

Policy and Sustainability Committee

10.00am, Tuesday 21 March 2023

Internal Audit: Swift System – Application Technology Controls Internal Audit Report

Executive/routine Wards Council Commitments	Executive
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1. For Decision/Action

- 1.1 The Governance, Risk and Best Value Committee has referred the attached report to the Policy and Sustainability Committee for ongoing scrutiny of relevant activity supporting delivery of agreed management actions.

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Referral Report

Internal Audit: Swift System – Application Technology Controls Internal Audit Report

2. Terms of Referral

- 2.1 On 24 January 2023, the Governance, Risk and Best Value Committee considered an internal audit report on: Swift – Application Technology Controls completed in November 2022 (Appendix 1).
- 2.2 Swift is a social care case management system which the Council has used to support delivery of adult and children’s social care and criminal justice services since 2006. A business case to develop proposals was developed in 2019, however was not progressed.
- 2.3 The internal audit report highlighted that the design and operating effectiveness of the controls in place to manage system security, data quality, and data loss prevention for the Swift system require significant improvement.
- 2.4 The internal audit report recognised that in June 2022, the Council Leadership Team (CLT) considered a briefing report which highlighted a range of key weaknesses for the Swift system including that it is an end-of-life system which is no longer being developed by the supplier. The CLT subsequently agreed to consider proposals to replace the Swift system.
- 2.5 The following agreed management actions are included within the Internal Audit report:
 - 2.5.1 Creation of a Swift System Management Plan, aligned with Council’s Data Strategy, and with the Practice Standards;
 - 2.5.2 Risks associated with the weaknesses of the system will be stated in a risk register, with risk acceptances, mitigating actions, and responsible staff clearly stated;
 - 2.5.3 The Swift System Management Plan will include actions relating to data management and cleansing, and the process to ensure that there is complete and accurate transfer of data to the new system;
 - 2.5.4 The Swift System Management Plan will set out how the other issues noted in the CLT briefing note, and the issues noted in Appendix 1 of the Internal Audit report, will be managed; and

2.5.5 A business case would be developed by the end of January 2023, and that the costs for purchasing a new system will need to be approved as part of the Council's budget setting work for financial year 2023-24. Officers advised that implementation of the new system will include liaison with the Council's projects team, and alignment with the Council's major projects programme.

Progress with delivery of actions

- 2.6 Work is being progressed to refresh the business case and realistic timescales have been set for this. The aim is that an outline case setting out recommended procurement routes and indicative costings will be available for CLT by the end of April 2023 and a full business case by early autumn 2023. The latter to include a recommendation for contract award, a fully costed implementation and resource plan, funding requirements and the business benefits to be targeted. Following the CLT consideration it is anticipated that recommendations will be submitted to the Finance and Resources Committee seeking funding approval and proposing a contract award.
- 2.7 A project is being established to oversee this process including with representatives from Children, Education and Justice Services and Adult and Health alongside Digital Services and Procurement. Importantly this will include an assessment of the business and process changes required to adopt a new system. Consequently, the date for completion of the business plan audit action has been revised to 31 December 2023.
- 2.8 In the meantime, arrangements are being made to strengthen the input and quality control of data for the existing Swift system. This will include delivery of the practice improvement plan for practice which will have two aims, firstly to maximise the functionality of Swift to enable access to and use of better data while a replacement system is developed. The second aspect will include developing a workflow that will transition onto the new system and support accurate data input for the new system. This aspect will also consider data migration and management of historic and closed case information. To allow sufficient time to undertake this work the completion date has been revised from 31 August 2023 to 31 December 2023.
- 2.9 Progress with implementation of management actions agreed in the internal audit report will be monitored by Internal Audit as part of ongoing operational audit tracking processes.
- 2.10 Given the longstanding issues raised within the internal audit report the Governance, Risk and Best Value Committee agreed to refer the report to the Policy and Sustainability Committee, and to request that regular updates on progress with the various workstreams are reported to the Committee.

3. Background Reading/ External References

- 3.1 [Minute of the Governance, Risk and Best Value Committee – 24 January 2023](#)

- 3.2 [Governance, Risk and Best Value Committee – 24 January 2023 Webcast for item 8.2](#)
- 3.3 [Internal Audit Update Report: 1 September to 5 December 2022, GRBV 24 January 2023](#)

4. Appendices

- 4.1 Appendix 1 – Internal Audit Report: Swift Application Technology Controls

Internal Audit Report

Swift Application Technology Controls

30 November 2022

CW2202

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This Internal Audit review is conducted for the City of Edinburgh Council under the auspices of the 2022/23 internal audit plan approved by the Governance, Risk and Best Value Committee in March 2022. The review is designed to help the City of Edinburgh Council assess and refine its internal control environment. It is not designed or intended to be suitable for any other purpose and should not be relied upon for any other purpose. The City of Edinburgh Council accepts no responsibility for any such reliance and disclaims all liability in relation thereto.

The internal audit work and reporting has been performed in line with the requirements of the Public Sector Internal Audit Standards (PSIAS) and as a result is not designed or intended to comply with any other auditing standards.

Although there are specific recommendations included in this report to strengthen internal control, it is management’s responsibility to design, implement and maintain an effective control framework, and for the prevention and detection of irregularities and fraud. This is an essential part of the efficient management of the City of Edinburgh Council. Communication of the issues and weaknesses arising from this audit does not absolve management of this responsibility. High and Critical risk findings will be raised with senior management and elected members as appropriate.

Executive Summary

Overall
Assessment

Significant
improvement
required

Overall opinion and summary of findings

The design and operating effectiveness of the controls in place to manage system security, data quality, and data loss prevention for the Swift system require significant improvement.

A briefing note on Swift provided to the Corporate Leadership Team (CLT) in June 2022 noted the following key areas of weakness:

- Swift is an end-of-life system which is no longer being developed by the supplier
- training materials are not comprehensive and, in particular, do not cover the basics of data capture
- induction training is provided locally and not centrally, and may therefore be inadequate
- procedure documents are not comprehensive and, specifically, do not fully cover data entry and recording
- data quality has diminished due to a reduction in assurance reviews
- reports produced by the system are not trusted by managers due to poor data quality
- data is not deleted from the system in a timely manner, meaning that data protection standards are not being adhered to
- the system is difficult to use because it is not intuitive, slow, and has performance issues
- the system does not allow for effective reporting to other organisations, e.g. the Scottish Government.

The findings of our review are largely aligned with the issues highlighted in the CLT paper, and we have summarised them at [Appendix 1](#).

A result we have raised one High-rated finding, which has two recommendations: a business case should be created to evaluate the options for replacing the system, and an interim plan should be put in place to manage system risks prior to the implementation of a new system.

Areas of good practice

Our review identified:

- there are robust controls surrounding adding new users, changing user access, and removing leavers access for Council staff. This includes a reconciliation to the Council's leavers lists which are circulated by Business Intelligence.

Background and Scope

Swift is a social care case management system provided by OLM Systems, which the Council has used to support delivery of adult and children's social care and criminal justice services since 2006.

The Council's ICT service provider CGI manages the relationship with OLM systems for the Council. The Swift system is 'end of life', and the Council has limited control over the future of Swift and its use within the organisation.

Due to the age of the Swift system and lack of support and development, the Swift system has a number of functional weaknesses (as noted in the June 2022 CLT paper) which we understand would require replacing the system to ensure that the various services who rely on Swift have a modern solution that will fit their needs.

A Business Case to replace the Swift system was presented to the Council's Corporate Leadership Team (CLT) in October 2019; however despite significant time invested by staff, and engagement with external consultants, the request to invest up to a total of £5.674m over a 2-year implementation period in 2020/21 and 2021/22, was not approved.

The Scottish Government have agreed plans to move to a 'National Care Service' model of health and social care by 2026. This, coupled with increasing demands for services and increased budgetary pressures means the appetite for capital investment in this area is uncertain.

Scope

The objective of this review was to assess the adequacy of the design and operating effectiveness of the key Swift technology controls established to manage system security; data quality; and data loss prevention, and the processes and controls applied by services to ensure that personal sensitive records maintained on the Council's network are appropriately protected.

Risks

- Strategic delivery
- Financial and budget management
- Health and safety
- Supplier, contractor, and partnership management
- Technology and information
- Governance and decision making
- Regulatory and legislative compliance.

Limitations of Scope

The scope of our review was limited to understanding the assurance that the Council receives from third parties (CGI and OLM) in relation to relevant system and supplier management controls, with no direct engagement with these third parties.

Reporting Date

Testing was undertaken across the period April 2021 to March 2022.

Our audit work concluded on 17 October 2022, and our findings and opinion are based on the conclusion of our work as at that date.

Findings and Management Action Plan

Finding 1 – Swift Strategy

Finding Rating	High Priority
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In June 2022 a briefing note was presented to the Corporate Leadership Team (CLT) highlighting the significant risks the Council is exposed to by the Swift application, including data quality and compliance with data protection legislation, system usability, and reporting functionality. The briefing note recommended that:

- a Swift/AIS data quality recovery plan was agreed to
- CLT considered the future role of Swift/AIS and plan for its replacement.

The briefing note to CLT stated that the work to improve data quality would take approximately 12 months to complete and would involve significant staff time. However, our review notes that a data quality recovery plan has not yet been created.

Management have advised that the purchase of a new system has recently been agreed in principle. However, given that it has been three years since the last business case was developed, costs and options will likely need to be updated.

The risks associated with the use of the current system have been recorded in both the CLT and Health and Social Care Partnership’s risk registers, stating that the system is end-of-life and has maintenance issues.

The findings of our audit were largely aligned with the issues highlighted in the CLT briefing note, and we have summarised these findings at [Appendix 1](#).

Risks

- **Strategic Delivery** – Council objectives may not be achieved
- **Financial and Budget Management** – best value may not be achieved
- **Health and Safety** – increased risk of unreliable data, and increased staff stress
- **Supplier, Contractor, and Partnership Management** – roles and responsibilities, timescales, and services provided are not defined
- **Technology and Information** – inefficient use of data and technology
- **Governance and Decision Making** - inability to make appropriate decisions
- **Regulatory and Legislative Compliance** – non-compliance with relevant data protection legislation.

Recommendations and Management Action Plan: Swift Strategy

Ref.	Recommendation	Agreed Action	Action Owner	Contributors	Timeframe
1.1	A system management plan should be created and approved by CLT, which aligns with the Council’s Data Strategy, and which will be used to manage Swift risks in the interim during the move to	1. a system management plan will be created, aligned with Council’s Data Strategy, and with the Practice Standards	Amanda Hatton, Executive Director of Education and Children’s Services	Rose Howley, Children’s Services Senior Manager Carey Fuller, Head of Criminal Justice	31 August 2023

	<p>the new system. Specifically, these risks should be noted in a risk register, with any risk acceptances, mitigating actions, and responsible staff clearly stated.</p> <p>The plan should include actions relating to data management and cleansing, and the process to ensure that there is complete and accurate transfer of data to the new system.</p> <p>In addition, the plan should set out how the other issues noted in the CLT briefing note, and the issues noted in Appendix 1 of this report, will be managed.</p>	<ol style="list-style-type: none"> 2. risks will be stated in a risk register, with risk acceptances, mitigating actions, and responsible staff clearly stated 3. the plan will include actions relating to data management and cleansing, and the process to ensure that there is complete and accurate transfer of data to the new system 4. in addition, the plan will set out how the other issues noted in the CLT briefing note, and the issues noted in Appendix 1 of this report, will be managed. 	<p>Judith Proctor, Chief Officer, Edinburgh Health and Social Care Partnership</p>	<p>Jon Ferrer, Senior Manager Quality, Governance, and Regulation</p> <p>Andrew McWhirter, Acting Senior Manager Children's Practice Teams</p> <p>Anna Duff, Interim North- West Locality Manager</p> <p>Nikki Conway, South- East Locality Manager</p> <p>Deborah Mackle, South- West Locality Manager</p> <p>Angela Lindsay, North- East Locality Manager</p>	
1.2	<p>A refreshed business case for the replacement of the current Swift system should be prepared and then approved by CLT. It should give consideration to the scale of resources required to implement the new system, involve liaison with the Council's projects team, and should be aligned with the Council's major projects programme.</p>	<p>A business case is currently being created, with the aim to have it completed by January 2023. The costs for purchasing a new system will need to be approved as part of the Council's budget setting work for financial year 2023-24.</p> <p>With regard to implementation of the new system, there will be liaison with the Council's projects team, and alignment with the Council's major projects programme.</p>	<p>Amanda Hatton, Executive Director of Education and Children's Services</p> <p>Judith Proctor, Chief Officer, Edinburgh Health and Social Care Partnership</p> <p>Richard Carr, Interim Executive Director of Corporate Services</p>	<p>Richard Williams, Programme Director</p> <p>Nicola Harvey, Service Director, Customer and Digital Services</p> <p>Anna Duff, Interim North- West Locality Manager</p> <p>Nikki Conway, South- East Locality Manager</p> <p>Deborah Mackle, South- West Locality Manager</p> <p>Angela Lindsay, North- East Locality Manager</p>	28 February 2023

Appendix 1 – Summary of Findings

Audit Area	Control Objectives	Audit Findings
System strategies	1. System owners have a clear understanding of the lifetime of the systems and supplier timeframes for providing ongoing support.	Our review identified that the Swift system is no longer being developed by the supplier and is therefore 'end of life'.
	2. Clear strategies are in place to support replacement of the systems before they are no longer supported by the suppliers.	Previous proposals to replace Swift have not been approved. The last Business Case was prepared in 2019 and is therefore outdated. It is estimated that replacing the system will take 4 years including recovering Swift data to an acceptable level and fully completing a replacement project.
System Data Quality Controls	1. Data quality controls are included within the Swift system that include (but are not limited to): <ul style="list-style-type: none"> • specified data and value input formats (e.g., dd/mm/yyyy or £0,000.00) • limited numbers of 'free text' fields • inability to leave certain fields blank • data validation checks (e.g., is less than 0 or greater than 100 years old). 	While validation controls exist on Swift, the extent of these is not known, and therefore we cannot confirm that the needs of the Council are being met. Furthermore, the Council has limited control to implement new controls given the lack of development on the system identified above.
	2. There are established data quality checking procedures that include the requirement to perform regular checks on the quality of system, including use of system exception reports (where available).	Data quality checking procedures have been designed by Business Support, though they are not tasked with inputting the data. The quality of data in the Swift system varies across services, but has deteriorated in general in recent years, making the task of quality improvement a challenge. Management highlighted that data quality work is often side-lined due to competing priorities, difficulties navigating and using the system, and there are no central checks performed to confirm that data quality work is effective and has been completed.
	3. Data quality checking procedures are consistently applied.	
	4. There is an effective process in place for the creation and adjustment of system generated reports.	While our review found that there was a robust process in place for the creation and adjustment of system generated reports, some Swift-specific reports (such as Mail Merge and Oracle integration) are more complex in nature and there is a potential key-person dependency around the ongoing

		functionality of these elements of the system. Management have advised that, due to the lack of effective reporting functionality, there is difficulty in tracking drift and delay in case work, and that there is the requirement to develop a more effective performance culture.
	5. Process and procedure notes supporting the ongoing use of the systems been prepared and are available to all system users.	Our review identified 118 policy, procedure, and guidance documents on the Orb relating to the use of Swift. We found that most of these documents were either no longer available or had not been subject to review for up to 9 years. Discussions with officers confirmed that Swift processes have been localised, and therefore the extent of guidance documents and processes is not known. This might suggest that the approach to Swift is inconsistent across teams and directorates. Management have advised that a team was in place which provided centralised training to staff, and which maintained policies and procedures, but that the team was disbanded in 2016.
Information governance and system security	1. There are records management procedures in place which outline the requirements for holding, archiving, and deleting data, and which have been approved by IGU and comply with the Council's data protection standards.	As highlighted above, records management procedures are localised and therefore we could not confirm that procedures have been designed appropriately or that they are operating effectively. We noted that the Swift system has limited functionality in relation to archiving and deleting data. As a result, the Council is non-compliant with elements of GDPR legislation and its own data protection standards.
	2. Records management procedures are consistently applied.	
	3. Access to personal sensitive data held on Council network drives is appropriately restricted and regularly reviewed.	Although the Swift system has document retention functionality, the Council did not elect to procure this. As a result, documents which are supplementary to Swift case records are stored on individual network drives. Officers noted that user access for such folders is not aligned with Swift user access privileges, and in some instances, there are no processes to periodically review user access rights to confirm access to sensitive data is restricted.
	4. Controls have been established to prevent unauthorised data extraction and transfer.	Swift has controls in place to prevent the unauthorised extraction and transfer of data through its user security functionality. In addition, the Council also relies on confidentiality agreements and the Councils ICT Acceptable Use Policy.

	5. There are controls in place to manage the secure provision of information to third parties.	No data sharing agreements with third parties were provided to Internal Audit, and therefore we were unable to confirm that controls are adequate. Furthermore, user access controls only cover Council employees and, therefore, the Council is reliant on third parties notifying any changes (e.g. leavers), otherwise access will continue until RSA tokens expire (after 3 months).
	6. Known records management weaknesses have been recorded in relevant risk registers and escalated to the Council's Information Governance Unit.	While we noted that the risks associated with Swift have been discussed and added to some risk registers, we were unable to confirm that all relevant service risk registers detail the issues with the Swift system.
System Access	1. Established system user profiles have been mapped to and are aligned with employee roles and responsibilities to ensure that access to records is appropriately segregated and restricted.	Swift user access rights are not clearly and directly aligned to current operational roles. As a result, it is necessary to copy an existing user's access. This is not considered best practice as any errors will be compounded.
	2. There are controls in place to manage system access rights, including assigning the appropriate user profiles for new starts; allocation and management of RSA tokens for Swift access; employees changing roles; and removing access for leavers.	Our review identified robust controls surrounding adding new users, changing user access, and removing leavers access for Council staff. This includes a reconciliation to the Council's leavers lists which are circulated by Business Intelligence.
	3. Regular reviews are performed to ensure that access rights remain appropriate.	Discussions with officers highlighted that a new process is currently being designed to perform a full review of user access rights on a six-monthly basis. No details of this new process were available and therefore we were unable to test operational effectiveness. As previously highlighted, this task may be made more difficult because user rights are not aligned to operational roles and responsibilities.
Ongoing Supplier Management	1. Council owners have been established for both systems.	No issues were noted regarding the ownership of the system.
	2. An appropriate escalation route has been established to highlight any emergency system issues to the suppliers.	We identified that the relationship with OLM is managed by the Council's ICT supplier CGI, and therefore escalation of emergency system issues, assurance over system security, data protection, and change management

	3. The Council receives appropriate assurance from suppliers in relation to their system security, data protection, and change management controls.	controls, as well as system security issues, is done via the Council's normal ICT procedures.
	4. Any significant system security issues or data protection challenges are communicated to the Council.	

Appendix 2 – Assurance and Priority Definitions

Overall Assurance Ratings	
Effective	The control environment and governance and risk management frameworks have been adequately designed and are operating effectively, providing assurance that risks are being effectively managed, and the Council's objectives should be achieved.
Some improvement required	Whilst some control weaknesses were identified, in the design and / or effectiveness of the control environment and / or governance and risk management frameworks, they provide reasonable assurance that risks are being managed, and the Council's objectives should be achieved.
Significant improvement required	Significant and / or numerous control weaknesses were identified, in the design and / or effectiveness of the control environment and / or governance and risk management frameworks. Consequently, only limited assurance can be provided that risks are being managed and that the Council's objectives should be achieved.
Inadequate	The design and / or operating effectiveness of the control environment and / or governance and risk management frameworks is inadequate, with a number of significant and systemic control weaknesses identified, resulting in substantial risk of operational failure and the strong likelihood that the Council's objectives will not be achieved.

Priority Ratings	
Advisory	A finding that does not have a risk impact but has been raised to highlight areas of inefficiencies or good practice.
Low Priority	An issue that results in a small impact to the achievement of objectives in the area audited.
Medium Priority	An issue that results in a moderate impact to the achievement of objectives in the area audited.
High Priority	An issue that results in a severe impact to the achievement of objectives in the area audited.
Critical Priority	An issue that results in a critical impact to the achievement of objectives in the area audited. The issue needs to be resolved as a matter of urgency.