Internal Audit Report

Education – Ongoing ICT support

7 July 2023

MP2201b

Overall Assessment	Reasonable Assurance

Contents

Executive Summary

Overall opinion and summary of findings

There is a generally sound system of governance, risk management and control in place for managing ongoing Education ICT support across the education estate. The audit recognises that delivery of technology across a large education estate is complex and while the following areas for improvement were identified, Digital Services and CGI have worked collaboratively to seek resolution, where possible:

- development of a RACI matrix to support effective communication and ensure roles and responsibilities in relation to specific areas of support, particularly Microsoft 365, are clearly set out for both technical and for non-technical colleagues
- sharing best practice and developing a standardised process for logging and monitoring ICT issues incidents in schools.

Areas of good practice

- Education colleagues advise there is recognition that a lot of work has undertaken in recent months to improve ICT support
- KPIs are in place for monitoring CGI performance levels and are linked to helpdesk response times and other key areas of service delivery
- detailed monthly performance reports are produced by CGI and reviewed with Digital Service colleagues, with an action tracker maintained
- the Digital Education Team has developed several ways to communicate with, and provide technical support to Education colleagues including incident debriefs, onsite trouble shooting, auto-response emails, information in email signatures, periodic emails to colleagues and via intranet sites
- the Education SharePoint site is regularly updated to provide relevant and useful technical support information to colleagues.

Audit Assessment

Audit Area	Control Design	Control Operation	Findings	Priority Rating
1. Roles and responsibilities	🟠	🟠	Finding 1: Roles and responsibilities – Learning and Teaching Network	Medium Priority
2. Performance monitoring	🟢	🟢	No issues noted	N/A
3. Incident management processes	🟢 (light)	🟠	Finding 2: ICT issue logging in schools and resolution	Medium Priority
4. Delegated administration, asset renewal and replacement	🟠	🟠	See Finding 1: Roles and responsibilities – Learning and Teaching Network	N/A
5. Budgetary responsibilities	🟠	🟠		
6. Communication of updates, resolution, and relevant information	🟢 (light)	🟢 (light)	See Finding 2: ICT issue logging in schools and resolution	N/A

See Appendix 1 for Control Assessment and Assurance Definitions

Internal Audit Report: MP2201b –Education – Ongoing ICT support

Background and scope

The Learning and Teaching network consists of a wired and several wireless networks which support the devices used across all educational establishments. This network is also available to centrally located support and management colleagues. CGI, the Councils technology partner, manages and supports both the wired and wireless networks.

CGI also supports all education end user devices including laptops and desktop computers, and all iPads issued as part of the Empowered Learning Programme. A number of other iPads are supported by the Digital Education Team / schools using Council-managed mobile device management software (JAMF).

Technical support for the software used across Education is provided by a combination of CGI, Digital Education Team, and by schools/vendors directly. Support for the Microsoft 365 environment remains an area to be agreed between CGI and the Council.

Within Education, the Edinburgh Learns Digital team leads the development of digital strategy, teaching, learning and assessment for schools. The team also currently provides supplementary technical advice and support for schools, to augment in-school capacity and central technical support provided by Digital Services and CGI.

A number of issues in relation to ongoing technology and ICT support across the learning and teaching estate have been noted by some education colleagues, these include:

- wired and wireless network login and connectivity issues
- issues with stability of phone systems
- issues with desktops and laptops
- budget implications to purchase and replace assets/peripherals, and
- reliability issues and delays

Digital Services and CGI colleagues have been working to remedy these issues, with several actions taken which include:

- quarterly meetings to review, escalate and resolve issues

- CGI engineers attending schools to confirm device stability and performance
- end user engagement to collate feedback
- re-configuration of anti-virus software and scanning processes
- enhancing Wi-Fi coverage with cabling and WAP installations; and
- WAP installations underway in a further 34 schools

Scope

The objective of this review was to assess the design and operating effectiveness of the key controls established for delivery of ongoing ICT support across the learning and teaching estate.

The review included a review of key documents, including the relevant CGI contract schedules and Output Based Solution (OBS) documents, review of service delivery performance across the learning and teaching estate, review of incident reporting, monitoring and resolution and communication approaches.

The audit also included a survey of a sample of schools to understand processes and issues in individual schools.

Risks

- strategic delivery
- technology and information
- service delivery
- financial and budget management

Reporting Date

Testing was undertaken between 9 January 2022 and 31 March 2023.

Our audit work concluded on 28 April 2023, and our findings and opinion are based on the conclusion of our work as at that date.

Findings and Management Action Plan

Finding 1 – Roles and responsibilities – Learning and Teaching Network

Finding Rating	Medium Priority

CGI roles and responsibilities are set out within contract schedules and a suite of Output Based Solution (OBS) documents. Review of the relevant OBS documents for the audit areas which included OBS 12 Learning and Teaching Services and OBS 40 School Management, notes that whilst they set out the Council's functional requirements and the supplier (CGI) solution, they do not provide comprehensive information on how this will be delivered. Digital Services have advised that the design of the OBS was not intended to provide this level of detail.

It is noted that columns for specific minimum performance criteria within the OBS 12 (Learning and Teaching Services) and Key Performance Indicators (KPIs) column within OBS 23a (Networks LAN) are blank with exception of a few areas. The structure of the OBS documents vary and it is therefore difficult to conclude completeness however a suite of comprehensive KPIs are in place and were found to be adequately monitored by Digital Service colleagues.

A lack of clarity for roles and responsibilities for asset renewal and replacement and budgetary responsibilities for ICT purchases in Schools were also noted amongst some learning and teaching colleagues, linked to issues with replacing and / or upgrading assets which have a higher specification than the standard Council specification.

In 2016, as part of the transition from the BT contract to CGI contract, CLT approved a proposal to consolidate ICT spend across the Council into a single budget. The report stated that where services require amendments to existing ICT and Digital services, or new ICT and Digital services - over and above the specifications captured in the current agreed OBS they would need to work with CGI through the agreed change process on the specification of these new ICT and Digital services, and that any associated costs would need to be budgeted for.

Digital Services and Education colleagues recognise that there have been a number of changes at a senior level within both Corporate Services and Children, Education and Justice Services, and the way in which schools use technology has changed significantly since development of the contract in 2016 and is expected to evolve further throughout the remaining period to 2029, and that a clear framework setting out roles and responsibilities would be beneficial.

Colleagues demonstrate a willingness to work together, however a need to ensure effective communication and consultation to develop solutions which will improve service delivery was noted.

Risks

- **Supplier and Contract Management / Service delivery / Financial and budget management** – lack of clarity on respective roles and responsibilities leading to misunderstanding and disagreement on service delivery and budget requirements.

Recommendations and Management Action Plan: RACI matrix for Learning and Teaching Network

Recommendation 1.1	Agreed Management Action	Action Owner / Lead Officers	Timeframe
A RACI (Responsible, Accountable, Consulted and Informed) matrix which clearly sets out the	**Digital Services** • Digital Services (DS) will identify relevant OBS	**Owners:** Deborah Smart, Executive Director – Corporate Services (Lead Owner)	31/03/2024

Internal Audit Report: MP2201b –Education – Ongoing ICT support

Recommendation 1.1	Agreed Management Action	Action Owner / Lead Officers	Timeframe
roles and responsibilities for CGI, Digital Services and Education colleagues aligned to the relevant OBS should be developed to ensure there is clarity on who is responsible, accountable, should be consulted and informed on the various elements relevant to the ongoing ICT support for the Learning and Teaching network, this should include but not be limited to, Office 365, technical support issues including wireless networks, telephony, asset renewal and replacement, and SEEMiS, as well as delegated ICT administration, and budgetary responsibilities for ICT purchases in schools. The RACI should be developed and agreed with representatives from Education colleagues, Digital Services, including the Digital Education Team, CGI, finance, communications, and ICT support colleagues in schools. Once developed, the RACI and any supporting information should be communicated effectively to relevant stakeholders to ensure awareness.	• DS will create RACI template in collaboration with Education colleagues ensuring inclusion of relevant areas not limited to those noted in recommendation • DS will meet with CGI to agree RACI against identified areas • DS will coordinate workshop with Education financial representatives to agree RACI against budgetary responsibilities • DS will coordinate workshop with Education representatives to record RACI against remaining identified areas **Education** Education agree there is a need to ensure that an appropriate model of technical support in schools. Senior management from Digital Services and Education will initiate a review which includes those who deliver technical support including the Digital Education Team, Edinburgh Learns Digital and IT Technicians in schools is required, to ensure there is clarity on roles, remits, and responsibilities, which will include leadership of, and supporting professional learning the IT Technician Service.	Amanda Hatton, Executive Director – Children, Education and Justice Services **Lead Officers:** Nicola Harvey, Service Director Customer and Digital Services Lorna French, Service Director, and Chief Education Officer Heather Robb, Chief Digital Officer Jackie Galloway, Senior Manager Commercial Richard Burgess, Digital Services Relations and Services Manager Alison Roarty, Digital Services Commercial & Risk Lead Louise Sibbald Digital Education Team Manager, Digital Services David McKee, Quality Improvement Education Officer Gillian Tracey, Operations Manager Jackie Reid, Quality Improvement Manager	

Finding 2 – Accessing ICT support and reporting issues in schools

Our survey of a sample of schools found that there are different ways of logging ICT issues in place across the school estate. In some schools individual colleagues raise a ticket with the CGI Helpdesk, while other schools use a single point of contact or an ICT technician to raise issues with CGI.

Issues during colleague absence, where a single point of contact raises issues, and delays due to teaching colleagues being unable to respond during lessons were also highlighted.

Issues with resolution were noted with some colleagues advising that incidents can be passed around CGI colleagues, and the initial person raising the issue sometimes experiences difficulties to track down a contact who is able to provide a full update of the resolution.

The Council's ICT portal does provide functionality to track incident updates by the user who logged the support ticket, there is also a virtual assistant 'Amelia' which can provide real time support.

In November 2022, Digital Services developed an information pack which provided comprehensive update on the digital learning estate and progress being made to resolve wider issues. This included a detailed section on Accessing Support/Reporting Issues which outlined key support routes for issues including CGI helpdesk, printers, WI-FI access, and support for moving equipment.

Education colleagues advised that colleagues who utilise the proper routes to accessing technical support were more successful in finding a resolution, and that there was room to improve this to support consistency across schools.

Risks

- **Service Delivery –** inconsistencies in accessing support and reporting issues may lead to interruptions and reduced teaching time. Additionally, Digital Services/CGI may not be aware of the full extent of issues affecting the school estate.

Recommendations and Management Action Plan: Sharing best practice - accessing support and reporting issues

Recommendations		Agreed Management Action	Action Owner / Lead Officers	Timeframe
2.1	Education colleagues should review the technical support information provided by Digital Services colleagues and consider ways to share and disseminate best practice for accessing technical support and reporting issues across schools. This could include implementing a standardised process for logging ICT issues within schools to provide consistency in the approach.	- Education will review the technical support information provided by Digital Services to ensure it is clear and comprehensive, and that it meets the needs of all schools, providing suggestions for improvements if necessary. - Education will promote greater use and understanding of agreed processes for accessing technical support and reporting issues, with key staff in all schools. - Education will discuss and consider greater standardisation of the process for logging ICT	**Owner:** Amanda Hatton, Executive Director – Children, Education and Justice Services **Lead Officers:** Lorna French, Service Director, and Chief Education Officer David McKee, Quality Improvement Education Officer Gillian Tracey, Operations Manager	31/03/2024

Recommendations		Agreed Management Action	Action Owner / Lead Officers	Timeframe
		issues by schools, with key digital representatives from schools.	Jackie Reid, Quality Improvement Manager	
2.2	Digital Services should work with the CGI Service Desk should consider ways to support Education colleagues more effectively, this could include implementing training to ensure they identify support requests from Education colleagues who may have limited time and availability due to face to face teaching and identifying ways to resolve the issues which are appropriate to working within a school environment.	• Digital Services will liaise with Education colleagues to understand their experiences and to consider ways in which the CGI Service Desk could support them more effectively. • CGI staff visits to Edinburgh to gain better understanding of customer base. • Fortnightly ticket review held between CGI Service Team and Digital Education Team to identify and review challenging ticket requests, identify the necessary next steps and document the response. CGI Service Team to then share documented responses with Service Desk staff as guidance notes to inform future requests of that nature. • Amelia is currently being piloted with schools. This should be rolled out to the wider Education Estate following the implementation of any alterations arising from the pilot.	**Owner:** Deborah Smart, Executive Director – Corporate Services **Lead Officers:** Nicola Harvey, Service Director Customer and Digital Services Heather Robb, Chief Digital Officer Jackie Galloway, Senior Manager Commercial Richard Burgess, Digital Services Relations and Services Manager Alison Roarty, Digital Services Commercial & Risk Lead Louise Sibbald Digital Education Team Manager, Digital Services	31/01/2024

Appendix 1 – Control Assessment and Assurance Definitions

Control Assessment Rating		Control Design Adequacy	Control Operation Effectiveness
Well managed	🟢	Well-structured design efficiently achieves fit-for purpose control objectives	Controls consistently applied and operating at optimum level of effectiveness.
Generally Satisfactory	🟢	Sound design achieves control objectives	Controls consistently applied
Some Improvement Opportunity	🟠	Design is generally sound, with some opportunity to introduce control improvements	Conformance generally sound, with some opportunity to enhance level of conformance
Major Improvement Opportunity	🔴	Design is not optimum and may put control objectives at risk	Non-conformance may put control objectives at risk
Control Not Tested	**N/A**	Not applicable for control design assessments	Control not tested, either due to ineffective design or due to design only audit

Overall Assurance Ratings

Substantial Assurance	A sound system of governance, risk management and control exists, with internal controls operating effectively and being consistently applied to support the achievement of objectives in the area audited.
Reasonable Assurance	There is a generally sound system of governance, risk management and control in place. Some issues, non-compliance or scope for improvement were identified which may put at risk the achievement of objectives in the area audited.
Limited Assurance	Significant gaps, weaknesses or non-compliance were identified. Improvement is required to the system of governance, risk management and control to effectively manage risks to the achievement of objectives in the area audited.
No Assurance	Immediate action is required to address fundamental gaps, weaknesses or non-compliance identified. The system of governance, risk management and control is inadequate to effectively manage risks to the achievement of objectives in the area audited.

Finding 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.