the key workflows and interactions that should be automated based on volume and community impact (ie: replacement of pdfs on websites with webforms and workflows)	7.2	Undertake analysis of all organisational workflows, determine priority workflows based on community impact and allocate resources to those priority areas
IMPACT Improve efficiency and customer experience and create value from existing $0.2M per annum investment in workflow development.		
8.0 ICT communication	**Lead: ICT Managers**	
ICT user survey highlighted more communication was needed from ICT	8.1	Develop and implement ICT Communication Plan
IMPACT Improved customer engagement		
9.0 ICT performance reporting	**Lead: PAE ICT Manager**	
Productivity and service levels would be improved with active management of service desk performance	9.1	Implement monthly service desk productivity and performance meetings to monitor individual performance, assess backlogs, identify systemic issues and triage aged calls
Network latency and availability was raised as an issue in the customer survey however network performance is not actively reported or reviewed	9.2	Implement monthly ICT performance reporting and review meetings including network availability and reporting

Summarised Findings	Recommendations	
IMPACT Unvalued impact of Improved service desk productivity which is likely to free up 1 FTE and improve service levels.		
10.0 Lift Service Desk Performance	**Lead: PAE ICT Manager**	
There are aged helpdesk backlogs at CCS and Marion that are likely to no longer need remediation	10.1	Review to eliminate and or prioritise backlogs as part of helpdesk system implementation
1,300 / 6% calls could be resolved through self-serve and widening of access	10.2	Implement user self-serve options as part of the help desk system implementations
Marion has recently replaced their service desk system and PAE and CCS are planning to replace their service desk systems during 1920	10.3	Formalise the helpdesk implementation as a cross council project for PAE and CCS leveraging the work that Marion have done to date. Align functionality and licensing to meet all councils requirements.
25%+ increase in first touch resolution at CCS through streamlined allocation process	10.4	Ensure functionality / configuration specified in the attachments to this report is implemented to support improvements in service levels
IMPACT Improve overall service levels by 20% (reduction in user service desk requests) and lift first touch resolution of calls by 25% at CCS.		
11.0 Collaboration Tools	**Lead: Marion ICT Manager**	
1.0FTE application support FTE at Marion could be freed up if a number of changes were made to Sharepoint/Recordpoint and Colligo at an estimated cost of $50K	11.1	Design and implement recommended improvements to remove / reduce handle time of support calls and free up capacity to undertake more valuable work (Marion only)
Each council is looking at collaboration tools. Selecting and implementing these tools together would provide greater ability to collaborate across the three councils	11.2	Undertake collaboration tool assessment as a collaborative project
IMPACT 1.0FTE equivalent capacity freed up in application support at Marion which will allow that resource to work on more valuable tasks. Unvalued benefit of applying planned individual investment in collaboration tools in a way that will Improve effectiveness of collaboration across the councils.		
12.0 Infrastructure Leasing	**Lead: PAE ICT Manager / Marion ICT Manager**	
Marion ICT lease hardware for 4 years and negotiate reductions in lease costs following lease expiry. PAE replace hardware every three years with no extensions.	12.1	PAE to adopt Marion approach to leasing. Extend lease period to 4 years for the current imminent hardware refresh (PAE only) and Seek reduction in lease fees for servers where this has not yet been done (Marion only)
IMPACT Reduction in lease costs of $65K per annum for PAE ongoing, reduction of $28K per annum for 2 years for Marion		
13.0 Application Managed Support	**Lead: Shared Procurement Leader**	
Empired implemented the Sharepoint / Recordpoint solution at Marion. Annual support of $80K was entered into for post implementation support and capability has since been built in-house to provide this support.	13.1	Work towards retirement of Empired application managed support arrangements (Marion only)
Datacom are used for desktop support and other helpdesk services at Marion. Benchmarking showed Marion had more than adequate network and desktop resources in-house	13.2	Reduce use of Datacom support (Marion only)

Summarised Findings	Recommendations	
Marion use InterIntra for support and helpdesk overflow services. Applying these funds to an in-house resource would increase capacity	13.3	Insource helpdesk capacity to the cost of the interintra annual spend.
CCS use application managed support of $32K per annum which can be reduced	13.4	Assess need for AMS ongoing and leverage PAE skills to support if need be (CCS only)
IMPACT Reduction in annual costs of $160K per annum. Unvalued impact of improved service internally at Marion through increased helpdesk capacity.		
14.0 Workforce and Succession Planning	**Lead: HR Managers**	
Workforce plans are not formally in place at some of the councils. Recruiting for specific skill sets will help address emerging capability needs in the future.	14.1	Undertake formal workforce planning for ICT with HR involvement to determine succession planning and identify skills and attributes to hire for in future
IMPACT Improved capability and succession planning for the ICT function		
15.0 GIS Collaboration	**Lead: Marion ICT Manager**	
GIS resourcing levels vary across the councils in part due to single point person risk. GIS applications are consistent at PAE and CCS but not at Marion	15.1	Incorporate impact of collaborative GIS function into any assessment of GIS options at Marion
IMPACT Potential for improved community value and capability through collaboration on GIS functionality.		

Information Technology Application Strategy (ITAS) 2019-2024

(endorsed in principle at CoM ITAS Meeting 4/6/19)

TABLE 2: Key ITAS Recommendations

Recommendations	
Governance	Adopt the ITAS proposed principles
	Adopt a pace-layered application strategy to determine our core ERP footprint (Postmodern ERP)
	Ensure individual business cases are written on business IT initiatives to justify ROI and consider alternative delivery models such as cloud-delivered solutions and/or collaborative opportunities
Governance and Operating Model / People / Structure	Commit to an appropriate IT governance model to guide and underpin future IT application decisions and investment, and sufficient resources to deliver the plan and provide adequate ongoing support

Business Systems Fitness Review (BSFR)

(endorsed in principle at CoM Executive Leadership Team Committee 3/12/18)

TABLE 3: BSFR Recommendations

Recommendations	
55 recommendations were identified in the BSFR, 49 of these recommendations were covered in either the ITAS or CCSR, displayed below are those that were not covered	
Governance	Assess all CoM ICT based systems in regards to compliance with meeting records management obligations
Operational Excellence, Service Levels and User Experience	Investigate opportunities for improved mobile access: E.g. BlueBeam (online measuring and stamping tool), field staff use of CES
	Assess systems for platform consolidation opportunities; single platform for surveys (Survey Monkey, EngagementHQ), single platform for financial reporting (BIS, GQL)
	Review Sky Trust Platform using BSFR assessment framework with key considerations to reduce duplication requirements and reviewing internal processes
	Explore the following opportunities identified from the May 2018 Infrastructure and Strategy Committee (ISC) Technology Based Survey; (partly covered in ITAS and CCSR) • Facilities management • Fleet management • Online Spatial Mapping System Improvements • Online forms/applications portal • Finance/Payroll System Improvements • Sensors • Internet of Things (IoT) • Retail data • 3D Virtual City Model • Virtual reality technology • Online Survey/Community Forums/Media/Online Videos • Parking/Timesheet App or Web based solution • Smarter WX • Translating tool on the website, neighbourhood centre, call centre
Operational Excellence and Governance	Explore the following system opportunities identified as part of Smart City Enablers: (partly covered in ITAS and CCSR) • App trials – CES, Hard Waste, Optimo Route • Desk phones traded for mobiles to increase mobility • Look at Cross Council system opportunities • Role of traditional ICT department into the future with Technology enabled workforce • Governance • Support

City of Marion specific

It is recommended that the identified optimal team structure is endorsed to support the implementation of recommendations from the BSFR, ITAS and CCSR and to support the projects/initiatives identified in the Business Plan 2019-2023.

CROSS COUNCIL SERVICE REVIEW

Information and Communication Technology (ICT)

Contents

Acknowledgement

In May 2018, the Cities of Marion, Charles Sturt and Port Adelaide Enfield agreed to establish a collaborative partnership where the councils would actively work together to identify and implement process improvements and initiatives to improve service, cost and quality to the mutual benefit of their communities.

This is the second cross council service review for the Cities of Marion, Charles Sturt and Port Adelaide Enfield.

The process has involved consultation and engagement across the three councils. The process has been supported by the significant expertise, effort, contribution and input from many people and in particular:

City of Charles Sturt	City of Marion	City of Port Adelaide Enfield
Karin Mahoney	Mel Nottle-Justice	Peter Kiley
Donna Dunbar	John Gosbel	John Wayne Prideaux
	Thanh Vu	Sarah Philpott
	Carl Funk	
	Phil Mattingly	
	Annmarie Mabarrack	
	Vincent Mifsud	
	Ray Barnwell	

1. Executive Summary

This service review covers the Information Communication and Technology (ICT) functions at the Cities of Marion (Marion), Charles Sturt (CCS) and Port Adelaide Enfield (PAE). Capability and customer experience were key focuses for this review, in addition to operational effectiveness.

Service Overview

ICT is integral to every aspect of council operation and is a key enabler of operational effectiveness, customer experience and, more and more, community connectedness. 45 FTE support more than 12 diverse activities across the councils, spanning strategy, project delivery, technical development and maintenance and customer service.

Key Recommendations and Impacts

Extensive analysis has been undertaken to determine opportunities to improve these services from a community, capability and cost perspective. The key recommendations from this service review will result in:

- $3.9M NPV improvement (6% 10 years, net of implementation costs)[1] in the cost of ICT through:
  - Undertaking joint project delivery savings $1.2M in ICT project costs out of the LTFPs ($1.0M NPV)
  - Implementing ICT strategy, governance and project delivery frameworks across the three councils, to lift capability and reduce the risk of ICT project write off, reinvestment and overinvestment (valued at $0.1M per annum, $0.8M NPV). $100K has been allowed for the development and implementation of these frameworks.
  - Reviewing the use of application managed support services, extending infrastructure leases and retiring applications no longer used which will improve annual cost outcomes by $0.4M ($2.6M NPV)
- Additional value and capacity creation of $0.4M per annum (equivalent to $1.9M NPV)
  - Creating value from $0.2M annual investment in application development resources each year by taking a planned approach to workflow development to improve organisational efficiency
  - Freeing up ~2.0 FTE ($0.1M) of service desk and application support capacity by investing in solving repeat support requests, improving service desk performance, implementation of self-serve functionality and addressing the root cause of ongoing service issues. $70K has been allowed for root cause remediation.
- Improvement of overall service levels by 20% (reduction in user service desk requests) and improved first touch resolution of 25% at CCS.
- Capability gaps across the councils being addressed through sharing unique skill sets across the organisations, sharing training programming and costs and general collaboration. To gain equivalent capability at each of the councils, standalone, would cost more than $0.6M ($2.9M NPV). A shared Gartner subscription ($75K annually) has been included to support in-house delivery of ICT strategy development.

It is also expected additional community value will be driven through improvements in ICT investment decision making, solution design, vendor management and joint procurement. These benefits are unable to be forecast however will be tracked as part of benefits realisation process for this review.

In addition to the operational service review, an assessment of the value and ability to deliver Collaborative ICT Platforms was also undertaken. This review identified the councils could work together to align systems project by project over time which would, in addition to improving outcomes from those projects, create a number of options for the councils to work together more in the future while minimising disruption for the organisations. These options could yield up to $13M (NPV 10 years) in value depending on if and when they are taken up.

Implementation of the recommendations of this review should improve ICT service outcomes, capability and costs as well as providing a platform for the councils to work together more over time and realisation of benefits that would not be able to be achieved on a standalone basis.

[1] $4.4M in benefits – reduced by Gartner investment which equates to $0.5M NPV

2. Overview

This service review covers Information and Communication Technology at Marion, CCS and PAE.

Scope of services

ICT is integral to every aspect of council operation and is a key enabler of operational effectiveness, customer experience and ever increasingly community connectedness. The functions support a wide range of activities for their relatively small size and span strategy, project delivery, technical maintenance and customer service.

Demand for new functionality and ICT support in the organisations is high and being able to balance user needs with community value, while maintaining a sound ICT environment, with a relatively small resource pool, is a challenge faced by local government ICT managers.

Maintenance of the ICT function costs $13.0M annually, with identified investment in ICT projects currently forecast to be around $14.0M over the coming 5 years.

44 FTE support more than 1,500 office and field-based users, maintain 4,000 separate pieces of hardware and respond to 23,000+ requests for support from the user community each year. The functions also maintain and support more than 120 applications and modules at each of the councils, communications networks to more than 40 sites as well as supporting the availability, security and integrity of over 120TB of corporate data.

In addition to maintenance activities, the teams deliver and/or support more than 120 ICT related initiatives each year.

The ICT landscape is continually changing, and it takes effort and investment to maintain a current and relevant ICT function. Emergence of new technologies such as the Internet of Things (IoT), Artificial Intelligence (AI), machine learning and robotics present exciting opportunities for the organisations however they also drive a need for the ICT function to develop and learn at a greater than any other council function. This can be a significant demand on small teams.

Growing demand for ICT capability in the organisations, and an assessment of how we could work together more meaningfully across the councils in the ICT space, formed the basis for this review.

City of Marion

Marion have historically been viewed as late adopters of technology, having moved from Lotus Notes to a Microsoft environment in 2017. This was a major step forward for the organisation.

Marion's enterprise architecture is largely based around a Civica Authority ERP, a Sharepoint/Recordpoint EDRMS and a mix of other on premise and SaaS based applications. Integration between the systems is minimal.

The application support function is largely outsourced due to perceived headcount constraints, and the thought that outsourcing reduces risk. Outsourced support costs are relatively high and this has driven up Marion's ICT cost base.

The wider organisation has also undergone a transformation in the past two years, with a greater focus on performance, data, process and continuous improvement. This change in focus and the addition of roles to support it has created an accelerated demand for ICT functionality and support, placing pressure on a team constrained by the need to facilitate delivery through vendors.

In response to this added pressure, two resources with the ability to develop and configure internal systems were appointed in 2018. These resources have helped the team respond to the increased demand and that has been recognised by the user community.

In addition to bringing resources in-house, the team initiated a Business Systems Fitness Review (BSFR) to assess available functionality which highlighted user dissatisfaction with functionality, particularly with regard to the ERP environment.

The ICT Manager resigned in January 2019 and team members have been acting in the role since.

City of Charles Sturt

CCS have a multi-award winning ICT function and have been seen as one of the leaders in ICT in local government in SA for a number of years. CCS have historically been early adopters of technology and have worked closely with Technology One (Tech One), partnering to develop and implement new functionality. CCS have funded the development of the functionality and Tech One have typically incorporated this into their product suite and marketed it. The functional environment is based around a Tech One Enterprise Resource Planning (ERP) system

and HP Content Manager for their Electronic Document and Records Management System (EDRMS). The majority of applications are hosted on premise and there is a reasonable amount of integration between systems.

CCS are largely internally resourced for operations and support activities. This is augmented by advisory services. Consulting and externally sourced support is typically used for larger scale project management and execution. CCSs most significant recent investment was in works and assets functionality with Tech One in 2016 which was an 18 month long project costing in excess of $2.0M.

CCS have had 3 ICT managers in the past 3 years, with the current incumbent having been in the role for 18 months. The most recent leadership has brought with them a unique skill set and expertise in ICT strategy, planning and architecture roadmap development.

Recent focus for the CCS team has been around understanding organisational needs and aligning those needs and existing plans and projects into an overarching ICT strategic plan for CCS. In addition there has been a focus on building IT business analyst and project delivery capability within the team.

City of Port Adelaide Enfield

PAE have a stable and established ICT function. The team have significant in-house support, development and delivery capability. External resources are used for major implementations and application upgrades only. There is little reliance on external service providers.

The PAE environment is based around Tech One ERP and EDRMS solutions, and a Hanson IPS (Infor) solution for works and assets. The PAE environment has high integration with in-house capability used to build workflows between systems. PAE also develop their own mobile applications avoiding the cost of Microsoft licensing for field resources.

Leadership for the team has been consistent with the current ICT Manager having been in the role for 15 years and being responsible for building the current environment. The team themselves are highly engaged and have a strong customer focus and are well regarded by their user community. The team are resourceful problems solvers, have strong disciplines around deciding where to invest in ICT systems albeit that it is not done in the context of a structured strategy.

The team need to reassess their workflow and integration tools as deprecation of the key integration tool is imminent, with an expected $380K investment in this rebuild required.

The services are summarised in the table below.

TABLE 1: Description of services included in the review

Service	Activities	Description
ICT Management	**Management**	• ICT Management, leadership group, department overheads and training
Project Delivery and Application Development	**Enterprise Architecture**	• Development of application infrastructure and strategies based on user needs, emerging industry trends and technology change
	ICT Project Delivery	• Overarching project management of systems related projects including engagement with the operational owners, requirements documentation, solution selection, coordination of application development, change, communication and process impacts, testing coordination, release, follow up support and resolution of defects and participation in Post Implementation Reviews
	Application Development	• Configuration, customisation and development of systems to enhance or create new application functionality
Application Support	**Application Support**	• Maintenance and update of applications, application upgrades, second level support, application licensing, vendor management, application training and user education
	GIS	• Support of GIS systems including development of asset layers, maintenance and update of data, data extraction, publishing
	Business Intelligence	• Support of data governance frameworks, BI platforms and tools including development of ad publishing of data sets to organisation
Infrastructure Service Delivery	**Desktop Support**	• Maintenance and support of mobile and desktop devices including infrastructure asset management plans, acquisition and replacement programs, lease management, first and second level support
	Service desk	• First point of user support including management of the service desk, resolution of access and other service requests, first level application, desktop and infrastructure support queries, allocation of calls to second level support
	Infrastructure and Communications	• Management of the internal communications network, data centres, cloud service management, network application licencing, performance monitoring, access to internet and WAN services
Information Cyber Security and Audit	**Cyber Security**	• Management of organisational cyber security testing program definition and execution including communication and education
Records Management	**Document/Information Management**	• Facilitation of inbound communication from the community through the organisation • Attributing index data to documents and facilitating electronic capture and storage of records • Management of record compliance and archiving

3. Cross Council Observations

The high level indicators and key observations relating to ICT are below. There is more detailed analysis in the Appendices.

Key observations are:

- PAE have strong operational performance, with the lower cost per user and the most positive scores from their user community. PAE have implemented and support the same functionality as at CCS and Marion.
- Outsourced support and development capability has driven higher costs and lower agility and ability to meet customer needs at Marion.
- There is a high proportion of discretionary work undertaken within the teams that is not subject to the same ICT initiative and project management disciplines as those initiatives which require additional funding. Managing this "hidden" workload more proactively is likely to deliver greater user impact and community value.
- There is around 90% overlap in future functionality desired by each of the organisations. Working together on these common initiatives will provide opportunity to leverage strengths and capacity, to get the best of everyone's thinking and to rebalance the cost of investing in functionality across the three organisations.
- There are a common capability needs across the teams that provide opportunity to work together to address these needs, both to share the workload and cost, and to accelerate capability development.

TABLE 2: ICT Service Parameters

Service Parameters 17/18 Actuals	Marion	Charles Sturt	Port Adelaide Enfield	TOTAL	
Headcount	13	19	18	50.0	Less service desk and project delivery (PD) staff at Marion
FTE	10.8	17.5	16.5	44.8	Marion's resources increased to 13.0 in 1819.
Operating Costs	3.5	5.2	4.2	12.9	CCS higher PD and service desk costs and higher depreciation from prior software investment
Costs and Costs Per User					
TOTAL Cost	3.5	5.2	4.2	12.9	CCS higher due to historic investment and project delivery capability. Smaller user base at Marion
Users	386	541	601	1,528	Large field user base at PAE and CCS
TOTAL costs per user	9.0	9.6	7.0	8.4	PAE lower cost driven by licencing and self-sufficient in-house team
% costs contractors	58%	42%	42%	48%	More support sourced externally at Marion
% ICT costs incurred by ICT	80%	100%	90%	91%	Larger portion of ICT spend controlled outside of ICT at Marion
Customer Survey Satisfaction					
Systems and Processes	4.3	4.3	4.3	4.3	User community sentiment consistent overall
Team	4.7	4.6	4.9	4.8	PAE team scored highest in every question

TABLE 3: Activity level parameters

Service Parameters 17/18 Actuals	Marion	Charles Sturt	Port Adelaide Enfield	TOTAL	
Project Delivery and Application Development (PD and AD)					
ICT Projects Delivered	46	38	32	116	Marion total project portfolio largest (projects not able to be compared in detail)
PD and AD FTE	1.6	6.1	5.2	12.9	CCS resourcing oriented to project delivery, PAE oriented to application development
Projects per ICT FTE	29	6	6	9	Marion's capacity to support project delivery is limited
% Delivered by ICT	39%	100%	97%	70%	Low PD resourcing in ICT at Marion has driven delivery outside of the function
Applications Support					
Annual Cost	1,352	1,743	1,334	4,427	CCS due to historic investment in applications
Licensing and Support	1,062	967	765	2,827	PAE low due to approach to Microsoft licencing
Annual Cost per User	3.5	3.2	2.2	2.9	Marion driven by AMS and higher ERP licencing
Service Desk					
Service Desk Calls pa	5,813	10,841	6,742	23,396	Recorded and implied unrecorded calls
Calls per user	15	20	11	16	IM work logged through service desk at CCS. Marion high due to EDRMS and access issues
% calls outstanding eom	60%	35%	29%	60%	Service desk capacity constrained at Marion. Aged backlogs at other councils
Communications					
Average Line Speed	101,090	2,650	3,010	5,381	Marion own their own Fibre Optic networks which has enabled affordable high speed networks
Annual Cost per user	145	417	137	242	CCS contract renewed in 1718 addressing this cost
Infrastructure					
Server Investment	278	500	757	1,535	PAE costs higher in part due to virtual desktop environment, lease terms and cost per server
Availability	99%+	99%+	99%+	99%+	Availability data may not be accurate
Cost per user	0.86	0.92	1.26	1.05	PAE virtual environment offset in device cost below
Hardware and Devices					
TOTAL Assets Managed	654	1,690	1,654	3,998	(includes printers, scanners and screens etc)
Devices per User	1.57	1.54	1.30	1.45	Less use of tablets and laptops at PAE
Laptop : Desktop	1:2	1:7	1:10	1:6	Marion have the highest per user mobility ratio
Device Cost per User	1.7	1.7	1.1	1.7	Digital workplace Marion and CCS, PAE reflects VDI
Cyber Security Rating	2.61	1.64	NA		Marion recognised as having higher cyber security awareness

4. Service Review Objectives

The service review has the following objectives with regard to the in-scope services:

- Improve service levels, productivity, quality, risk management and customer experience
- Identify appropriate delivery structures for the future
- Assess the use of delivery outsource models
- Create value for the community
- Identify opportunities for effective collaboration

In addition and specifically for Marion the objectives are to establish the current state of, and recommend an appropriate future state for, the Corporate ICT service delivery model taking into consideration;

- The required roles, responsibilities, competencies and optimal team structure required including the assessment of outsourced service delivery models
- The service delivery models at other councils and comparable organisations including appropriate benchmarking
- The organisational demand and future needs for service from the Corporate ICT function

5. Analysis Undertaken

A broad range of analysis was undertaken to identify opportunities for improving outcomes for customers and the community in relation to the in-scope services. A detailed benchmarking review was undertaken with the aim of understanding the best of everyone's work practices leading to identification of improvement opportunities.

In addition to desktop analysis, sessions were conducted with the ICT teams regarding opportunities to improve service desk outcomes. The ICT managers have also participated in many workshops including sessions based around user surveys, service desk insights, objectives, metrics, capability and project delivery.

Customer Survey

A customer survey was conducted across the entire ICT user community of the three organisations. The survey was developed based on a Gartner template and social licence principles. The survey addressed satisfaction with the ICT team, systems and processes. The response rate was high demonstrating the importance of and interest in ICT as a function to the wider organisations.

Objective and Metric Assessment

Objectives for ICT were developed in conjunction with the ICT managers, referencing external data on ICT objectives. A comprehensive set of measures for ICT was then developed to allow the ICT Managers to assess how they were delivering against those objectives. The metrics allowed for the assessment of the current state of ICT for all three organisations, ongoing team performance and engagement and also will support benefits realisation for this review.

Capability Assessment

The required capabilities of an ICT organisation were developed in conjunction with the ICT managers and by referencing a number of external sources and articles. The ICT managers reviewed their team's capability against the capability sets and these ratings were moderated by their peers. Priority areas to address were then identified.

Cost Analysis

The costs of ICT incurred throughout the organisations were extracted (ie: not just those costs incurred within the ICT functions). The 15,000 identified transactions were then categorized to ensure consistency and cost benchmark comparability across the organisations.

Resourcing

Resourcing allocations and costs were compared at a functional level across the three organisations taking into account underlying drivers and contracted services.

Operational Benchmarking

Over 200 key indicators were reviewed across the ICT functions of the three organisations to understand relative productivity, effectiveness, customer experience and outcomes with the aim of identifying opportunities to learn from each other and improve.

Collaborative ICT Platforms Strategy

A review of the value of collaborative ICT platforms across the three councils was undertaken in parallel with this service review. This review assessed the target state for collaborative platforms, the best manner in which that end state could be achieved and whether or not it would be valuable to do so at all.

6. Key Recommendations and impacts

The service review has identified opportunities to improve ICT services from a community, capability and cost perspective. Detailed analysis, findings and estimated costs to support these recommendations are included Attachment A.

TABLE 4: Key Recommendations

Summarised Findings		Recommendations
1.0 Implement Consistent ICT Governance Frameworks	**Lead: CCS ICT Manager**	
There was write off or reinvestment of ICT spend due to ICT projects being undertaken without ICT involvement or due process around requirement development and system selection	1.1	Develop and implement ICT decision making, project delivery and ICT role and responsibility frameworks and disciplines across all three organisations to share effort in establishing appropriate ICT governance protocols and reduce risk of reinvestment and write off
ICT investment can proceed to delivery without a business case or assessment of community benefit or risk resulting in high cost / low value projects being undertaken	1.2	All ICT investment to be supported by a business case (appropriate to the level of investment) which includes an assessment of the value of the investment to the community and other stakeholders
Application support resources at all three councils can be engaged to develop functionality through the service desk resulting in sought after application development skills being applied to projects that may not be priority	1.3	Implement assessment thresholds and prioritisation criteria across all three councils to ensure application development and support resources are working on organisational priorities
IMPACT Reduction in annual write off and reinvestment costs of $0.1M for an initial investment of $0.1M. Unvalued benefit of reduced investment in ICT where community benefit is low.		
2.0 Implement Collaborative ICT Strategy Development and Project Delivery	**Lead: CCS ICT Manager**	
CCS have a unique ICT application architecture, strategy and solution design skill set that needs to be sourced externally by the other councils	2.1	Utilise CCS capability to undertake Marion and PAE architecture roadmaps and annual updates to reduce cost, duplication of effort and to increase alignment and collaboration across the organisations
Around 90% of the planned ICT functionality sought over the next 5 years is to be implemented by two or more councils. Evidence suggests the solution developed from all three councils input will be better than that of each individual council alone	2.2	Implement Collaborative ICT Project Delivery across the organisations to deliver functionality together and once, reducing net effort and cost and improving overall outcomes by making the most of everyone's thinking.
Aligning systems project by project will create options for greater future collaboration.	2.3	Align ICT systems project by project through Collaborative Project Delivery creating options for greater future collaboration.
CCS have a unique dedicated ICT program management resource. Capacity can be created to enable this role to be support the other councils.	2.4	Deploy a shared ICT program manager across the three councils to coordinate project planning and delivery, to ensure delivery against application strategy objectives including ensuring alignment of systems project by project over time in line with agreed principles. Undertake structure changes at CCS to create capacity in the ICT program management role to effect this.
Ongoing access to future thinking and consulting could be cost effectively sourced through a shared Gartner subscription	2.5	Trial value of a shared Gartner subscription for twelve months with a view to ongoing licencing to reduce ad hoc consulting and provide organisations with leading ICT reference materials and advisory services

Summarised Findings		Recommendations
IMPACT Reduced costs of future system development estimated at $1.2M over LTFP. Unvalued benefits associated with better outcomes as a result of collective thinking and a disciplined approach to ICT strategy and projects that are planned and expected but not yet reflected in LTFPs. Creation of future options for other collaborative services valued up to $13M (NPV 10 years) depending on when and if the options are taken up. This value is largely created from ICT investment the councils are already planning to undertake.		
3.0 Build BI capability together	**Lead: Marion Performance & Innovation Team**	
Marion has established a BI Platform and PAE and CCS are planning to establish BI capability in the coming 2 years to support driving operational performance. Marion have invested $0.2M developing knowledge and understanding of BI platforms, designing and implementing BI architecture applicable to all three councils.	3.1	Upon completion of CoM Stage 2 Metrics that Matter project, CoM to work with PAE and CCS to formalise a cross council initiative to develop and implement operational metrics, BI systems and capability, and the processes required to ensure the capability is used effectively within the organisations.
IMPACT Unvalued benefit of avoided cost and effort of CCS and PAE having to undertake the same knowledge building as Marion and acceleration of delivery capability through shared effort.		
4.0 Develop and implemented shared ICT vendor management framework and capability		**Lead: Shared Procurement Manager**
Service levels from major ICT vendors are considered unsatisfactory and structured vendor management practices are not in place to drive service levels.	4.1	Develop and implement ICT vendor management framework and disciplines across the organisations to increase service levels from vendors, share framework implementation effort and support ongoing collaboration
Opportunities exist to manage relationships with common vendors and procure new systems and functionality together to gain scale benefits.	4.2	Undertake joint vendor management and procurement saving time and effort managing relationships, going to market, and potentially improving commercial outcomes as a result
Retired/unused ICT modules are continuing to be paid for	4.3	Negotiation of reduction in fees to be supported by Shared Procurement Lead
Licencing costs for the same functionality can vary ie: Civica costs Marion more than $100K per annum than the other councils pay for comparable functionality	4.4	Engage Civica in negotiations regarding application licencing and support arrangements as part of upgrade discussions
IMPACT Improved service levels from key vendors, reduced licence fees of $70K per annum. Unvalued potential of reduced licence fees for Marion and improved cost outcomes from joint procurement.		
5.0 Work together to develop capability and digital literacy		**Lead: Marion ICT Manager**
There was an 80% overlap in the capability gaps at each of the councils	5.1	Build and manage Training Needs Analysis (TNA) for 3 ICT functions including annual review of TNA
There would be value in combining the effort to coordinate training across councils	5.2	Plan and undertake twice annual joint training sessions together to lift capability in the teams and create a one team culture
User training was raised as an issue in the user community survey and also by staff	5.3	Collaborate on innovative solution for user training and support across the three councils including onboarding new starters

Summarised Findings		Recommendations
	5.4	Incorporate digital literacy and systems training as an assessment area in all organisational Training Needs Analysis (TNA) and reflect in role descriptions and requirements also
IMPACT Improvement in ICT capability and user community satisfaction through shared effort. A cost of $30K per annum has been allowed to support this.		
6.0 Collaborate on Cyber Security Management	**Lead: Marion ICT Manager**	
PAE and CCS recognised cyber security management as a capability gap. This is done well at Marion.	6.1	Marion to coordinate the cyber security program across councils including awareness and annual penetration testing
Marion have invested significantly in cyber security consulting as they have established their current performance. Cyber security consulting spend is 6-8 times higher than at PAE and CCS. There is opportunity to wind back that investment now as they maintain that rating.	6.2	Marion to reduce annual consulting spend (subject to maintaining current performance) to $30K or less. Plan and procure cyber security consulting jointly across the councils.
IMPACT Reduction in annual operating spend at Marion of $50K per annum and improved cyber security performance at PAE and CCS		
7.0 Collaborative Workflow Project	**Lead: PAE ICT Manager**	
Workflow is a business improvement tool. There are resources dedicated to workflow build of $0.2M. Work is performed on request without prioritisation or an understanding of impact. Marion have recently implemented a prioritisation criteria in response to this service review.	7.1	Adopt Marion workflow development rules across all three councils and review existing workflow requests against criteria. Review to eliminate and or prioritise outstanding low value workflow requests.
Value could be created by determining the key workflows and interactions that should be automated based on volume and community impact (ie: replacement of pdfs on websites with webforms and workflows)	7.2	Undertake analysis of all organisational workflows, determine priority workflows based on community impact and allocate resources to those priority areas
IMPACT Improve efficiency and customer experience and create value from existing $0.2M per annum investment in workflow development.		
8.0 ICT communication	**Lead: ICT Managers**	
ICT user survey highlighted more communication was needed from ICT	8.1	Develop and implement ICT Communication Plan
IMPACT Improved customer engagement		
9.0 ICT performance reporting	**Lead: PAE ICT Manager**	
Productivity and service levels would be improved with active management of service desk performance	9.1	Implement monthly service desk productivity and performance meetings to monitor individual performance, assess backlogs, identify systemic issues and triage aged calls

Summarised Findings	Recommendations	
Network latency and availability was raised as an issue in the customer survey however network performance is not actively reported or reviewed	9.2	Implement monthly ICT performance reporting and review meetings including network availability and reporting
IMPACT Unvalued impact of Improved service desk productivity which is likely to free up 1 FTE and improve service levels.		
10.0 Lift Service Desk Performance	**Lead: PAE ICT Manager**	
There are aged helpdesk backlogs at CCS and Marion that are likely to no longer need remediation	10.1	Review to eliminate and or prioritise backlogs as part of helpdesk system implementation
1,300 / 6% calls could be resolved through self-serve and widening of access	10.2	Implement user self-serve options as part of the help desk system implementations
Marion has recently replaced their service desk system and PAE and CCS are planning to replace their service desk systems during 1920	10.3	Formalise the helpdesk implementation as a cross council project for PAE and CCS leveraging the work that Marion have done to date. Align functionality and licensing to meet all councils requirements.
25%+ increase in first touch resolution at CCS through streamlined allocation process	10.4	Ensure functionality / configuration specified in the attachments to this report is implemented to support improvements in service levels
IMPACT Improve overall service levels by 20% (reduction in user service desk requests) and lift first touch resolution of calls by 25% at CCS.		
11.0 Collaboration Tools	**Lead: Marion ICT Manager**	
1.0FTE application support FTE at Marion could be freed up if a number of changes were made to Sharepoint/Recordpoint and Colligo at an estimated cost of $50K	11.1	Design and implement recommended improvements to remove / reduce handle time of support calls and free up capacity to undertake more valuable work (Marion only)
Each council is looking at collaboration tools. Selecting and implementing these tools together would provide greater ability to collaborate across the three councils	11.2	Undertake collaboration tool assessment as a collaborative project
IMPACT 1.0FTE equivalent capacity freed up in application support at Marion which will allow that resource to work on more valuable tasks. Unvalued benefit of applying planned individual investment in collaboration tools in a way that will Improve effectiveness of collaboration across the councils.		
12.0 Infrastructure Leasing	**Lead: PAE ICT Manager / Marion ICT Manager**	
Marion ICT lease hardware for 4 years and negotiate reductions in lease costs following lease expiry. PAE replace hardware every three years with no extensions.	12.1	PAE to adopt Marion approach to leasing. Extend lease period to 4 years for the current imminent hardware refresh (PAE only) and Seek reduction in lease fees for servers where this has not yet been done (Marion only)
IMPACT Reduction in lease costs of $65K per annum for PAE ongoing, reduction of $28K per annum for 2 years for Marion		

Summarised Findings	Recommendations	
13.0 Application Managed Support	**Lead: Shared Procurement Leader**	
Empired implemented the Sharepoint / Recordpoint solution at Marion. Annual support of $80K was entered into for post implementation support and capability has since been built in-house to provide this support.	13.1	Work towards retirement of Empired application managed support arrangements (Marion only)
Datacom are used for desktop support and other helpdesk services at Marion. Benchmarking showed Marion had more than adequate network and desktop resources in-house	13.2	Reduce use of Datacom support (Marion only)
Marion use InterIntra for support and helpdesk overflow services. Applying these funds to an in-house resource would increase capacity	13.3	Insource helpdesk capacity to the cost of the interintra annual spend.
CCS use application managed support of $32K per annum which can be reduced	13.4	Assess need for AMS ongoing and leverage PAE skills to support if need be (CCS only)
IMPACT Reduction in annual costs of $160K per annum. Unvalued impact of improved service internally at Marion through increased helpdesk capacity.		
14.0 Workforce and Succession Planning	**Lead: HR Managers**	
Workforce plans are not formally in place at some of the councils. Recruiting for specific skill sets will help address emerging capability needs in the future.	14.1	Undertake formal workforce planning for ICT with HR involvement to determine succession planning and identify skills and attributes to hire for in future
IMPACT Improved capability and succession planning for the ICT function		
15.0 GIS Collaboration	**Lead: Marion ICT Manager**	
GIS resourcing levels vary across the councils in part due to single point person risk. GIS applications are consistent at PAE and CCS but not at Marion	15.1	Incorporate impact of collaborative GIS function into any assessment of GIS options at Marion
IMPACT Potential for improved community value and capability through collaboration on GIS functionality.		

7. Impacts

The impact of the recommendations on the overall spend, operating surplus and indicators of the operations has been assessed and is contained in the table below.

Adoption of the recommendations would result in a net improvement in the NPV of the cost position of the councils by $3.9M or and a 4% improvement in recurrent spend. The NPV is determined over 10 years using a 6.0% discount rate.

Indirect benefits of the recommendations include:

- Freed up capacity of $0.2M per annum (equivalent NPV $2.1M over 5 years) through initiatives to reduce service desk workload and to remedial solutions that will reduce support requests
- Improved service levels in the form of a 20% reduction in the need for users to contact ICT through self-serve improvements, minor fixes and architectural solutions to minimize repeat and time consuming service desk requests
- A 25% improvement in first touch resolution for the CCS service desk through streamlined allocation of workload to the information management team
- Greater value creation from an annual investment of $0.1M per annum in workflow development through a prioritised approach to workflow development
- Improved capability which would cost around $0.6M to establish and retain on a standalone basis ($2.9M NPV) across the councils, but which will have an annual cost of $75K ($0.5M NPV) to achieve collaboratively

TABLE 5: Scenarios and NPV Outcomes

$M Scenario	Overview	Marion NPV Cost 10 years change from base	CCS NPV Cost 10 years change from base	PAE NPV Cost 10 years change from base	TOTAL NPV Cost 10 years change from base
Base Case	NPV of costs based on current state plans and operations	33.2	49.6	41.1	123.9
Standalone improvements	Base case adjusted for benefits that can be achieved by each council in isolation, and the costs of building the required capability in each organisation on a stand-alone basis.	32.7 0.5F	49.1 0.5F	40.8 0.3F	122.6 1.3F
Collaboration Improvements	Incorporates benefits, costs of addressing capability needs through collaboration and the benefits of collaborative project delivery which can not be achieved by a council in isolation	31.7 1.5F	47.9 1.7F	40.5 0.6F	120.0 3.9F

U = Unfavourable F = Favourable

TABLE 6: Cashflow Savings Relative to Baseline by Council

Savings $000s		19/20	20/21	21/22	22/23	23/24	24/25	25/26
City of Marion	Operating	70	193	175	180	185	190	195
	Capital	68	0	54	0	0	0	40
	TOTAL	**138**	**193**	**230**	**180**	**185**	**190**	**235**
City of Charles Sturt	Operating	107	160	165	170	176	181	187
	Capital	83	152	145	133	0	0	0
	TOTAL	**190**	**312**	**310**	**303**	**176**	**181**	**187**
City of Port Adelaide Enfield	Operating	40	42	43	44	46	47	49
	Capital	81	63	193	20	13	38	20
	TOTAL	**121**	**104**	**235**	**64**	**58**	**85**	**69**
TOTAL	Operating	217	395	383	395	406	418	431
	Capital	232	214	392	153	13	38	60
	TOTAL	**449**	**609**	**775**	**547**	**419**	**456**	**490**

Key Assumptions

The key assumptions underpinning the financial evaluation are:

- **Base Financial Year** - 17/18 Operating Costs
- **Capital forecast** – per LTFP inputs from ICT
- **CPI** – Access economics CPI and Wages CPI forecast
- **Evaluation period** - 10 years – capital savings included until year 5 – additional 5 years of life to allow fair comparative
- **Discount rate** – 6% compared to 4.6-4.85% long term fixed borrowing rate through LGFA
- **Benefits Assumptions** – as set out in recommendations

Investment Cost

The costs required to implement the recommendations are built into the overall NPV outcomes of the initiative. The specific allowances are below:

TABLE 7: Project spend

Recommendation	One off
Remediation actions for Sharepoint/Recordpoint at Marion	50
Implementation of decision making and project delivery frameworks	100
Service desk root cause fixes (ie: password lock out at Marion)	20

8. Delivery against objectives

The combined recommendations of the review deliver on its objectives as follows:

TABLE 8: Delivery against objectives

Objective	How delivered
Improve service levels, productivity, quality, risk management and customer experience	• 20% reduction in service desk calls through Implementation self-serve capability and remediation of specific system issues • Freed up ICT capacity through resolution of root causes of service desk calls and support tasks • Improved cyber security outcomes at CCS and PAE supported by Marion expertise • Reduction in ICT project costs and improved project outcomes through Collaborative Project Delivery • 4% reduction in costs without deterioration in capability or risk
Identify appropriate delivery structures for the future	• Contemporary ICT strategy and execution model being cost effectively adopted through Collaborative Project Delivery initiative
Assess the use of delivery outsource models	• Utilisation of insource system support capability for BAU workloads demonstrated to provide more cost effective and agile ICT service delivery
Create value for the community	• $3.9M (NPV) improvement in financial outcomes for the community while improving service levels and providing access to greater capability across the councils • Implementation of ICT decision making frameworks and focussed prioritisation of integration and workflow skill sets will result in improved value for the community from planned investment in ICT systems not quantified in benefits
Identify opportunities for effective collaboration	• Collaborative project delivery will deliver better project costs and outcomes and will provide the foundation for greater collaboration in the future • Specific collaboration opportunities to leverage different skills sets in relation to BI capability, cyber security, integration and workflow capability development • Collaboration to share workload on metric development, user and ICT team training and development and helpdesk system development
Marion Specific Objectives	
Undertake benchmarking	• Recommendations were specifically formed based on detailed benchmarking between the three councils
Assess required roles and competencies	• Skill and capability requirements were assessed as part of this review • Collaborating to share unique capabilities and working together to address common gaps form the recommendations of this review
Assess organisational demand and future needs for service from the Corporate ICT function	• User surveys, external data and organisational futurist workshop outcomes were referenced to determine capability requirements

9. Change Impacts

The key change impacts are as follows:

Collaborative Project Delivery

- ICT program planning and delivery to be undertaken jointly across councils
- Greater ongoing interaction between all ICT Managers including annual program planning and ongoing governance and support of the Collaborative Project Delivery Initiative (and other service review recommendations)
- CCS ICT Manager leading collaborative project delivery and ICT architecture and strategy across councils
- CCS Program Delivery Lead to take on coordination of program planning and delivery across councils
- Opportunity for a number of IT program management and business analyst roles to work across councils
- Greater interaction with resources from other councils for all ICT team members
- Greater interaction with resources from other councils for users involved in /impacted by ICT projects
- Ongoing recruitment of program and project management and business analyst roles as cross council resources

Other recommendations

- Marion ICT Unit Manager to facilitate cross council cyber security activities
- Greater ongoing interaction between ICT teams across councils including regular training and development sessions
- Impacts across the user community relating to changes in ICT decision making processes

10. Benefits Realisation

The following measures will be put in place to ensure the recommendations from the review are implemented and meet the goals, targets and assumptions reflected in this review. The requirements set out below align with the requirements of the Cross Council Collaboration Framework.

- Monthly governance meetings with the ICT leaders at each council to ensure recommendations are being implemented and outcomes achieved. This group is to be led by the Port Adelaide Enfield Corporate Services Director.
- Quarterly sponsorship meetings between the Corporate Services Directors and ICT Managers of each of the councils to assess performance against implementation targets and review outcomes
- Formal annual review of the initiative against the plans and the assumptions in this review document
- Implementation of monthly reporting to track performance against key indicators

11. Consultation and Engagement

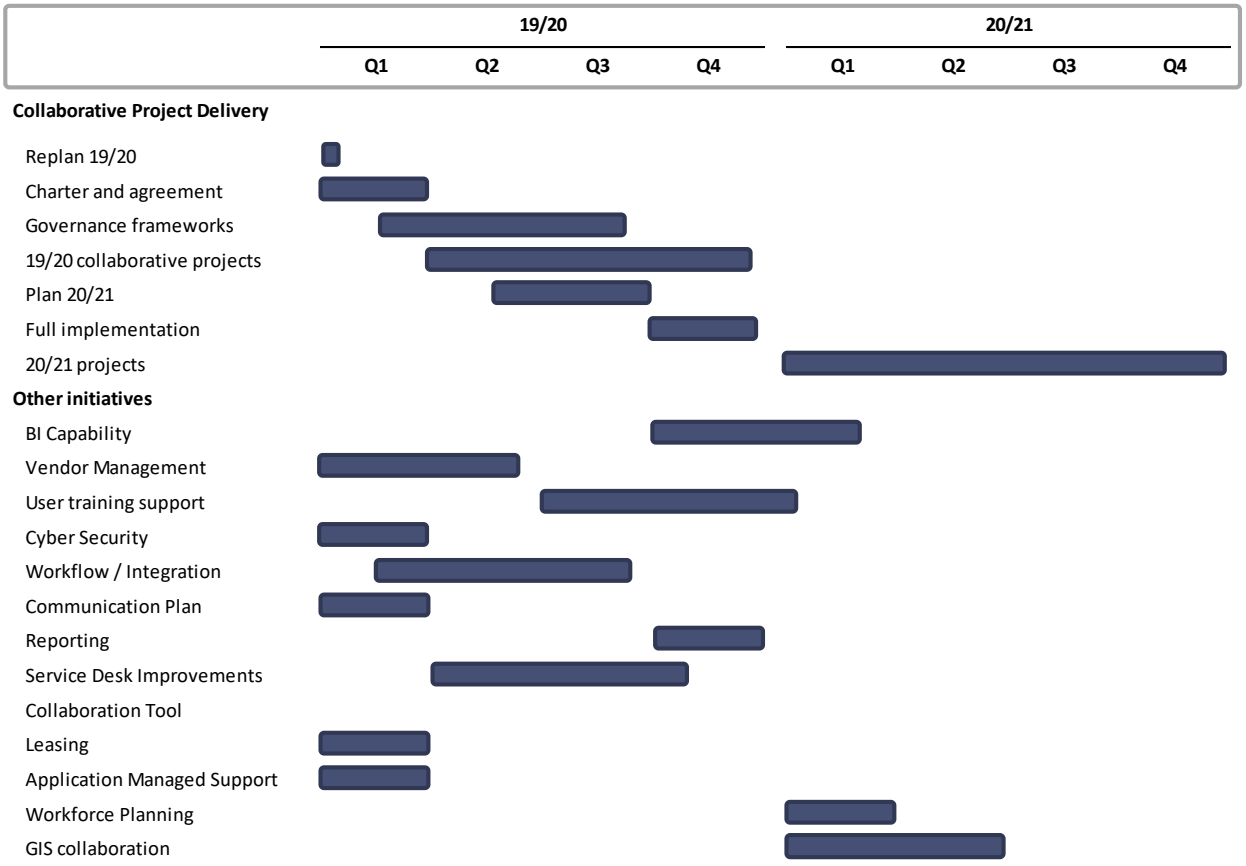
Significant consultation has been undertaken across the three councils regarding this review and the recommendations included within it including:

- Weekly workshops with the ICT Managers across the three councils to undertake strategy development, capability and risk assessments and to review analysis outcomes and develop recommendations
- Fortnightly reference group meetings with the corporate services directors of the three councils to review findings
- Engagement of the user community through a customer survey
- Engagement with all three ICT teams on outcomes from user surveys and helpdesk root cause analysis
- Fortnightly updates with the Marion ICT team during the service review

Each of these sessions involved briefing the participants on the initiative at its various stages, gaining input and understanding concerns, risks and issues to be mitigated.

12. Key Implementation Milestones

Proposed timing relating to the implementation of the project are included below. These timings need to be validated with the ICT Managers as part of their program planning for the 19/20 year and may be subject to change.



ATTACHMENT A

Analysis and Findings

Information and Communication Technology (ICT)

Contents

ATTACHMENT A – ANALYSIS AND FINDINGS

Significant analysis was undertaken in order to assess the current effectiveness of, and to determine opportunities to improve, ICT systems and services across the councils. Analysis was designed to test ICT effectiveness and sustainability in relation to the functions people, its customers, the community, its associated assets and operational excellence.

The analysis looked at the detail of each council's performance in isolation as well as also comparing performance between the three councils. The analysis approaches involved:

- **Conducting a customer survey across** the entire ICT user community of the three councils to address satisfaction with the ICT team, systems and processes.
- **Developing objectives and metrics** then assessing to understand the current state of ICT.
- **Developing required capabilities** of an ICT organisation then reviewing the teams' capability against these sets.
- **Comparing resourcing allocations** and costs at a functional level across the three councils taking into account underlying drivers.
- **Reviewing the costs** to identify all of the costs of ICT incurred throughout the councils, not just those costs incurred in the ICT functions.
- **Reviewing key indicators** (operational benchmarking) across the ICT functions of the three councils to understand relative productivity, effectiveness, customer experience and outcomes with the aim of identifying opportunities.

1. Customer Survey

An internal customer survey to seek feedback on current ICT service effectiveness and gain input into opportunities to improve ICT service delivery and customer experience was jointly undertaken across the councils.

The survey questions regarding ICT systems and processes were developed by the ICT managers based on a Gartner template and a social licence to operate approach. Verbatim questions were included to allow users to articulate what they wanted more and less of from ICT.

Overall, more than 500 (36%) internal technology users responded to the survey, demonstrating the importance of ICT to their user community.

Following the survey, engagement sessions have commenced between ICT and their user communities, to share and validate the findings, and to further understand specific wants and needs.

Key findings

Key observations were:

- There was minor variation in people's satisfaction with ICT systems and processes between the organisations.
- The organisation that had greater outsourcing levels was rated a less agile than the more insourced organisations.
- Generally people wanted more communication, collaboration, training and education, innovation and vendor management from the ICT team.
- Users wanted a more strategic, planned and considered approach to investment in ICT. It was acknowledged this was improving, in particular at CCS where a comprehensive ICT Strategic Plan and roadmap has recently been developed and implemented.
- PAE rated the highest the most often.

Recommendations:

- Adopt CCS application strategy architecture and planning process across the other organisations.
- Build and manage Training Needs Analysis (TNA) for 3 ICT functions including annual review of TNA.
- Develop and implement ICT vendor management framework and disciplines across the organisations to increase service levels from vendors, share framework implementation effort and support ongoing collaboration.
- Marion to facilitate cyber security awareness and annual penetration testing across all three organisations.
- Plan and undertake twice annual joint training sessions together to lift capability in the teams.
- Implement monthly service desk productivity and performance reporting with review meetings.
- Each council to leverage CCS approach to ongoing user community engagement.

Survey Outcomes

ICT systems and processes

- CCS was rated the highest in strategic decision making with regards to system investment (and noted as improving).
- Broader operations teams want more time to undertake systems training, testing and develop digital literacy.
- Service levels from major ICT vendors were considered unsatisfactory.
- Marion are stronger performers in data security and quality.
- PAE performed less well in ease of use and training than the other two councils.
- PAE and CCS perform significantly better with timeliness of system changes than Marion at present.

ICT team

- PAE rated the highest in every instance across the survey.
- The lower scoring areas across all organisations were in regard to innovation and communication regarding decisions taken.
- Marion rated second highest in most instances with the exception of innovation, having the right skill set and the team being able to deliver effective solutions to the organisation.

Verbatim

In addition the survey asked people to verbalise what they wanted more of and less of from ICT.

- More of:
  - Communication and updated/smarter system and hardware (all three councils).
  - System integration, system reliability and speed, training (Marion and PAE)
  - Collaboration and engagement (Marion and CCS)
  - Improvement and innovation and understanding user services and needs (CCS)
- Less of: (all three councils)
  - Formalities to seek advice/support/submit request
  - Obstructive and dismissive behaviour
  - System and network slowness and issues

2. Objective and Metric Development

The requirements and objectives of the ICT function were independently tested through collective sessions where the key deliverables for ICT in relation to the organisations' people, customers, community, assets and costs were brainstormed and distilled into the fundamental objectives of the ICT functions in local government.

The ultimate objectives for the overall ICT function were developed from this exercise and tested against the customer survey, futurist needs and Gartner data. In addition, the objectives, deliverables, strategies and activities developed independently by each council over time were used to test the collective objectives.

Key observations were:

- CCS is the most advanced in the development of frameworks to ensure ICT objectives were being met include ICT investment decision making principles, system roles and responsibilities, vendor management protocols and formal ICT project delivery disciplines.
- While some operational ICT performance metrics were available, these weren't actively reviewed by ICT managers with their teams.
- The ICT objectives present at each council had quite different focuses depending on the orientation of leadership in ICT and the organisation.
- The combined objectives of the three organisations became were quite comprehensive as they were however complementary across the three organisations.

Recommendations:

- Develop and implement ICT decision making, project delivery and ICT role and responsibility frameworks and disciplines across all three organisations to share effort in establishing appropriate ICT governance protocols and reduce risk of reinvestment and write off.
- Implement monthly service desk productivity and performance reporting with review meetings.

Final objectives

- Our **people** are skilled, engaged, proactive, innovative and effective and our user community consider us to be trusted advisors.
- We take a **strategic and planned** approach to IT investment, embracing the latest proven technology to provide fit for purpose solutions which support innovation and deliver value to the community.
- We provide **reliable, secure, seamless and efficiently managed** data, systems, infrastructure and services and enable our organisations to be effective in all they do.
- We ensure our people have the tools they need **to work together effectively, anywhere and anytime**.
- We embrace the principles of **open data** and continually seek new ways to **serve our communities, connect people and place**, and **provide transparency** into Council performance and decision making.
- We demonstrate leadership in gaining **insights from our information** to better respond to customer, community and business needs.

The objectives were used to generate a metric set for the ICT functions to enable an assessment of current state performance against the desired objectives for ICT. The metric set was extensive and so the list has been prioritised.

The prioritised identified metrics, what is required for their measurement and the baseline metrics (where able to be determined) are included in the *Table 1*.

Key observations were:

- Very limited operational performance reporting is in place or actively used within the ICT teams.
- Not all data is available systematically to facilitate the metrics developed by the ICT managers
- Governance frameworks being in place are an important precursor to being able to report on ICT effectiveness
- User surveying is an important source of information regarding the effectiveness of the ICT function as is the data gathered through the service desk system

Recommendations

- Develop and implement ICT decision making, project delivery and ICT role and responsibility frameworks and disciplines across all three organisations to share effort in establishing appropriate ICT governance protocols and reduce risk of reinvestment and write off.
- Implement monthly service desk productivity and performance reporting with review meetings.

TABLE 1: Objective, Metrics and Baseline

Objective	Metric	Tool/Precursor	Marion	CCS	PAE
Our **people** are skilled, engaged, proactive, innovative and effective and our user community consider us to be trusted advisors	Staff engagement	Pulse Survey			
	Training hours per person	Training System			
	Innovation rating	User Survey	4.4	4.5	4.6
	Effectiveness rating	User Survey	4.5	4.7	5.0
	Training Rating	User Survey	4.4	4.4	4.2
	Policy understanding rating	User Survey Policy Framework	5.2	4.9	5.2
	Trusted Advisor rating	User Survey	4.9	4.7	5.1
We take a **strategic and planned** approach to IT investment, embracing the latest proven technology to provide fit for purpose solutions which support innovation and **deliver value to the community**.	% strategy delivered	Application and Infrastructure Strategies			
	# and % of projects in compliance with decision making framework	Decision making framework			
	Project Delivery – on time	Project Reporting – dates	75%	28%	0%
	Project Delivery – on budget	Project Reporting - costs		27%	
We provide **reliable, secure, seamless and efficiently managed** data, systems, infrastructure and services and **enable our organisations to be effective in all they do**	Server availability	System monitoring tools	100.0%	99.5%	100.0%
	Network availability	System monitoring tools	99%	100%	100%
	Core application availability	System monitoring tools	100%	100%	100%
	Cyber Security Testing Compliance	Cyber Security Testing Plan			
	Service desk calls per user	Service desk reporting	16.0	19.8	11.2
	Average Service desk Response time – days	Service desk reporting	15	5	12
	% month service desk calls outstanding	Service desk reporting	60%	35%	29%
	Self Service Offerings	Listing			
	Self Service Sessions	Self Service Reporting			
	Vendor Manager Compliance	Vendor Management Framework (VMF)			
	Communicating Rating	User Survey	4.6	4.5	4.9
	Average ICT (non comms) cost per user	ICT cost User Numbers	9,676	9,931	7,605
	Average communications cost per user	Communication Costs User Numbers	145	417	137

Objective	Metric	Tool/Precursor	Marion	CCS	PAE
We ensure our people have the tools they need **to work together effectively, anywhere and anytime**.	Right tools rating	User Survey	4.4	4.5	4.5
We embrace the principles of **open data** and continually seek new ways to **serve our communities, connect people and place**, and **provide transparency** into Council performance and decision making	Open Data Sets Available		0	20	0
	ICT Community Services #s		6	12	0
	Community Services Accessed – sessions		790,332	62,375	-
	Channel Volumes	Receipting and Postage Reporting			
	Channel Costs	Receipting and Postage Reporting			
	Online Billing %	Rate Notice Reporting			
We demonstrate leadership in gaining **insights from our information** to better respond to customer, community and business needs	Data Governance Compliance	Data Governance Framework			
	GIS Layers Available	GIS reporting	228	313	149
	GIS Sessions	GIS reporting	0	210	0
	BI Data Sets Available	BI Platform			
	BI Data Sets Accessed	BI Platform			
	Value generated from BI analysis	Ad Hoc Capture			

3. Capability Assessment

Capability requirements for the ICT function were developed based on a wide number of sources including:

- Gartner advisory on ICT delivery models and the elements needed in them.
- Council X futurist workshops focused on looking to the future and the changing nature of work.
- Feedback from the ICT user community obtained through the customer survey.
- A systematic review of the system lifecycle and what is needed to adequately support ICT infrastructure and application development, implementation and support.
- The objectives developed in section 2.

The ICT managers assessed their function against the required capabilities identified using a rating which was moderated across the three councils by the ICT management group.

Gaps in capability were then jointly assessed to determine actions to be undertaken to address capability shortfall:

- Where one council was deemed to have strong capability and the remainder didn't - sharing capability was assessed
- Where all councils didn't have the capability – procuring or developing the capability together was assessed

Key findings were:

- Governance was a common capability requirement across the three organisations.
- The capability assessment and customer survey both highlighted training, innovation and problem solving as areas for development across all teams.
- There is opportunity to share capability without having to replicate the skill set in the areas of cyber security, enterprise architecture development, system roles and responsibilities, program delivery.
- API, integration and workflow have all been identified as critical skills in the future state of ICT as well as being strategic enablers of business performance.
- PAE are currently assessing rebuild of their EBP as the current Technology One tool is about to be deprecated. This is triggering a $380K potential reinvestment in their workflows in the organisation. Preferentially the integration and workflow tools would be agnostic to any ERP or major vendor to enable wider integration of applications.
- All three organisations are considering Business Intelligence platforms, regard BI capability as a necessity and believe they need to improve in this area.
- Agnostic Business Intelligence Platforms will be a key strategic enabler of collaboration in the near term.
- Marion have recently undertaken a comprehensive architectural assessment of BI platforms and are in the process of developing the capability to develop reporting in-house.

Recommendations

- Develop and implement ICT decision making, project delivery and ICT role and responsibility frameworks and disciplines across all three organisations to share effort in establishing appropriate ICT governance protocols and reduce risk of reinvestment and write off.
- Plan and undertake twice annual joint training sessions together to lift capability in the teams.
- Trial a shared Gartner subscription across the councils, to provide access to leading edge and cost effective advisory services across the councils
- Adopt Marion workflow development rules across all three councils and review existing workflow requests against criteria. Purge outstanding low value workflow requests.
- Undertake analysis of all organisational workflows, determine priority workflows based on community impact and allocate resources to those priority areas.
- Formalise cross council initiative to develop and implement operational metrics, BI systems and capability, and the processes required to ensure the capability is used effectively within the organisations, leveraging work performed to date at Marion.

4. Resourcing and Operating Model

FTE Data

Table 2 shows the Full Time Equivalent staff for 1718 by ICT function. It should be noted the additional resources procured at CCS through AMS and contract arrangements are not included in the table.

Key observations included:

- Different resourcing levels in the application development and project delivery space despite quite similar volumes of initiatives being driven from within the organisations.
- Specialist skill sets unique to one organisation might present the opportunity to share capability.
- Some salary disparity exists between the organisations for similar roles.
- Removing application managed support services represents an opportunity to secure in-house resourcing longer term without increasing overall costs at Marion in particular.

Recommendations:

- Develop and implement ICT decision making, project delivery and ICT role and responsibility frameworks and disciplines across all three organisations to share effort in establishing appropriate ICT governance protocols and reduce risk of reinvestment and write off.
- Plan and undertake twice annual joint training sessions together to lift capability in the teams.
- Incorporate impact of collaborative GIS function into any assessment of GIS options at Marion.
- Undertake formal workforce planning for ICT with HR involvement to determine succession planning and identify skills and attributes to hire for in future.
- Reduce and remove application managed support services to bring more development capability in-house (Marion in particular).

TABLE 2: FTE by activity

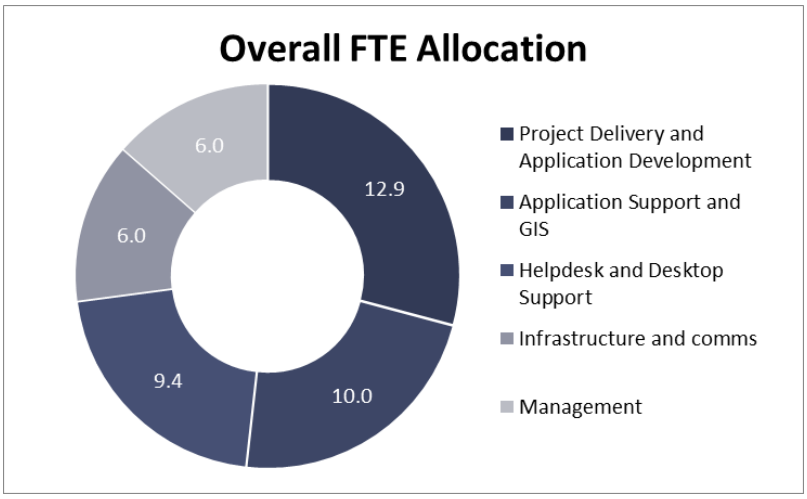
Function	Marion	CCS	PAE	TOTAL	Comment
Project Delivery	1.0	4.0	1.6	6.6	Difference in mix between CCS and PAE. Solution architect unique at CCS.
Application Development	0.6	2.1	3.6	6.3	Marion increased to 2.0 in AD in 1819 – PAE include technical web developer
Project Delivery & Application Development	1.6	6.3	5.2	12.9	Marion lower however significant program expectation
Application Support	1.3	1.8	2.5	5.6	Largely vendor mngt at Marion
GIS	2.0	1.0	1.8	4.8	Marion historically 1.0FTE
Service Desk	1.0	3.6	2.0	6.6	
Desktop Support	0.5	1.0	1.0	2.5	
Service Desk and Desktop Support	1.5	4.6	3.0	9.6	Marion not staffed to manage incoming, CCS volume driven
Infrastructure and Communications	2.5	2.0	2.0	6.0	
Business Intelligence	-		-	-	
Management and Indirect	2.0	2.0	2.0	6.0	
TOTAL (Pre Information Management)	**10.9**	**17.5**	**16.5**	**44.9**	
Document Management	-	5.6	6.5	12.1	Function is not part of ICT at Marion
TOTAL	**10.9**	**23.1**	**23.0**	**57.0**	

Visibility of application development and delivery resources

More than 30% of the overall resource effort across the three organisations is oriented toward development and implementation of new functionality. There is a significant demand for these resources from the user community.

As this is an internal resource, a cost that is funded through recurrent budgets and is not attributed to the cost of the initiatives and projects being delivered, the visibility of how the $1.4M annual investment in these resources are applied is quite low. Undertaking value based prioritization and allocation of these resources will increase community benefit from this highly valued and valuable resource pool.

FIGURE 1: Overall FTE Allocation



Unique Resources as an opportunity to share capability

There are a number of unique roles across the councils which present opportunities to share capability and focus. These roles are:

- Solution Architect – CCS – this is a unique role at CCS aimed at optimisation of solution development for new functionality including assessing options in the market for any given functionality.
- PMO Manager – CCS – this role is also supporting management of the Information Management function at CCS however this role is aimed at managing the overall delivery program for ICT at CCS, as well as building the appropriate project delivery and business analyst disciplines into the team.
- System Sponsor role – PAE – this role is part time and dedicated to developing system roles and responsibilities, educating people on their roles in relation to systems, establishing system champion roles and putting in place the infrastructure to support these things.
- Web Development – PAE – this is technical web development capability. CCS and Marion website management sits in the communication teams which has resulted in a greater focus on content management while there is a need to rely on external support for more technical development.

Disparity in Project Delivery and Application Development Resourcing

Marion have the lowest number of project delivery and application development resources however their project portfolio is as expansive (measured on initiative numbers alone) as that of the CCS and PAE teams who have more resources in this area.

The lack of project delivery capacity at Marion has seen a significant number of ICT related projects being initiated and delivered outside of the ICT team which has resulted in reinvestment in projects (i.e.: WAP tool redevelopment, online facility booking system redevelopment) and projects only part delivered (project delivery system finance integration and cost management not complete).

CCS and PAE have similar size project portfolios and teams however CCSs resources are more heavily oriented to project delivery (managing) where PAE's resources are oriented to application development (building) noting that PAEs application development resources also project manage some of the initiatives they are working on. The CCS project management overhead equates to 80% of the identified project investment.

PAE identified project communication and change management as capability development areas.

CCSs project costs historically have been significantly higher than those of PAE due to the majority of project development relying on external build capability (see Project Delivery and Application Development section below).

Overall there may be opportunity to augment the capacity gaps at Marion, and the formal PD capability gaps at PAE with some of the capacity and capability at CCS, supporting a reduction in CCSs project costs.

Use of external services

Marion have a largely outsourced model for technical application development and support, escalated desktop support and overflow helpdesk support. This support can be charged at more than $200 per hour. The annual cost for this support (which is unique to Marion) is around $180K per annum and yields less than 0.5FTE. In addition, these

resources and vendor arrangements need to be managed which adds another layer of overhead to the 0.5FTE in resourcing.

Marion's model was driven by a historic perception that risk could be outsourced. Marion's historic limited in-house development and support capability is reflected in the user survey which required a different mix of skills and greater agility and innovation being needed in the team. There has been a recent move to bring more development capability in-house and this is working well.

Average Cost of FTE

There appears to be disparity in pay rates within the councils and across the councils. While there is a perception that some councils pay more for certain pay classifications, there is often a difference in the manner in which those classifications are applied to roles, resulting in differences in pay between like roles in different organisations of what can be in excess of 25%.

Single point person risk

There is single point person risk in a number of functions. In some instances this has been compensated for through use of external suppliers or alternatively having an additional resource employed (i.e.: GIS Marion).

Succession planning

In the majority of the ICT teams there is not a natural successor for the ICT Manager roles. CCS have had to go to market to replace their ICT managers twice in the past 2 years and it is recognised there is not a likely successor in the PAE team. The PAE ICT Manager is intrinsic to the team and their day to day functioning and has been responsible for the development of a highly effective and resourceful ICT function and environment. Development of a succession plan for the ICT leadership roles across the councils is recommended.

5. Overall Costs

Operating costs of $12.6M (including depreciation and excluding record management) are incurred annually to provide ICT support to the organisations. The majority of ICT costs related to contractors, consulting and licence fees followed by employee costs.

ICT Operating Spend by Cost Category

TABLE 3: Total Cost by Spend Category

Operating Costs by Type	Marion	CCS	PAE	TOTAL	Comments
Employee Costs	1,232	1,888	1,404	4,524	
Contractors, Materials and Other	1,684	2,195	2,153	6,032	Includes contractors, consultants, licence and application fees
Depreciation	253	1,130	637	2,020	Software and hardware depreciation is included
TOTAL	**3,169**	**5,213**	**4,194**	**12,576**	

FIGURE 2: ICT costs by spend category

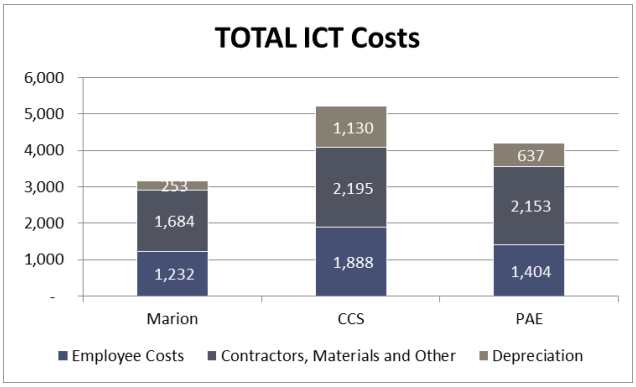
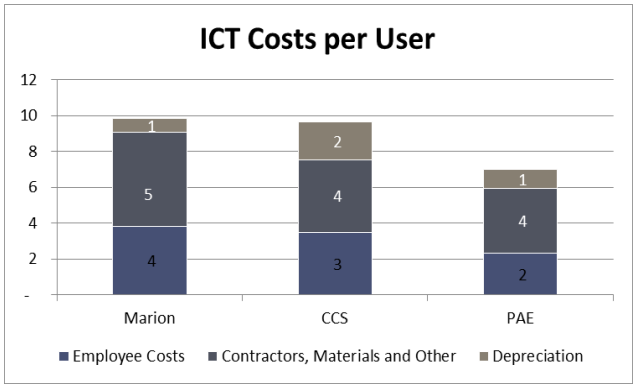


FIGURE 3: ICT per user costs by spend category



Key observations are as follows:

Marion

- Marion's largely outsourced model drives higher external costs without and offset in lower internal costs as staff are still retained to manage the vendor relationships and work queues with the vendors.
- Marion's proportionately higher reliance on vendors and consultants for ICT delivery is reflected in the organisations view of the team's skills and effectiveness (see Customer Survey analysis).

CCS

- CCS are the highest overall cost function on a per user basis. Higher employee costs are due to the volumes of the service desk, greater system development investment and higher average costs per person.
- Higher depreciation costs are due to higher software development costs expected to be due to CCSs historic leadership position in the development and take up of new TechOne software functionality.

PAE

- PAE have very similar general systems functionality to CCS, however it has been delivered at lower cost due to PAE adopting products that have already evolved and using internal resources rather than vendor developers.

ICT Operating Spend by Function

TABLE 4: Total Cost by Function

Operating Costs by Function	Marion	CCS	PAE	TOTAL	Comments
Application Development and Project Delivery	142	1,029	656	**1,827**	CCS includes $0.1M of write offs and a higher consulting costs
Application Support	1,225	1,674	1,744	**4,644**	
Service desk and Desktop Support	399	655	358	**1,412**	Higher volumes resulting in higher FTE and cost per FTE at CCS
GIS and BI	302	253	243	**797**	BI functions minor at each organisation
Infrastructure and Communications	791	1,043	768	**2,602**	CCS costs reduced $130K 1718 due to contract renegotiation
Management and Indirect	310	558	426	**1,294**	Management structure similar CCS investing more in training etc
TOTAL	**3,169**	**5,213**	**4,194**	**12,576**	

TABLE 5: Per User Costs by Function

Operating Costs by Function	Marion	CCS	PAE	TOTAL	Comments
Application Development and Project Delivery	0.4	1.9	1.1	**1.2**	CCS includes $01M of write offs and higher one off consulting engagements
Application Support	3.8	3.1	2.9	**3.2**	Office licences bought outright at PAE with no software assurance purchases.
Service desk and Desktop Support	1.1	1.2	0.6	**0.9**	Higher volumes resulting in higher FTE and cost per FTE at CCS
GIS and BI	0.9	0.5	0.4	**0.5**	BI functions minor at each organisation
Infrastructure and Communications	2.6	1.9	1.3	**1.8**	
Management and Indirect	1.0	1.0	0.7	**0.9**	Management structure similar CCS investing more in training etc
TOTAL	**9.8**	**9.6**	**7.0**	**8.6**	

6. Application Development and Project Delivery

Application Development and Project Delivery Costs

TABLE 6: Application Development and Project Delivery Costs by Spend Category

Costs by Category $000s	Marion	CCS	PAE	TOTAL	Comments
Employee Costs	168	626	468	**1,262**	
Contractors, Materials and Other	188	304	45	**537**	Primarily consulting costs
Stranded Costs	-	99	-	**99**	
TOTAL	**356**	**1,029**	**513**	**1,898**	

The three organisations deliver similar sized ICT programs each year. Marion's ICT function is distributed and many of the costs of system implementation are hidden. PAE deliver their programs using resources who largely project manage and configure their systems. CCS deliver their projects using more formalised project managers and consulting support.

Application Strategy, Decision Making Frameworks and Stranded costs

CCS incurred write offs of $0.1M in 1718, with an additional $0.1M in 1819 due to ICT type projects that have commenced without full decision making disciplines and ICT support around them. Issues have included not documenting requirements prior to software and vendor selection leading to the software not being able to deliver against user needs.

In addition, the decision to commence projects at CCS and Marion, until recently, has been made in the absence of an overarching strategy, resulting in some initiatives meaning a prior decision needed to be subsequently reversed and costs written off.

Application Development Resource Allocation and Hidden Investment

TABLE 7: Application Development and Project Delivery Costs by Spend Category

Employee Cost Allocation	Marion	CCS	PAE	TOTAL	Comments
Project Delivery	117	525	152	**794**	Costs aren't included in project costs
Solution Architect		81		**81**	
Application Improvement			247	**247**	Workload driven largely by user requests
Workflow Development	26 (75)[1]	43		**69 (118)**	Workload driven from service requests
EDRMS Development	26 (75)		69	**95 (144)**	Workload driven from service requests
TOTAL	**169 (269)**	**649**	**468**	**1,286 (1,386)**	

FIGURE 4: Project Delivery and Application Support Costs

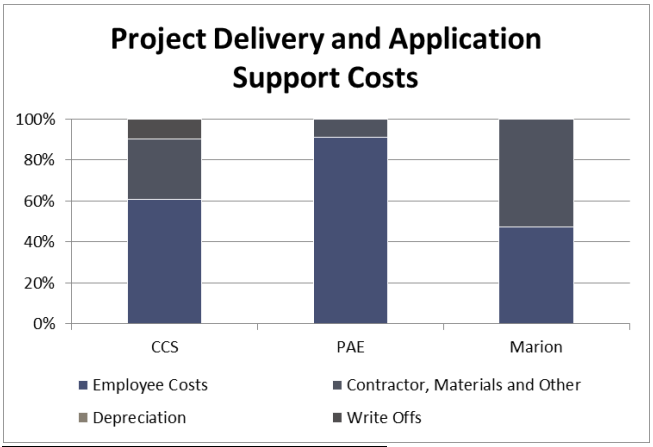
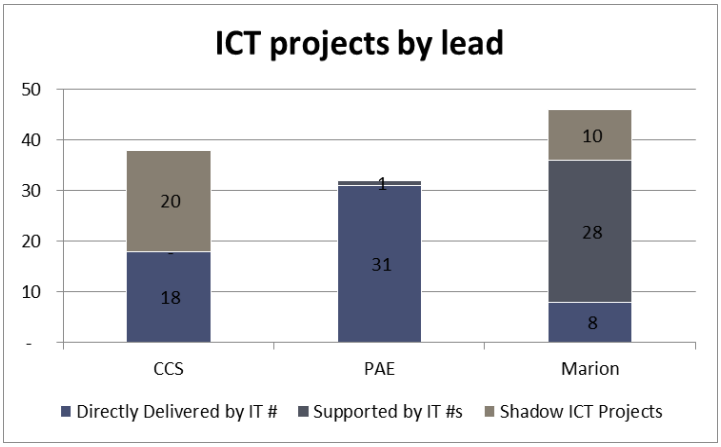


FIGURE 5: ICT Projects by Lead



[1] Figures in brackets are adjusted for the uplift in development resources at Marion in late 1718

Key observations from this analysis were:

- Project delivery and development resources are not costed into ICT project costs at any of the organisations resulting in the true cost of ICT investment not being clear.
- Investment in individual projects of up to $0.4M in value have been invested in without a business case being prepared as they have been able to be delivered from internal resourcing and free funds in recurrent budgets.
- Up to $0.5M per annum in resources are invested in initiatives that are generated through a service desk request, but which aren't subject to an evaluation of the value. This workload also required significant oversight from the ICT managers although it isn't transparent as a discretionary project.
- More than $0.2M in invested in workflow development in the ICT teams each year. Workflow is to support business process efficiency however prioritization of this workload is based on user demand rather than likely business impact.
- CCS have $0.2M+ in recurrent spend which is applied to different operating projects each year, that are not passed through the same assessment process as other annual operating and capital projects
- While not fully documented, decision making appears to be effective at PAE where procurement policies require any ICT based procurement to be approved by the ICT manager who applies strong commercial oversight to investment decisions.
- Visibility of the ICT delivery program varies significantly between the organisations with Marion's ICT program not visible due to the distributed nature of investment in ICT systems across the organisation. This has led to a high level of reinvestment in the same functionality, issues with completion of projects and a disconnect between organisational strategy and ICT investment. PAE program is managed tightly but is not widely visible while there is high visibility of a large part of the ICT program at CCS.
- CCS are currently investing in the development of solution architect and project delivery disciplines in their AD and project delivery areas which would be valuable to the other councils.

Recommendations:

- Develop and implement ICT decision making, project delivery and ICT role and responsibility frameworks and disciplines across all three organisations to share effort in establishing appropriate ICT governance protocols and reduce risk of reinvestment and write off.
- All ICT investment to be supported by a business case which includes an assessment of the value of the investment to the community and other stakeholders.
- Implement cut off / assessment limits across all three councils to ensure application development and support resources are working on organisational priorities.
- Implement Collaborative ICT Project Delivery across the organisations to deliver functionality together and once, reducing net effort, cost and improving overall outcomes by making the most of everyone's thinking.
- Align ICT systems project by project through Collaborative Project Delivery creating options for greater future collaboration.
- Deploy a shared ICT program manager across the three councils to coordinate project planning and delivery, to ensure delivery against application strategy objectives including ensuring alignment of systems project by project over time in line with agreed principles.

TABLE 8: Application Development and Project Delivery Metrics

	Marion	CCS	PAE	Comments
FTE				
Project Delivery FTE	1.0	4.0	1.6	Ratio of dedicated PM to development staff varies
Application Development FTE	0.6	2.1	3.6	PAE higher in-house development capability
TOTAL FTE	1.6	6.1	5.2	
Average cost per FTE	105	103	90	
Composition of spend				
% contractors, materials and others	53%	47%	9%	PAE manage program largely in-house
Projects Delivered				
Projects per PD FTE	46	8	20	Marion PD resources advisory rather than delivery
ICT Projects Identified	46	38	32	Number may be incomplete due to incomplete capture of ICT projects
Directly Delivered by IT #	8	18	31	Marion ICT model distributed
Supported by IT #s	28	-	1	Large Marion portfolio delivered outside of ICT
ICT initiatives not treated as project	10	20	-	Based on one off spend in ICT costs
% ICT projects led by ICT	17%	100%	97%	
Investment				
TOTAL Identified Project Investment	356	1,092	513	Not all project costs able to be quantified
Average cost per project	20	40	16	CCS higher average cost projects – more external and dedicated PM support
Average costs for non-project initiatives	36	51	-	No identified shadow projects at PAE
Visibility and Delivery				
% Projects Managed as a Project	78%	47%	100%	Large recurrent spend at CCS
% Projects visible through a program	78%	47%	-	PAE project manage but not visible external to ICT
Directly Delivered by IT Budget $s	NA	698	NA	Note ICT projects are not tracked to a costed budget at Marion and PAE
Directly Delivered by IT Actual $s	NA	885	NA	As above
# Delivered on time	6	5	NA	PAE doesn't retain original deadlines in project reporting
% delivered on time	75%	28%	NA	Marion deadlines have been revised, delivery against timeframes at CCS low in 1718, lifting in 1819
Budget overrun / (underrun)	27%	NA	NA	Cost overruns measured against original budgets
Portfolio value generation				
Confirmed value of projects realised	NA	NA	NA	Value delivered by the ICT project portfolio is not able to be measured with business cases not present for all projects

Future Work Programs

Analysis was undertaken of the key functionality each of the organisations were seeking in the short to medium term.

This demonstrated there was reasonable overlap in organisational needs providing opportunity to work together on future project delivery.

TABLE 9: Future Work Programs

Long Term Financial Plan Projects	CCS	Marion	PAE	TOTAL	Together	% saving	Benefit
Asset Management System	-	1,560	-	1,560			
Business Intelligence	150	133	75	358	Y	33%	119
Business Process Management	-	-	-	-			-
Ci Migration	550	-	1,620	2,170	Y	25%	543
Cloud Transition	250	-	-	250	Y	33%	83
Collaboration Tools	150	-	-	150	Y		-
CRM	500	-	160	660	Y	33%	220
DPTI ePlanning	34	-	-	34	Y		-
Enterprise Information Management	30	-	-	30			-
Service desk System	43	14	-	57	Y	33%	19
IoT	-	-	-	-	Y		-
Open Data	25	-	-	25			-
Project Management	-	125	-	125	Y		-
Unified Communications	184	426	200	810	Y	33%	270
Website – New Platform	-	-	-	-	Y		-
Website – Self Service	75	-	-	75	Y	25%	19
Intranet Upgrade	76	-	-	76	Y	33%	25
Records Management Upgrade	-	-	620	620	Y		-
Business Planning	-	-	140	140			-
TOTAL	**2,067**	**2,258**	**2,815**	**7,140**			**1,298**

7. Application Support and Licensing Costs

Licensing and support costs present as the single biggest cost to the organisations for ICT. Detailed analysis was undertaken on licensing across the organisations including an assessment of functionality available, costs and use.

Overall costs

Key observations were:

- Licensing costs are highest at Marion driven by use of AMS (discussed above), significantly higher ERP and document/record management solutions.
- Licensing costs are lowest at PAE where they have not procured aspects of licencing that allow for progressive upgrades of Office. This lower cost is not likely to be sustainable as Microsoft move clients to the O365 cloud offering.
- Functionality available at each of the councils is very consistent however strategic asset management, contract management and recruitment management functionality was available and not used.
- Enterprise Licensing for ERP systems and Microsoft and Office represented the highest costs followed by asset management and document management systems.
- Duplication of functionality existed at Marion in particular, with workflow duplication at CCS. PAE did not appear to have significant duplicated functionality.
- Tech One items identified:
  - TechOne modules were being paid for and no longer in use at PAE and CCS,
  - TechOne licence fees escalate based on a CPI that is not published and is higher than typical CPI indices,
  - TechOne modules are purchased in advance in response to end of year special pricing rather than a previously identified need. These modules can be licenced for up to three years prior to being used.
- Functionality costs were noted to vary significantly in the following functionality:
  - CCSs Strategic Asset Management Solution,
  - Marion's ERP functionality,
  - Marion's new website solution,
  - Marion's Ungerboek facility management system.

Recommendations

- Develop and implement ICT vendor management framework and disciplines across the organisations to increase service levels from vendors, share framework implementation effort and support ongoing collaboration.
- Undertake joint vendor management and procurement saving time and effort managing relationships, going to market, and potentially improving commercial outcomes as a result.

TABLE 10: Application Support and Licensing Costs

Application Support	Marion	CCS	PAE	TOTAL	Comments
Employee Costs	128	131	200	459	PAE have 0.5 FTE dedicated to user education and 1FTE web development unique to PAE ICT
External Support Costs	27	32	-	59	
Application Managed Support	142	32	-	174	$78K Civica and $54K Empired at Marion, Tech One at CCS
Licensing and Support	1,062	975	790	2,827	Majority with ERP and Empired at Marion and MS Licensing at PAE
Depreciation	58	582	340	980	Reflects higher development costs at CCS over recent history
TOTAL Costs	**1,417**	**1,752**	**1,330**	**4,499**	
Per user $000s	4.4	3.2	2.2	3.1	

TABLE 11: Application Licensing and support costs by function

Support and Licensing		Marion	CCS	PAE	TOTAL	Comments
Enterprise	Enterprise - ERP	399	220	259	861	Hosting and AMS for Civica at Marion
	Enterprise - Microsoft	218	282	123	623	PAE outright purchase
	Enterprise - Workflow	17	39	-	56	PAE use T1 modules
	TOTAL	**617**	**541**	**382**	**1,540**	
Technical Engineering	Asset Management	80	134	62	276	CCS T1 product
	Engineering Design	18	26	11	56	
	Water Management	1	26	-	27	Unique facility
	TOTAL	**99**	**187**	**74**	**359**	
Document Management		142	54	91	288	Empired AMS at Marion
Library Services		70	21	51	142	Ungerboeck facility management system
Marketing		59	37	35	132	New website platform at Marion
Strategy and Development		26	17	47	91	Added idata modules and smarty grants at PAE
Customer Service		21	1	19	41	PABX CCS?
Revenue billing and collection		11	25	5	41	Rate modelling software at CCS
Finance and Commercial		17	-	-	35	Planning modules at Marion (duplicate?)
Human Resources		-	16	17	33	Recruitment application
Risk Management		4	14	7	25	
Other		61	84	38	183	
TOTAL		**1,144**	**999**	**765**	**2,908**	
Licensing Cost per User		3,550	1,846	1,272		No software assurance PAE
MSoft Licensing Cost per user		677	521	204		
Msoft Licensing per indoor staff		801	724	301		

8. Service Desk and Desktop Support

The service or help desk for an ICT function is a great source of insight into overall ICT service effectiveness as well as being the primary contact point for ICT and the organisations' operations. Comprehensive analysis was undertaken on Service Desk effectiveness and also root cause analysis of the service desk requests themselves to determine opportunities to improve ICT effectiveness.

Key Metrics

Key service desk metrics for each of the three councils are included in Table 12. The items highlighted are the exceptional results that are considered below.

TABLE 12: Service Desk Metric Comparisons

Metric	Marion	CCS	PAE	Comments
Hours of Operation	8:30-5:00 Mon-Fri	8:30 - 5:00 Mon-Fri	7:30-5:30 Mon-Fri	
Volumes				
Total Service desk requests	5,137	10,703	6,742	2,600 requests at CCS for invoice additions + other information management
Calls per user (implied)	18	20	11	CCS 4.5 calls per user for IMS related calls
% recorded	50%	87%	28%	PAE record keeping per call is intensive
Timeliness				
Outstanding % of month	60%	35%	29%	1-2 weeks outstanding
Average closure days	15	5	12	CCS 8.5 with invoice requests removed
Minimum closure days	-	-	-	
Maximum closure days	515	367	356	
Resolution				
Implied First call resolution %	79%	44%	84%	CCS information management work and higher hand off rates to tech
Productivity				
Dedicated Service desk FTE	2.50	5.00	3.00	Majority of calls completed by 1.5FTE at Marion
Handled per FTE per annum	2,055	2,141	2,247	
Per FTE per business day	9	10	10	CCS output rate will reduce with redirection of invoices
Cost				
Service desk Cost	188	444	194	
Cost per call	$36.68	$41.49	$28.71	Driven by people costs and productivity
Cost per FTE	75	88	64	

Service Desk Tool

Capturing service desk requests in a way that allows for effective reporting and analysis can highlight systemic failures and issues. Resolution of the root cause of these systemic issues can reduce service requests significantly, creating service desk capacity and improving customer experience. Service desk data and reporting can also help manage productivity, first call resolution and customer experience (including keeping the customer informed) if it has the capability and is managed appropriately.

All three councils currently have approval to replace their service desk systems.

Observations and findings

The following key observations and findings were noted. It is proposed these findings are incorporated into the implementation of the new help desk systems expected at each of the councils by the end of 19/20:

Service Desk Call Drivers

- CCS service requests were significantly higher on a per user basis as a result of Information Management (IM) team requests being logged in the service desk system. Each of these calls are then manually allocated to the IM team. These records could be automatically allocated to the records team through service desk allocation rules.
- Capture rates vary between 28% at PAE to 85% at CCS due to small tasks (received by walk-up, phone call or email) that are able to be resolved immediately not being logged by service operators.
- Testing at Marion highlighted not logging or capturing all service desk calls results the inability to detect systemic high volume low handle time issues not being detectable.
- Service desk categories that allow for quick recording of small systemic tasks would support improved capture rates as would having third party support requests logged centrally.
- Users logging more calls through the service desk would help the service desk but may compromise perceived levels of service.
- A number of root causes and self-serve options have been identified that will reduce the need for users to contact the service desk by 20%. These initiatives and a conservative estimate of their impact are set out in table 14 below.

Productivity and service levels

- Up to 60% of calls remain outstanding at the end of the month at Marion and more >1 week of calls remain outstanding at CCS and PAE. Average days to resolve are between 1.5 and 3 weeks. These indicators suggest opportunity for improvement in responsiveness.
- CCS first call resolution is lower due to the high volume of records management tasks logged through the service desk discussed above. Having these calls allocated directly to records management would lift CCS first call resolution to 78%.
- Productivity varies by around 10% between the councils. Average handle times are calculated at 40-50 minutes. Productivity is not able to be measured due to the initial recipient of the call and the reassigned recipients not able to be identified in service desk extracts. Measurement and management of productivity and comparison of productivity by team generally lifts productivity by 10-20% across a team.
- The FTE cost of resolution of a service desk call is between $30 and $40 on average. The variation in this cost is driven by variation in productivity and pay rates for service desk operators with Marion having the lowest paid person and CCS having a member at team leader level.
- Marion use external overflow support from Interintra which comes at $500 per day. It is recommended InterIntra is replaced with inhouse resources which will increase helpdesk capacity without net increase in cost.

Recommendations

- Review and purge backlogs as part of helpdesk system implementation.
- Implement user self-serve options as part of the help desk system implementations.
- Implement solutions to remediate systemic help desk issues (refer table 14).
- Formalise the helpdesk implementation as a cross council project.
- Ensure functionality including auto allocation, quick job capture, mobility, analytics, structured reason codes and traceability of operators all form requirements of the new helpdesk systems.
- Design and implement ComConnect improvements to remove / reduce handle time of support calls (Marion only).

Service Desk Root Cause Analysis

Analysis of the underlying basis for service desk requests was undertaken by sampling more than 1,500 service desk requests across the councils. That data has then been explored with the service and support teams to identify potential solutions to improve customer experience and reduce the need for users to call the service desk. The findings and opportunities follow.

TABLE 13: Service Desk Driver Overview – Per User Calls per Annum

Per user help desk calls	Marion	CCS	PAE	Comments
Underlying Reason				
Service Request	11	12	6	7 higher at CCS due to IM requests going through service desk, Marion is driven by requests able to be satisfied through self-serve, network access requests, comconnect access requests, DL and email signature modifications
Fault / Failure	7	5	4	Colligo and Comconnect issues at Marion, ECM issues at PAE
Unknown		3	2	Unable to classify due to lack of data in system
TOTAL By Cause	**18**	**20**	**11**	
Area of issue				
Software	10	13	5	7 higher at CCS due to IM requests going through service desk, Marion is ComConnect and Colligo failures
Hardware	3	2	2	PC roll out queries at Marion
Other	4	2	2	Other at Marion driven by network drive access and password lock outs which are avoidable
Unknown/other	1	3	2	Unable to classify due to lack of data in system
TOTAL By Area	**18**	**20**	**11**	
Top reasons				
Issue or failure	4	5	2	Colligo, ComConnect, Tech One and ECM latency issues
Configuration	3	6	1	Distribution lists, email signatures and IM requests at Marion and IM related requests at CCS
Access	3	1	1	Comconnect and network drive access issues at Marion
Top Systems				
EDRMS	2	9	1	Records management all processed through helpdesk at CCS. CCS have also initiated changes to reduce IM requests through self serve
Civica	2			Tech One ERP not comparable at CCS and PAE
Email	3	1	1	Colligo integration, directory access, signature modifications and DL list management drive Marion performance

TABLE 14: Key Service Desk Improvement Opportunities and expected savings

Hours saved annually	Marion	CCS	PAE	Comments
Self Serve Solutions				
Password reset extension			55	Simple fix
Password reset self-serve	42	25	10	Mobile solution designed by PAE in response to the review which could be adopted by all 3
Email signature self serve	18			Simple access change
Container creation self				Handle times not provided
Self-Serve Directory Access				Handle times not provided
Self-manage distribution lists	10			Process change
Soft record delete access		56		Initiated by BI team at CCS
Account lock out issue	40			Small amount of external support required to resolve as unable to resolve internally
Printer / scanner follow me	12			
Onboarding automation	19		4	Redirect workflow resources to higher priority work flows
Collaboration access	13			
Resolve Root Cause				
SPAM process		25		SPAM rule change
Colligo Integration				Handle times and so savings not estimated
ComConnect architectural fix	2,134			Architectural changes at Marion would reduce significant reactive workload
Automation				
Automation invoices		44		CCS identified opportunity to automate invoice workflow
User training				
Business Champions	12		5	While not a big helpdesk driver – user support was a highly requested item in the user survey
Rules Based Allocations				
Auto Allocation	26	133	40	Functionality required as part of new helpdesk systems
Overall time saved	**2,228**	**283**	**119**	
Helpdesk Resources	94	283	119	Expect help desk savings are underestimated due to handle times understated against resolved calls
Application Support Resources	2,134			Will free up >1.0FTE if underlying ComConnect issues as defined by the Marion ICT team are resolved
Contacts saved/streamlined	1,774	1,842	1,433	
Contacts per user saved	5 (27%)	3 (15%)	2 (20%)	Significant lift in user experience through issue resolution and self serve

9. Network Infrastructure and Communications

Work was undertaken to review the organisations' costs, productivity, asset management plans strategies regarding network infrastructure, assets and communications.

Infrastructure Strategy

The network communications and infrastructure strategies of the three organisations are currently quite different and drive different cost and customer propositions for the organisations:

- **PAE**

PAE has an on premise data room, an offsite DR location and refreshes server infrastructure every three years. PAE are the only of the three councils to use thin clients as their predominant desktop hardware. PAE have a comprehensive infrastructure replacement forecast for their LTFP however they do not have an infrastructure or digital workplace strategy.

- **CCS**

CCS has developed an infrastructure strategy over the past 18 months as is considering cloud and SaaS technology as one of the key strategic actions identified in that strategy. This work has supported PAE to undertake their own Cloud assessment as part of this review.

CCS is part way through the implementation of its digital workplace strategy. The transition to two in one devices at CCS is driving an increase in device costs for the organisation which appears to be around $0.2M per refresh.

- **Marion**

Marion do not have an explicit infrastructure strategy and are not considering cloud technology at present - although choose SaaS where available mainly for team capacity and risk considerations.

Marion have made a significant move to mobile technology as part of their recent desktop hardware refresh assessment with two-in-one devices being adopted in a similar fashion to CCS. This decision will increase the cost of a desktop refresh at Marion by around $100K every 3 years.

Marion have invested in acquisition of their own fibre optic network, investing $1M in this area in the last 10 years resulting in Marion not having to pay a carrier to provide them with communications services. This appears economic overall on the proviso the technical life of fibre optic remains at 25 years. Current information in the market suggests this assumption is sound.

Infrastructure Asset Management Plans

Infrastructure asset management planning is in place at all three councils with hardware refreshes planned into the LTFP recurrent and capital forecasts.

Areas for improvement include optimisation of asset life (there is a variation of 100% between some asset categories at the councils) and adequate capacity planning albeit this has only shown up as an issue where PAE employee growth has outstripped expectations over recent years resulting in their VDI environment being at capacity sooner than desired.

Improvement in asset management planning capability was identified by all three councils as part of their capability assessments.

Costs

Key drivers of cost were:

- Contract pricing for network services for CCS which was resolved in late 1718 by the new ICT Manager.
- Use of high cost external support at Marion for third level desktop support which is managed in-house at the other councils (with the same staffing levels).
- Hardware sizing.

TABLE 15: Network Infrastructure and Communications Costs

Infrastructure and Communications	Marion	CCS	PAE	TOTAL	Comments
Costs $000s					
Employee Costs	207	240	144	590	CCS employee costs are augmented by external support (see below) – FTEs consistent
Depreciation and Leasing - Desktop Hardware	110	180	228	518	Marion PC numbers
Depreciation and Leasing - Infrastructure	372	389	332	1,047	Marion out of lease servers, PAE lease term
Communication Costs	47	213	82	355	CCS renegotiated communications costs at end 1718 saving $130K annually
Internet costs	35	11		46	
External support	98	76		174	Datacom third level support for hardware, CCS NIW and Rachis Network Advisory costs. Note no similar costs at PAE.
Other Costs	216	139	146	710	Network applications, UPS, WAN, $55K of fixed line charges at Marion that should be removed
TOTAL Costs	**1,037**	**1,250**	**932**	**3,219**	
Per user	3,222	2,310	1,551	2,199	Lower overall per user costs at PAE

Operational Indicators

Due to the different nature of the approaches to infrastructure at each of the councils, a range of operational indicators needed to be considered to determine the effectiveness of use of ICT assets and the reliability of the overall service.

Key observations were:

- Server utilisation may be able to be improved based on storage overcapacity across the networks at PAE and CCS.
- Annual operating costs associated with server leases at PAE and CCS could be reduced through the extension of server leases to 4 years as a minimum – this would equate to $65K per annum at PAE.
- Hardware is typically fully paid for over the initial lease term. Leases should have terms that support rate reductions following lease extensions. PAE leases don't reflect these terms. Marion terms support rate reductions and Marion typically actively manage reductions at lease changeover however 2 extensions had been overlooked and were valued at $28K per annum.
- Server costs may be an opportunity at PAE where the costs per unit appear to be higher and specification appears to be similar – the price difference is worth more than $0.1M per refresh.
- The digital workplace strategies do not appear to have been fully costed at CCS and Marion prior to the decision to change device mode being made. This has driven increases in device costs of $0.2M and $0.1M respective in each refresh cycle (the cost per device increased from $1K to $2K).
- System availability is monitoring may present an opportunity to address latency issues and outages more proactively.
- Marion has invested at a greater rate in cyber security than the other councils. It has been agreed that the annual investment could be reduced from $80K to $30K to sustain their rating.

Recommendations:

- Extend infrastructure leasing at Port Adelaide Enfield savings $65K per annum.
- Negotiate rate reductions on 2 extended leases at Marion.
- Cost impacts of ICT strategies.
- Review competitiveness of costs of infrastructure at Port Adelaide.
- Reduce consulting spend on cyber security to $30K at Marion.
- Marion to facilitate cyber security management across the three councils to support improvement in risk at PAE and CCS
- Actively review and manage network and application performance.

TABLE 16: Infrastructure and Communications Key Metrics

	Marion	CCS	PAE	Comments
Servers				
Physical Servers	14	28	21	
Used Storage capacity - Primary	61,000	32,723	26,361	
Storage overcapacity	27%	44%	45%	Marion using new technology which helps reduce overcapacity
Average Age	3.4	3.0	2.3	
Average EUL	3.3	5.0	3.0	Confirmed min 4 year EUL technically sound
Replacement Cost (incl arrays)	278	500	757	
Replacement Cost per unit	20	18	36	
Investment per user over useful life	860	920	1,260	PAE VDI environment
Investment per user over 10 years	2,590	2,320	3,780	PAE higher turnover of servers
Desktop Environment				
TOTAL items managed	654	1,690	1,654	Marion screens may be under-reported
Replacement Cost (primary units)	699	650	462	Derived based on units and replacement cost
Devices per user	1.37	1.32	1.13	
Devices per office based user	1.76	1.54	1.30	Driven by two in one roll out – PAE VDI
Laptop to desktop ratio	1:2	1:7	1:10	
Investment per office based user	2,889	1,672	1,132	Driven by two in one roll out and device ratio
Infrastructure availability				
Power Outage %	99.9%	99.9%	100.0%	Derived from outage data – not reliable
Network Outage %	99.4%	99.6%	100.0%	Derived from outage data – not reliable
Server Outage %	100.0%	99.5%	100.0%	Derived from outage data – not reliable
Network Communications				
Number of communication links	14	13	15	
Communication link capacity	101,090	2,650	3,010	Marion own fibre optic network

	Marion	CCS	PAE	Comments
Average link capacity	7,221	204	201	Marion own fibre optic network
Annual Cost Communications 000s	$47	$226	$82	CCS renegotiated rates to $95K in late 1718
Annual cost per user	$145	$417	$137	CCS resolved with renegotiated rates
Disaster Recovery Planning				
DRP Arrangements	✓	✓	✓	There is full replication of each environment at a separate site at each of the councils

10. Risks, Issues and Mitigations

The recommendations amount to a significant amount of change from prior practice for the councils. Through the course of the review a significant number of concerns and risks were raised, most of which have been able to be mitigated or will be through the implementation process or establishment of the ICT governance frameworks.

A number of risks have been mitigated by allowing for additional resource or costs in the evaluation, while others require either actions through the implementation of the recommendations, or they require additional process ongoing.

TABLE 17: Key Risks, Issues and Mitigations

Risk	Mitigation	Status / Treat
Overall Collaboration		
Collaboration not sustained beyond current executive relationships	• Collaboration agreement to be put in place between the Councils	Mitigated
Benefits of collaboration not understood	• Collaboration Communication Plan to be established and implemented • Success stories and demonstration of capability each organisation brings to the table	Underway
Organisational commitment to collaboration	• Gain GM and leadership buy-in to initiatives • Maintain open communication on collaboration	Underway
CCS bears risk as host council	• Councils agree to ensure there is recovery of all costs of the shared in-house team • Monitor cost recovery against team on a monthly basis through shared governance group	Mitigated
Insurance risk	• Insurance Schemes have been contacted and confirmed use of employees across councils is covered from an insurance perspective.	Mitigated
Collaborative Project Delivery (CPD)		
User group don't support initiative	• Ensure executive across all three councils are in explicit agreement regarding the initiative • Ensure there is adequate support for ICT Managers through implementation of the initiative	Mitigated
Support of coordinator	• Each council to provide explicit confirmation of support of coordinator	Mitigated
Loss of support early on due to teething issues	• Gain explicit commitment from 3 council executives to support the initiative • Workshop how will deal with issues when they arise with the governance group (supported by HR) • Support and oversight of sponsor GM in governance meetings	Mitigated
Handing over program risk management to another council	• Joint governance of program delivery by ICT managers • All 3 ICT managers to meet for monthly review of delivery progress, risks and issues each month	Mitigated
Project Demand unable to be met	• Individual councils established separate budgets and resource plans for 1920 program which allowed adequate resourcing • Program Coordinator to undertake resource planning to ensure resources are allocated appropriately	Mitigated
Different investment decision making approaches make it hard to align projects	• Align ICT investment decision principles and processes across all three councils (NOTE: identified as a need at each council on a standalone basis)	Governance

Risk	Mitigation	Status / Treat
Can't gain agreement on system requirements	• Value/fact based approach to determining whether additional requirements are to be included in system development	Governance
Configuration alignment needs to be maintained	• Implement Change Advisory Board to support ongoing alignment for CPD systems (will build over time)	Governance
Employee Conditions Changing	• People and change assessment of impact on staff • Recruit new roles with cross council impact	Implementation plan
Employees needing to travel further	• Minimise where possible with technology • People and change assessment of impact on staff	Implementation plan
Recommendations based on current skills and experience of ICT managers	• Succession planning to be put in place • Role descriptions to be updated to reflect	Implementation plan
Costs increase	• Appropriate business case / assessment for each collaboration project to ensure this won't be the case	Governance
Procurement implications	• Resources are shared in-house resources managed through a collaboration agreement, charged at cost and managed through a shared governance group	Mitigated
Equity in value	• Charging has been factored into individual impacts for each councils (with some upside potential)	Mitigated
Equity in value	• Overall recommendations of review have been modelled by council – all NPV positive	Mitigated
Gets too hard	• Model needs to be designed to ensure it sticks • Implement collaboration agreement • Processes need to be designed to make it easy for people	Partially mitigated
People find a way around the system	• Explicit support from the executive groups • Clear escalation path and explicit support from the CEOs • Clarity on roles and responsibilities in relation to ICT systems	Mitigated Governance
Disempowers individual organisations	• Align decision making principles	Governance
Disruption	• Adopt low disruption model / scenario	Mitigated
Impedes Agility	• Align application architectures and strategies • Adopt pace layering approach to system planning • Test value of alignment against value of agility	Governance
Policies don't support collaborative procurement	• Align procurement policies in relation to ICT systems	Not mitigated
General Service Review Risks		
Ability to deliver on recommendations	• Agreed responsibility for each recommendation • Agree support required to deliver • Timing to be agreed with ICT Managers	Implementation plan
Benefits realisation	• Implement benefits realisation process • Ensure realisation of outcomes is part of charter of governance group • Quarterly check in on group and realisation against benefits	Governance

Appendix 5 - Overview of Business Systems Fitness Review 2018

What is it?

The 2018 BSFR consisted of a review of CoM core business systems to gain an understanding of current gaps/issues (functional, data integration, reporting, mobility, technical etc.) as well as future business needs to inform decision making strategies for new systems procurement.

How did it come about?

A recommendation of the 2017 review of CoM's existing Asset Management Information Systems was to procure an Asset Management System. It was determined that the selection of a new Asset System(s) should not be performed in isolation, but with an informed holistic view of all supporting systems and integrations. This was the genesis for the BSFR.

What were the objectives?

- Provide an objective and balanced assessment of all core business systems
- Deliver a format suitable for an external consultancy to review and make recommendations that will guide and inform systems strategy recommendations

What was the approach?

The BSFR consisted of 3 main phases:

Phase 1: Distribution of 3 online surveys for business users and the CoM ICT team

Phase 2: 'Closing the Loop' workshop sessions to present and validate the findings

Phase 3: Drafting of the key findings report and supporting documents

What is the connection to CoM's SR?

It was identified in the service review scope to incorporate the BSFR outcomes. There was also commonality in some of the recommendations and the BSFR focused on differing components of the ICT function than the CCSR, considering these together provides a holistic view supporting a clearer vision and plan.

What were the key findings?

only **2** in **5** people assessed the systems as either 'good' or 'excellent'

system inefficiencies resulted in little business capacity to be able to implement change and innovation

Civica Authority was identified as the lowest performing technology platform

there was significant variation in satisfaction levels between departments

operational teams with an outward focus are more content with their systems

Open Office was identified as the best performing technology platform

What were the recommendations?

Recommendation themes

24 system

7 people

14 process

5 data

+

5 recommendations that included all types

Recommendations examples

Perform environment Health Checks with vendors for 3 main platforms
Evaluate potential new systems where existing modules are not meeting current needs
Investigate replacement of current line of business systems

Review the role, composition and resource capacity of the Business Champion Groups
Perform ICT training needs assessment
Enhance Position Descriptions to include ICT knowledge and training requirements

Review departmental operating procedures and process maps for all ICT based systems
Assess and consider adopting Gartner's Pace-Layered Application Strategy
Schedule ongoing and regular review of our vendors and systems

Embed data governance within the organisation
Increase understanding, classification and management of CoM's information assets
Implement data quality checking tools

Engage an independent technology expert to analyse the outcomes of BSFR
Continue to explore opportunities with our collaborative partners
Facilitate a shift in culture to support the delivery of business driven solutions and outcomes

What were the key outcomes/impacts?

clearer understanding of current gaps/issues of CoM core business systems

clearer understanding of future business needs

a report for an external consultancy to review and make recommendations

Appendix 6 - Overview of Information Technology Application Strategy 2019-2024

What is it?

The ITAS 2019-2024 is a plan, and principles to guide the future prioritisation, selection, implementation and renewal of ICT applications at CoM.

How did it come about?

There were several organisational and business drivers which were catalysts for the ITAS one being the BSFR.

What were the objectives?

- Outline the current business capabilities, which appropriate ICT applications and technologies need to support
- Document the key principles that will underpin ICT application strategies and decisions
- Explore relevant ICT industry and LG sector developments and recommend a suitable approach for CoM in its future application development and solution design
- Recommend a high-level plan for ICT application investment
- Provide a strategic context for the evolution of ICT solutions at CoM

What was the approach?

- Reviewed a range of CoM reports and documents
- Referenced Gartner research, and previous learnings, strategies, and solutions of other councils
- Facilitated workshops with CoM working group and broader consultation with Senior Leadership
- Lessons learnt from site visits to three councils
- Reviewed potentially applicable solutions
- Supported by CoM working group and oversight by a reference group

What is the connection to CoM's SR?

The BSFR, ITAS and service review had commonality in some of the recommendations, each also focused on differing components of the ICT function, considering these together provides a holistic view supporting a clearer vision and plan.

What were the key findings?

the level of centralised management and support for the numerous non-enterprise systems is variable. 'Shadow IT'* is commonplace across the organisation

due to a previous lack of investment in IT, it is challenging for the ICT team to meet the strong appetite for change

principles have been outlined in the CoM Digital Transformation Plan, however they are not being applied

ICT team efforts are dominated by 'business as usual' tasks, with limited time for strategic planning

frequency of upgrades to corporate applications varies and tends to be reactive

What were the key recommendations?

adopt a pace-layered application strategy to determine our core Enterprise Resource Planning (ERP) footprint

commit to an appropriate governance model to guide and underpin future ICT application decisions and investment, and sufficient resources to deliver the plan and provide adequate ongoing support

ensure individual business cases are written on business IT initiatives to justify return on investment and consider alternative delivery models

ensure future business initiatives with significant ICT change outcomes uphold the ITAS principles and application architecture

develop an Information Technology Asset Management Plan for CoM (covering IT infrastructure renewal plus the indicative expenditure to deliver the ITAS plan) for adoption by Council, to provide for ongoing investment in ICT assets

What were the key outcomes/impacts?

the ITAS supports the CoM objective of being a leader in embracing and developing new ideas and technology	opportunities for collaboration	a flexible and actionable plan	principles to guide the future prioritisation, selection, implementation and renewal of applications

* IT projects that are managed outside of, and without the knowledge of IT department