



Mayor and Cabinet

Report title: Response on CYP ICT Provision

Date: 16 September 2020

Key decision: No.

Class: Part 1

Ward(s) affected: All

Contributors: Director of IT and Digital Services; Managing Director of the Shared ICT Service, Head of Shared Service Operations, SGM Business Systems, Interim Head of Applications

Outline and recommendations

This report is in response to a referral from the CYP Select Committee requesting that Mayor and Cabinet take action to address member's concerns on the stability of ICT Services supporting those services overseen by the committee, and in particular issues which were observed during the 2019 Ofsted inspection.

This report outlines the measures taken to date to return the service to a position of stability, in line with performance levels stipulated within the Shared Service Inter Authority agreement, which also form the basis for retained IT services within the London Borough of Lewisham.

Mayor and Cabinet are recommended to note the content of the report and agree that it be submitted to the CYP Select Committee.

Timeline of engagement and decision-making

- **CYP Select Committee 23 January 2020:** Resolved that referral be made to Mayor and Cabinet.
- **Mayor and Cabinet 5 February 2020:** Considered referral and requested Officer response.
- Officers have been delayed in providing a response to the referral due to the demands placed on the council COVID 19 crisis, and this report is being presented at the first possible opportunity to coincide with the recommencement of individual overview and scrutiny committees.

1. Summary

- 1.1. In response to a referral from the CYP Overview and Scrutiny committee requesting that Mayor and Cabinet address issues of IT stability, this report focuses on three key applications used by the Children and Young People Directorate and also general issues of IT stability.
- 1.2. There have been configuration issues which have particularly impacted the systems used by Childrens Social Care, but these are in the process of being remediated and they have no impact on the stability of systems
- 1.3. There was a specific software bug which impacted the social care case management system during the Ofsted inspection in 2019. This was resolved by the supplier in October 2019 and there has been no reoccurrence of the problem, however the incident was referenced in the Ofsted report.
- 1.4. There were a series of core infrastructure failures between April and September 2019. These have all been remediated and the availability of the infrastructure has improved since then.
- 1.5. There is an ongoing programme of IT improvements, and SICTS are preparing investment plans and a new operating model to improve the level of service that they provide (subject to funding being approved).
- 1.6. However the technology services involved are currently meeting their stability targets through the primary measure of service availability.

2. Recommendations

- 2.1. Mayor and Cabinet are recommended to note the findings of this report and agree that it be submitted to the CYP Select Committee.

3. Policy Context

- 3.1. The Council's corporate strategy sets a priority to give children and young people the best start in life
- 3.2. From 2018 all Local Authority Children's Services in England and Wales are subject to a new inspection framework by the Ofsted regulatory body. i.e. Inspecting Local Authority Children's Services (ILACS). Details of the framework can be found here:

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4. Background

- 4.1. In 2019, the Ofsted report into Children's Social Care rated the council as "requiring improvement" across all areas covered by their inspection.
- 4.2. Amongst the 49 individual findings in their report their report was the observation that:
 - 4.2.1. **"Despite some improvements, the electronic recording system is subject to frequent system failures, which impact on the ability of staff to record effectively and to complete their tasks in a timely way. This means that records may not be up to date, recording takes a disproportionate amount of time, and performance information may be inaccurate."**
- 4.3. Whilst technology was not called out as a primary issue in the report, it was implicated in one of the main recommendations for improvement:
 - 4.3.1. **"The quality of recording, supported by a stable and reliable electronic case recording system."**
- 4.4. As part of the council's response to the report, Childrens Social Care (CSC) have identified **"Stable ICT to support practice, performance & financial management"** as a priority action and this was presented in a report to CYP Overview and Scrutiny in January 2019.
- 4.5. Upon reviewing the CSC report, members resolved that a referral be made to Mayor and Cabinet as follows:
 - 4.5.1. ICT problems have been a recurring issue at CYP Select Committee, affecting service delivery. The Committee has heard on numerous occasions through the course of this municipal year that problems with the ICT affects Children's Social Care, as well as other services that the Committee scrutinises.
 - 4.5.2. The Children and Young People's Select Committee recommends that the Mayor and Cabinet takes urgent action to address the recurring problems with the corporate ICT.
- 4.6. Officers have been delayed in providing a response to the referral due to the demands placed on the council COVID 19 crisis, and this report is being presented at the first possible opportunity to coincide with the recommencement of individual overview and scrutiny committees.

5. Application Issues Impacting CYP

Children's Social Care Case Management (CSCCM)

- 5.1. The council's CSCCM system has been undergoing a process of reconfiguration as part of a service improvement programme in Childrens Social Care. This project has been managed directly by the Policy and Performance team who have engaged directly with third party technology partner.
- 5.2. In July last year a bug in the software caused intermittent excessive use of memory on the server, preventing people from logging on. This was observed by Ofsted during their inspection, although due to fact that the software is deployed over multiple servers only a percentage of users were affected at any one point in time. The supplier resolved the fault in October 2019 and there has been no repeat occurrence of the issue.

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- 5.3. To ensure continuity of service the contracts for both Adults and Children's systems were re-let to under the CCS Framework RM3821 Data and Application Services.
- 5.4. This provided continuance of the services and reflected that improvement work for both systems is underway.
- 5.5. Both contracts commenced on 1st April 2020 until 31st March 2027, with an initial period of 60 months.
- 5.6. The number of incidents and requests relating to the system and logged since January 2019 has shown a steady decline which is a pointer to improving stability:

Quarter (Council Year)	Events Logged
18/19 04	332
19/20 01	225
19/20 02	243
19/20 03	216
19/20 04	239
20/21 01	189
20/21 02 (to 21 August)	98

Finance Management System

- 5.7. There are longstanding configuration issues with the financial management system which integrates with case management system.
- 5.8. In 2019 as a follow on to the case management remediation, a project was initiated to resolve these, and the delivery was awarded to the same company who did the case management remediation work. IT and Digital Services role in this work has been limited to providing programme office support, although this responsibility has now migrated across to the Assistant Chief Executive's service as part of the corporate restructure.
- 5.9. The number of help desk calls logged on the finance management system is relatively minor, with only 154 events being logged since January 2019. Analysis of these suggests a significant number are access related (new users, password resets, etc.)
- 5.10. IT and Digital Service are unaware of any stability issues with this application.

Education Case Management (ECM)

- 5.11. Education use a separate case management system.
- 5.12. The system is supported by Brent Council and specialist resource in CYP and there is no direct support provided by Lewisham IT and Digital Services.
- 5.13. Recently an issue has arisen with the system during the roll out of the new corporate laptops, and it has been identified that the software is not compatible with our method of secure connection to the network. This has delayed the roll out of the laptops to officers in education, but is not in itself a stability issue. A solution using a different means of connecting to the network has been identified by the shared service and this is being deployed as a matter of urgency.
- 5.14. The number of incidents (faults) that Lewisham can see logged against the ECM system since January 2019 is 44, which suggests there are no significant issues

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around the stability of the system.

- 5.15. Through each of these areas – CSCCM, Finance, and ECM - the engagement of IT and Digital Services support has been different, aligned to the improvement work being prioritised. What is common to them all is that IT&DS are aware of the changes being made by the service.
- 5.16. IT&DS are contributing to the improvement plans and as these systems changes become 'business as usual' are part of the ongoing corporate governance arrangements with the service to ensure the systems are operating, maintained, and upgraded through their lifecycle with the Council.
- 5.17. This corporate approach is designed to maximise the performance and value of the system for the service while ensuring the costs, security, and resilience of the technology are appropriate based on IT&DS skills.

6. Infrastructure Issues Impacting CYP

Infrastructure Stability

- 6.1. Through the Inter Authority Agreement which governs the shared service, there is a commitment to deliver a 99% availability level against all critical business systems, and this is the key measure against which we assess stability. It is important to note that a 99% level allows 3 full days of down time per year.
- 6.2. At the end of July, the rolling 12 month average for Childrens social care system was 99.47%, and the target was only missed in July 2019 (97.4%) and October 2019 (98.8%).
- 6.3. For the same period the rolling 12 month average for Education systems was 99.34%, and the target was only missed in August 2019 (95.8%) and October 2019 (97%).
- 6.4. There are no occurrences of availability slipping below the target levels in consecutive months.
- 6.5. Therefore from an availability perspective the infrastructure is delivering in line with expectations.
- 6.6. Another indicator to infrastructure stability is the number of "Priority 1" incidents recorded. These are this incidents that are significant enough to impact an entire critical service.
- 6.7. The number of such incidents recorded across the whole estate, not just the CYP systems, since July 2019 is as follows:

Quarter (Council Year)	Priority 1 Incidents	By Quarter
Jan 19	3	4
Feb 19	1	
Mar 19	0	
Apr 19	7	11
May 19	0	
Jun 19	4	
Jul 19	8	13
Aug 19	3	

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Quarter (Council Year)	Priority 1 Incidents	By Quarter
Sep 19	2	
Oct 19	1	5
Nov 19	2	
Dec 19	2	
Jan 20	9	13
Feb 20	1	
Mar 20	2	
Apr 20	4	7
May 20	0	
Jun 20	3	
Jul 20	1	

- 6.8. The January 2020 figures were exacerbated by supplier based issues and whilst we should not ignore them, they have been reviewed and do not represent any fundamental fragility in the Lewisham controlled infrastructure. The trend in subsequent months has been gradually reducing.
- 6.9. The significant number of incidents in quarters 1 and 2 of 19/20 were largely attributable to issues in our infrastructure and are explored in detail below.

Datacentre/Core Network Issues

- 6.10. During the period of April to October 2019, there were five major outages that involved the core network. To complicate matters, the shared service was in the middle of a core network refresh to greatly enhance the resilience and capabilities of the core network components. Two power supply issues within the secondary data centre (SDC) caused a loss of network connectivity as the core network components in each of our datacentres lost sight of each other. In the first incident on 1/6/2019, the loss of power in the SDC led to a loss of all network traffic routing capability on the core network components in the Brent datacentre, which meant that effectively all services were down. This should not have occurred and was identified as a misconfiguration on the core network. Two remedial actions were taken from this:
- 6.10.1. Firstly, the shared service corrected the misconfiguration in the core network and during the second power supply issue on 14/10/2019 which led to the core components in each datacentre again losing sight of each other, all routing capability was maintained and services running from Brent datacentre - the vast majority of live services - remained available.
- 6.10.2. Second, the power failure, which affected a single phase, caused any single power supply devices fed from that phase to fail. The shared service has added second power supplies to all those devices that can accommodate multiple power supplies. It should be noted however, that some pieces of equipment only support a single supply.
- 6.11. This second incident on 14/10/2019 was traced to a faulty piece of kit in another of the SDC tenant's racks that had caused one of the power supply phases to trip out, which in turn affected any component that only had a single power supply fed from that phase. This did still affect connectivity between the Brent and SDC datacentres, as one of piece of kit that only supports a single power supply was affected. However as already noted previously, the remedial work carried out by the shared service

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greatly lessened the impact of the failure. The faulty piece of equipment has also been replaced.

- 6.12. Also since then, the core network refresh has been completed and greater resilience has been introduced. There are now three active connections between the two datacentres from two different providers. With these and the new configuration, a similar power supply issue affecting a single phase within the SDC should not cause the same outage. The SDC has also carried out investigation and remedial work on its power supply boards to lessen the chance of any re-occurrence. There has not been a similar outage since these works have been carried out.

Storage Failures

- 6.13. During the period of April to July 2019, there were three major outages on the central storage system that affected service availability across the shared service. All three incidents were due to faults on the storage infrastructure itself:
 - 6.13.1. The first incident occurred during a scheduled change in April to update the operating system on the system. A faulty component in one of the controllers caused an unexpected reboot of that controller during the update. This caused the entire system to go down for a brief period. While a reboot was completed quite quickly, and that resolved the problem, the impact on the server and application estate was severe, as access to all storage was lost during the reboots. This caused many applications to fail. Because of the scale of the failures, it took shared service engineers some considerable time to restore all services, as many servers and services had to be restarted. The faulty component has been replaced.
 - 6.13.2. The remaining two incidents were of exactly the same nature. They occurred on 8/6/2019 and 23/7/2019 and both involved the failure of a single disk. The disk failure caused severe latency issues across the rest of the system. This latency affected servers and applications using the storage. However, while the initial disruption was still severe, due to the lessons learned from the first outage, the shared service knew which applications were most likely to be affected and enabled focus and effort to be placed on those and so services were restored in a more timely fashion.
- 6.14. This type of outage had occurred once before as well (although this was considerably earlier in the life of both the system and the shared service). The supplier offered to replace, at no cost, all 96 disks of the same type that had failed. The replacement of those disks has been completed and no failure of the same type has occurred since.

7. General IT Service Improvements

- 7.1. The shared service with Brent and Southwark has been in place for the 4 years and target service levels are governed through an Inter Authority Agreement last updated in October 2017.
- 7.2. The shared service has focused on improving its core and reducing the number of issues that Lewisham experienced, and all SICTS performance levels are currently showing a positive long term direction of travel except for resolution of Priority 3 incidents which are being impacted by a persistent backlog of old calls.
- 7.3. In response to Covid we have introduced a telephony Service Desk to enable staff who need instant support and can't wait for a call back after logging a ticket online. This service was further extended out of hours using a third party so that we are able to offer basic support 24x7x365.
- 7.4. Laptops have been deployed to around 60% of Lewisham officers and this has enabled introduction of MS Teams across the organisation. Teams chat conversations is heavily utilised and we are currently seeing a majority of meetings being held using this technology.

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- 7.5. A Shared IT Service Strategy has been agreed across the partnership and outline key priorities for that shared service these being:
- Building a solid platform
 - Delivering a modern, common infrastructure that partners can rely on
 - Using sustainable technology as best we can given our constraints
 - Delivering a quality Service
 - Providing a reliable, quality user experience
 - Delivering constant improvement by keeping service levels and processes under review
 - Supporting and developing our Shared ICT Service colleagues with the appropriate opportunities
 - Providing Value for Money
 - Ensuring the collective buying position of the partner organisations is used to achieve lower costs whilst quality remains a driver
 - Providing services which are cost comparable to similar providers
 - Forging a lasting partnership
 - Working together and in the best interests of the Service, striving to benefit us all
 - Delivering greater resilience by sharing and mitigating risks
- 7.6. Alongside side the strategy SICTS have continued to develop and work on the Continual Service Improvement Plan which had 87 actions identified to improve the quality and efficiency of the service and we have closed 48 items and have a remaining 39 items to focus on.
- 7.7. Lewisham have suffered from aged infrastructure in the past and significant focus has gone into developing a 5 year technology roadmap, identifying the level of funding over 5 years to bring the council to levels needed to maintain and improve its service levels. This funding is yet to be approved as part of the 2021/22 budget setting process.
- 7.8. In January of 2020 a new Senior Leadership Team was installed to set direction and ensure that Lewisham's needs are catered for. The shared service is due to restructure at the end of 2020 and in the past 3 months has seen discovery, maturity and capacity exercises completed to ensure a well-informed operating model is put forward. This is expected to require additional funding which will need to be agreed across the partnership.
- 7.9. To improve the delivery of technology projects, SICTS have introduced a Project Management Office to ensure better planning and management of project. Alongside side the introduction of the PMO, SICTS have also created a Technical Design Authority to do the cross validation of technical solutions, which not only improves the quality of projects but also facilitates shared learning across the partner boroughs.

8. Financial implications

- 8.1. The cost to Lewisham of participating the shared service during 2019/20 was £4.134m against an agreed performance level of 99% systems availability. This is covered by the IT and Digital Services Budget which for 2020/21 was set at £7.271m.
- 8.2. Further improvements to the shared are proposed but these are not yet costed, and any additional funding will be approved through the council's standard budgeting

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procedures, in line with the council's commitments through the governing Inter Authority Agreement.

9. Legal implications

- 9.1. As noted in the report, Mayor and Cabinet are asked to consider making a response in the terms set out in the report to a referral from the CYP Select Committee requesting that Mayor and Cabinet take action to address member's concerns on the stability of ICT Services supporting those services overseen by the committee, and in particular issues which were observed during the 2019 Ofsted inspection; and to note the content of the report and agree that it be submitted to the CYP Select Committee.
- 9.2. Under the Council's Constitution it is the duty of the Executive when served with a notice to respond to the Select Committee's notice within 2 months (Overview and Scrutiny Rules, paragraph 12b). The Executive considered the notice within that timescale and requested Officer response; that response has been delayed by the exigencies of Coronavirus.
- 9.3. Otherwise, there are no legal implications except as set out within the report.

10. Equalities implications

- 10.1. The Council's Comprehensive Equality Scheme for 2016-20 provides an overarching framework and focus for the Council's work on equalities and helps ensure compliance with the Equality Act 2010.
- 10.2. IT stability is a key enabler for the delivery of services to support equality of opportunity to all children and young people in the borough.

11. Climate change and environmental implications

- 11.1. None

12. Crime and disorder implications

- 12.1. None

13. Health and wellbeing implications

- 13.1. Inefficient IT systems can be a contributing factor to workplace stress.

14. Background papers

- 14.1. Ofsted report August 2019: <https://files.api.ofsted.gov.uk/v1/file/50101634>
- 14.2. Inter Authority Agreement in relation to the provision of a Shared ICT Service (12 Oct 2017)
- 14.3. Shared ICT Service Strategy 2019-22

15. Glossary

- 15.1.

Term	Definition
CYP	Children and Young People

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Term	Definition
ICT	Information and Communications Technology (synonymous with IT)
IT	Information Technology (synonymous with ICT)
PMO	Programme Management Office
SICTS	The Brent, Lewisham and Southwark Shared ICT Service.

16. Report author and contact

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