

Education, Children & Families Committee

10:00am, Tuesday 31, January 2023

Technology in Education

Executive/routine Wards Council Commitments	Executive All
---	------------------

1. Recommendations

- 1.1 It is recommended that the Committee notes the progress in the performance of technology in Education and the work being undertaken on this as part of the stability plan.

Richard Carr

Interim Executive Director of Corporate Services

Contact: Nicola Harvey, Service Director, Customer and Digital Services,
Customer and Digital Services Division, Corporate Services Directorate

E-mail: Nicola.harvey@edinburgh.gov.uk | Tel: 0131 469 5016

Technology in Education

2. Executive Summary

- 2.1 The purpose of this report is to provide Members with an update on the steps taken to resolve performance issues experienced across the Learning and Teaching IT estate and of the ongoing programmes of work to enhance and stabilise the technology offering in educational settings.

3. Background

- 3.1 In September 2022, issues relating to performance across the Council's Learning and Teaching network were raised.
- 3.2 CGI's slow response to resolving these issues, a period where incidents had become more impactful on the Council and a lack of progress with several key priority issues led to an escalation by the Council to CGI's UK and Australia President on the 23rd September.
- 3.3 This report details the issues escalated, the work initiated around them, and the ongoing governance improvements being implemented by CGI.
- 3.4 This report also provides an update on the Empowered Learning Programme and on the rollout of new Multi-Function Devices in Learning and Teaching.

4. Main report

Performance Issues in Learning and Teaching

- 4.1 Following reports of poor performance on laptops and desktops in schools, a Priority One incident was raised to investigate these on 15th September. The effect on devices varied, but there was a common theme of programmes and documents taking unacceptable times to open or timing out before opening.
- 4.2 CGI set up an internal incident team and deployed engineers across several sites to gather diagnostics to assist in investigating the cause and, following the escalation on the 23rd of September to CGI's UK President, highlighted later in this report,

additional resources were added to the investigation from across CGI's UK operation.

- 4.3 The investigation uncovered two underlying causes for the performance issues the combined effect of which resulted in full use of a device's processing power. The first was a scan for a vulnerability across the estate which, rather than be a one-off as intended, was replicating, and running continuously. The second, similarly, was in relation to our Anti-Virus software where full scans were running continuously.
- 4.4 Once both had been resolved a significant improvement in performance was noted. Testing was carried out in a number of schools before we rolled out across the estate and, at the beginning of November, we communicated to schools that the incident had been resolved.
- 4.5 Throughout the period of the incident, we held regular calls with CGI to discuss progress and to ensure that adequate resources were in place both from CGI and CEC to assist in resolving this. Digital Services also attended a number of meetings with Head Teachers and Teaching Unions to advise of the work underway to resolve.
- 4.6 Communication has also gone to all schools on how to raise calls when issues arise, stressing the importance of raising issues as soon as possible to help us identify any widespread issues.
- 4.7 Over December, CGI and Digital Services colleagues visited or contacted 16 secondary schools to ensure that the performance issues had been resolved and that they were now happy with the performance of technology in their schools. The response from all 16 was positive.

Device Performance

- 4.8 Learning and Teaching desktops and laptops have all been refreshed within the last four years. During that period of time, changes in the way we use technology and the applications used have changed considerably. Many schools have found benefit in the performance of devices which have had additional RAM installed. Details of how to order this have been distributed to schools.
- 4.9 Schools have also been advised of the importance of regularly shutting down and restarting devices. Performing a restart allows devices to resolve minor issues and acquire updates or fixes. Regular restarts allow users to leverage the benefit of updates and fixes made available to support optimised device performance. Advice on how to do this has also been circulated.

Stability Plan

- 4.10 In September 2022, issues relating to performance across the Council's Learning and Teaching network were raised.
- 4.11 CGI's slow response to resolving these issues coupled with a period where incidents had become more impactful on the Council and a lack of progress with

several key priorities led to an escalation by the Council to CGI's UK and Australia President on the 23rd September.

- 4.12 As well as successful resolution of the performance issues in Learning and Teaching, the Council asked CGI to provide additional resourcing and focus on a key set of ongoing issues:
- Council Corporate Wi-Fi connectivity
 - Procurement of Wireless Access Points to support Empowered Learning
 - Resolution of Public Wi-Fi Access in our buildings
 - Certificate Issues
 - Improvement in the operational change process
 - Greater engagement with users to make sure that things are working and not simply rely on calls.
- 4.13 As part of the response to the Council, and to lead on the work of a stability plan, CGI have appointed Faris Mohammed, the CGI Chief Operating Officer for UK and Australia, to temporarily align himself with the account and provide senior CGI oversight and support to drive this forward. This action was taken by CGI as a result of a direct request by the Council to have an Executive sponsor to scrutinise and resolve CGI operational issues.
- 4.14 The Council meet with CGI twice weekly to review progress on the stability plan and Digital Services will continue to review the performance of all aspects of CGI delivery, escalating issues as appropriate.
- 4.15 As part of the engagement with users in Learning and Teaching, CGI will visit a number of schools in January to check that on performance, test connectivity and do a range of diagnostics on devices. This will be in addition to the normal visits for incidents and requests. There were 455 visits for these across schools in September-November 2022.

Empowered Learning

- 4.16 Work began in April 2021 on the delivery of the Empowered Learning solution which will provide every pupil from P6 to S6 with a device and access to devices for all P1 to P5 pupils as well as augmentation of our existing wireless network in schools. This programme has now also been expanded to include Early Years.
- 4.17 The work is being carried out in partnership with CGI.
- 4.18 Benefits of this programme include:
- Equity of access from P6 to S6, ensuring all pupils have personal access to digital learning with their teacher in school or at home
 - Over 41,000 devices distributed across the city
 - Effective digital workflow to increase engagement, improve teacher feedback and raise attainment

- A range of powerful accessibility features to improve access to the curriculum for pupils with additional support needs
- Learners can work online simultaneously in a class or collaboratively outside the classroom
- High quality digital applications for productivity and creativity, providing increased personalisation and choice
- Development of learning, thinking and digital literacy skills vital for success in today's rapidly evolving, technological society.

4.19 The solution is now in the final stages of delivery with all one-to-one devices distributed. This solution has also expanded to include a device for all P6-S6 Ukrainian pupils enrolled in an Edinburgh school.

4.20 The final elements of this programme - rollout of shared iPads, installation of the remaining Wireless Access Points and the rollout of the AV solution will be completed over January/February 2023.

4.21 As part of the 2022/23 Audit Plan, a planned audit of Empowered Learning will take place in the first quarter of 2023. This audit will also review aspects of service delivery related to the stability plan and the overall performance of technology in schools.

Printing in Learning and Teaching

4.22 Following successful trials of the new Apogee printers and multi-functional devices (MFDs) in December 2021, the City of Edinburgh Council launched a programme in January 2022 to replace print devices across both the Corporate and Learning and Teaching estates. This rollout covered approximately 350 sites within Edinburgh and two outdoor education centres. The new print and MFD devices offer a range of benefits, including easy printing, the cost to print, better analysis and reporting tools, improved security features and more efficient ways to order various print products.

The roll-out of the new Multi-Functional Devices started on the 10 January 2022 and concluded for the Corporate and Learning and Teaching Estates on 1 April 2022. The exceptions to this roll out were People's Network Devices (Libraries) and non-networked sites, including remote Council sites Benmore and Lagganlia outdoor education centres both of which are nearing completion.

4.23 As a project, the Learning and Teaching estate installation was prioritised first, with the exception of several key corporate sites including Waverley Court, City Chambers and Locality Offices also installed early in the roll-out. Apogee managed the roll-out seamlessly, removing old Xerox devices and swapping them over with new HP devices.

4.24 The Learning and Teaching estate remains unchanged with devices replaced on a one-to-one basis. The corporate estate was reduced by over 120 devices, most

notably Waverley Court where the number of devices was reduced from 54 down to 10 and the City Chambers from 55 to 20, with no adverse effects.

- 4.25 Once the print solution had been installed, some early performance issues were encountered across Learning and Teaching, particularly around the exam period in late April/May when there is heavy reliance on the printing solution. The response from Apogee was excellent and they worked tirelessly to get to the root of the problem and provide a resolution, supported by CGI.
- 4.26 Prior to the Summer break in 2022, print volumes were almost at pre-covid volumes in the Learning and Teaching estate, although there has been a large reduction in volumes across the corporate estate. Although the volumes in schools are still high, at around one million copies per week, the trend is now showing a reduction in print since the schools resumed in August 2022, and now printing less than pre-covid figures.
- 4.27 With the project nearing completion and transitioned to business as usual, performance across the full Council estate points towards an efficient print solution with users now fully utilising the Apogee portal and providing vital MI for future initiatives.

YouTube

- 4.28 YouTube access was suspended on 11th October 2022 at the request of Education colleagues after a safeguarding risk was highlighted following parental complaints.
- 4.29 YouTube access for teachers was restored on 13th October 2022 for teachers on Empowered Learning iPads and, after the October break, also on CGI managed laptops and desktops.
- 4.30 The CGI and CEC teams continued to work on a safe and age-appropriate solution for pupils. Following positive feedback from small groups of user testers on 8th November 2022, the rollout began at Wester Hailes High School (WHHS) on the 9th November 2022. CGI support staff were deployed to the school to actively monitor and ensure a smooth rollout.
- 4.31 Following a positive experience at WHHS, the rollout moved to James Gillespie's High School, Clovenstone Primary School, and Woodlands Special School on the 10th November 2022. CGI support staff were again deployed to these locations to further monitor.
- 4.32 Following positive experiences at these locations, the configuration was made available to all year groups and all devices with one-to-one Empowered Learning iPads on the evening of the 10th November 2022 and communicated to all schools.

5. Next Steps

- 5.1 The Council continues to monitor all aspects of technology delivery by CGI.
- 5.2 The Council continues to meet with CGI twice weekly to ensure that the stability plan is progressed.

6. Financial impact

- 6.1 There are no financial impacts within this report.

7. Stakeholder/Community Impact

- 7.1 The Council's Digital Services Team actively monitors all activity on the CGI account, identifying any trends which need to be investigated.
- 7.2 The Council's Digital Services team meet regularly with a range of stakeholders from Learning and Teaching including Union representatives. There are established formal and informal communication channels which are used to highlight issues and to gain insight to assist with the use of technology in the classroom.

8. Background reading/external references

- 8.1 [Empowered Learning](#)

9. Appendices
