

Glasgow City Council Internal Audit Section

Committee Summary

Education Services – Hardware Asset Management (iPads)

Item 2(b)

23rd October 2024

1 Introduction

- 1.1 As part of the agreed Internal Audit plan we have carried out an audit of the processes for managing iPads within Education Services (EDS).
- 1.2 The Council has increased the number of iPads used across the EDS estate over the last six years and there were more than 80,000 devices listed on the master list, provided by CGI in February 2024.
- 1.3 Management of school iPads is devolved to schools, with EDS Head Office providing overarching coordination and support between the schools and CGI who provide logistical and technical support. Most devices were funded initially by the Connected Learning project starting in 2018 with any subsequent devices required after the project ended being funded in other ways, such as the New Technologies Fund or by the schools themselves via devolved school budgets.
- 1.4 A relatively high number of iPads which were issued are no longer available to use. This is mainly due to school leavers not handing back their device, or devices being damaged and being beyond economical repair. Some devices have also been reported as lost or stolen. Although the devices can be managed remotely by CGI via the Mobile Device Management (MDM) system (known as Jamf) and the information security risk is relatively low, the devices are desirable and ultimately need to be replaced at a cost to the Council.
- 1.6 The purpose of the audit was to ensure there are sufficient and appropriate controls in place within CGI and EDS for the management of iPads and that these are operating effectively.
- 1.7 The scope of the audit included a review of the following areas:
 - The onboarding process, including the arrangements for ensuring that all new iPads are added to the MDM system prior to being deployed.
 - The processes within EDS for managing the iPads they hold, including the management and notification of changes in ownership and device losses.
 - The accuracy and completeness of the iPad register.
 - Sample testing to and from the asset register.
- 1.8 The audit did not include a review of non-iPad devices, e.g. laptops, desktops, iPhones etc.

2 Audit Opinion

- 2.1 Based on the audit work carried out a limited level of assurance can be placed upon the control environment. The audit has identified scope for improvement in the existing arrangements and three recommendations which management should address.

3 Main Findings

- 3.1 We found that some controls relating to iPad management were in place and operating effectively. CGI and the schools sampled have their own iPad register, assigned staff, procedures and training programmes for managing iPads. EDS have issued a Management Circular to support iPad management in schools as well as offering training courses hosted by well performing schools to give guidance on best practice. Additionally, the stock count work we carried out at CGI, was found to be in order when sampling from stock sheets to physical goods and vice versa.
- 3.2 However, we did identify several areas where controls should be improved in the management of iPads.
- 3.3 We found there are 1,103 iPads which, according to the stock list, have not been allocated a GCC asset tag, meaning they are less likely to be traced back to GCC if lost, in addition to being more attractive to being repurposed if found / stolen outwith GCC. A significant number of these devices were issued during the Covid lockdown in summer/autumn 2020 when devices were being issued at pace in order to respond to home working / teaching demands.
- 3.4 The Jamf stock list shows more than 80,000 iPads available across EDS but more than 10,000 of these appear not to have been used on a Council network for more than a year. This number is spread over all establishments and represents an accumulation over the last six years with a higher proportion occurring in Secondary schools. Education Services believe that many of these devices were moved between schools (e.g. taken by a primary pupil when they moved to secondary) and are actually being used, but they continue to investigate the circumstances.
- 3.5 Using data analytics, we identified that there are significant variances between the number of iPads listed against each school on Jamf and the number recorded on schools' locally managed asset register, with Jamf consistently overstated. This was further confirmed at the five schools visited where, although we were able to locate a sample of five devices from each school's own records of current pupils, we were unable to reconcile the overall device numbers on these local records back to Jamf. Staff interviewed at the sampled schools advised that some devices had not been returned by pupils when they left school.

- 3.6 Whilst there is regular dialogue between EDS and CGI, there is insufficient flow of information regarding devices between schools and CGI. The large volume of devices involved, coupled with CGI's reliance on EDS notifying them timeously when changes occur, makes it difficult to maintain the Jamf system. However, this is the key database that shows overall iPad availability throughout Glasgow and without an accurate record these devices cannot be managed effectively. The iPad management process has evolved since the outset of the Connected Learning project in 2018, with a corresponding evolution of supporting guidance over this time. A management circular was issued in October 2023 informing schools what they should do with information provided by CGI, from Jamf, as part of the "Churn" (an annual pupil snapshot exercise for pupils transferring into or out of a school). The impact of this guidance has not yet been seen as, at the time of our audit, the Jamf information was only obtained once per year by schools and the annual Churn exercise had not yet been carried out.
- 3.7 An action plan is provided at section four outlining our observations, risks and recommendations. We have made three recommendations for improvement. The priority of each recommendation is:

Priority	Definition	Total
High	Key controls absent, not being operated as designed or could be improved. Urgent attention required.	1
Medium	Less critically important controls absent, not being operated as designed or could be improved.	2
Low	Lower level controls absent, not being operated as designed or could be improved.	0
Service Improvement	Opportunities for business improvement and/or efficiencies have been identified.	0

- 3.8 The audit has been undertaken in accordance with the Public Sector Internal Audit Standards.
- 3.9 We would like to thank officers involved in this audit for their cooperation and assistance.
- 3.10 It is recommended that the Head of Audit and Inspection submits a further report to Committee on the implementation of the actions contained in the attached Action Plan.

4 Action Plan

No.	Observation and Risk	Recommendation	Priority	Management Response
Key Control: A complete and accurate corporate register of iPads is maintained.				
1	<p>The Jamf register of devices is inaccurate and therefore may lead to difficulties with device allocation, traceability, resource planning and the ability to apply the freezing of lost / stolen devices.</p> <p>There were 1,103 devices on the Jamf register at the point of examination that had not been allocated a GCC asset tag.</p> <p>Similarly, there were more than 10,000 devices on the Jamf register that appear not to have logged onto the GCC network for more than a year. Education Services believe that many of these devices were moved between schools (e.g. taken by a primary pupil when they moved to secondary) and are actually being used, but they continue to investigate the circumstances.</p> <p>If there is no accurate master stock list there is an increased risk that devices are not managed effectively.</p>	<p>EDS should liaise with CGI and put in place a process to ensure that the Jamf database is properly maintained.</p> <p>Devices that have not logged on the GCC network for a prolonged period of time should be recovered where possible and returned to stock, to minimise the requirement for purchasing additional iPads.</p>	High	<p>Response: Accepted.</p> <p>The Jamf register of devices and update of is an extremely manual process. Education is exploring an automatic sign on process with CGI through a QR code - this will reduce the level of manual interaction required as part of the annual verification exercise. This is similar to the exercise followed within the Council for laptops and desktop verification.</p> <p>Work is also ongoing with school Heads of Establishments to ensure that the devices are returned from school leavers timeously.</p> <p>During COVID there were a number of devices which were released without asset tags. All iPads are now issued with asset tags as well as electronic tags being on the device.</p> <p>Officer Responsible for Implementation:</p>

No.	Observation and Risk	Recommendation	Priority	Management Response
				<p>Head of Resources Heads of Establishment</p> <p>Timescales for Implementation:</p> <p>The annual churn exercise took place over the summer period.</p> <p>Work is ongoing with schools and a social media campaign will take place in October 2024.</p> <p>Timescales for the QR code to be determined.</p> <p>Internal Audit will review position for next follow up report (January 2025).</p>

No.	Observation and Risk	Recommendation	Priority	Management Response
Key Control: An accurate local register of iPads is maintained in order that devices are traceable and managed effectively.				
2	<p>We found that each of the five establishments visited had their own register of devices available to them, but all showed a number of cases in the last four years where pupils had left and not returned devices. The number varied depending on the size/type of school, with large secondary schools having more unaccounted for devices (we found 30 unavailable devices recorded at one secondary school).</p> <p>The stock of devices is therefore overstated as these may not ever be recovered and consequently will not be available for redistribution.</p> <p>If there is no accurate local stock list, resources may not be used effectively and teaching could be interrupted.</p>	<p>EDS Management should define its approach to the recovery and collection of iPad devices, where these have not been returned by school leavers. This should then be communicated and enforced by headteachers across the school estate.</p> <p>Appropriate action should be taken for devices which are not recoverable so that these are accurately reflected in both the local asset register and Jamf.</p>	Medium	<p>Response: Accepted.</p> <p>It is the headteacher's overall responsibility for the management of devices at a local level. Education will strengthen the process to be followed as part of the churn exercise. The churn exercise has taken place, with all secondary schools taking part in the churn exercise for this year. The Jamf report is in the process of being updated on the basis of the information obtained from each school.</p> <p>Automation of the recording through QR code in line with the way CGI manage laptop and desktop asset verification.</p> <p>The number of iPads being returned from leavers has improved due to local initiatives including non-attendance at Proms.</p> <p>As part of the churn exercise iPads were noted to be removed from the system as they were no longer logged against the school. However it was subsequently found that these iPads were at other</p>

No.	Observation and Risk	Recommendation	Priority	Management Response
				<p>schools and had transferred with children as part of the Covid process where iPads went with the child from primary to secondary and the Jamf report was not accurately reflecting the actual location.</p> <p>Officer Responsible for Implementation:</p> <p>Head of Establishment Head of Resources</p> <p>Timescales for Implementation:</p> <p>30 September 2024</p>

No.	Observation and Risk	Recommendation	Priority	Management Response
Key Control: The process for managing iPads is clearly defined, documented and complied with.				
3	<p>A Management Circular (MC43) was issued in 2023 which outlines the key roles and responsibilities and required actions of the various parties involved. However, we found that staff at three of the five schools sampled stated that they were not aware of the management circular. We found examples where the Management Circular and other related guidance was not being complied with, e.g.:</p> <ul style="list-style-type: none"> - As noted above, although schools are required to collect devices from pupils upon leaving, despite the efforts of schools across a number of schemes, this is not always achieved. - Jamf data was not obtained with sufficient regularity from CGI <p>If the requirements of MC43 are not known or complied with there is an increased risk that assets will be lost or stolen and this is not detected.</p>	<p>EDS management should liaise with CGI to confirm the frequency of Jamf reports and put arrangements in place to ensure that this is complied with thereafter. If a change to MC43 or related procedures is required then they should also be updated.</p> <p>EDS management should thereafter reiterate the requirements of MC43 to headteachers, including the requirement to collect devices from school leavers.</p>	Medium	<p>Response: Accepted.</p> <p>Management Circular 43 will be re-circulated to all of our establishments. The development of the QR code will determine how often we are able to run the JAMF report. However, we will consider reverting to getting one JAMF report per term which further strengthens the process for getting return of devices from Christmas leavers.</p> <p>Officer Responsible for Implementation:</p> <p>Head of Resources</p> <p>Timescales for Implementation:</p> <p>QR Code : being assessed with CGI – timescale to be determined.</p> <p>MC43 : 31 October 2024</p>