CITY OF LONDON

CHAMBERLAIN'S DEPARTMENT

LONDON COUNCILS
ICT STRATEGY

FINAL REPORT

INTERNAL AUDIT SECTION

CITY
OF
LONDON

Date Issued: 18 May 2016

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1

CONTENTS

SECTION A : EXECUTIVE SUMMARY

Introduction

This review has been undertaken as part of the 2015-16 Internal Audit plan.

London Councils (LC) is a cross-party organisation, funded and run by London member authorities comprising of 32 London boroughs and the City of London. The Mayor's Office and the London Fire and Emergency Planning Authority are also in membership.

London Councils helps London boroughs improve the services they deliver as well as running a range of services itself, all designed to make life better for Londoners.

In 2011 City of London (CoL) took over the IT support function for London Councils and in 2013 Agilisys supplemented IT service provision as part of the CoL/Agilisys partnership agreement.

An audit review in February 2014 established that an Information and Communications Technology (ICT) strategy needed to be formalised and documented in line with the business requirements, the London Councils ICT strategy was finalised in April 2015.

The objectives of the audit exercise were to establish and evaluate the adequacy of the ICT strategy in respect of the following:

- Alignment of the ICT strategy to LC business goals for provision of an effective ICT function, ensuring long term aims and objectives of the business are considered and documented as per good practice.

- Arrangements for IT related risk management.

- Technology life cycles have been considered for proactive business continuity management.

- Future growth management is addressed with, and mechanisms are in operation for assessing increasing network/systems utilisation.

- Performance and monitoring mechanisms are in operation to address business requirements through Service Level Agreements (SLA).

- There is a clear specification of IT compliance regulations and expected standards.

Assurance Statement

Assurance Level	Description
Moderate	An adequate control framework is in place but there are weaknesses and/or a lack of compliance with recognised practices and standards which may put some system objectives at risk.

Recommendations	Red	Amber	Green	Total
Number Made:	0	1	2	3
Number Accepted:	0	1	2	3

Key Conclusions

1. **On the basis of testing performed, progress has been made since the 2014 Internal Audit review of ICT Strategy and a number of examples of good practice evidenced. The ICT strategy document has been developed with input from relevant parties and has been appropriately ratified. Testing confirmed that there are adequate arrangements for strategy review to ensure continued alignment with business goals.**

2. **Arrangements for IT related risk management were found to be generally well-controlled with a clear strategy and framework in operation. Testing confirmed that high level IT risks are clearly documented in the corporate risk register and the framework provides an escalation process to escalate low level risks to corporate level where necessary. Lower level IT risks are managed by CoL/Agilisys on behalf of London Councils and at the time of fieldwork there was limited visibility in this respect. A recommendation has not been made on the basis that Internal Audit were advised that risk review arrangements would be formalised with effect from March 2016, post audit testing.**

3. **Audit testing indicated that technology review arrangements for proactive business continuity management are generally adequate. Technology life cycle review is undertaken as part of the ICT strategy three year plan and quarterly service review meetings. Lines of responsibility for technology are clearly defined in the ICT Strategy and it is evident that several improvements have been made to overcome aged and poorly**

performing technology since the 2013 report on London Councils' IT infrastructure, for example the desktop and LAN refreshes. A recommendation has been made to undertake Disaster Recovery (DR) testing, however, to provide assurance that IT business continuity arrangements are sufficiently robust.

4. Testing confirmed that reporting is in operation on utilisation and growth management. Relevant information is communicated to interested parties on a regular basis and arrangements are in place to increase capacity. It is understood that a ten percent threshold is operated for disk utilisation this was not found to be formally documented and a recommendation has been made accordingly.

5. Performance and monitoring mechanisms are in operation to address business requirements through Service Level Agreements (SLAs). Evidence was obtained of regular engagement between Agilisys, CoL and London Councils based on relevant management information.

6. There is a clear specification of IT compliance regulations and expected standards and audit testing indicated that there are adequate measures in place internally to ensure on-going adherence. A recommendation was made in the 2014 audit review to implement an appropriate programme of training in line with industry guidelines which included compliance with DPA and FOI standards. Evidence was obtained during the current review to confirm implementation. However, a recommendation has been made in relation to arrangements for confirming third party compliance.

SECTION B : AUDIT FINDINGS

Alignment of Strategy with Business Goals

7. The ICT strategy, dated April 2015, was found to be owned by the Corporate Management Board (CMB) with the support of the London Councils IT function. It was noted that the Strategy was developed with input from senior management and other relevant parties and considers both the short and long term view to 2018.

8. Testing confirmed that business objectives and associated key services are clearly represented within the ICT strategy document and there is clear specification of the different work streams as presented by each directorate and division. The 'strategic next steps' section highlights the mechanisms for on-going ICT development and assurance of business processes fit for purpose with the production of an ICT Technical roadmap and improvement programme.

9. The strategy documentation was found to be current to April 2015 with suitable review mechanisms to maintain the content. Evidence was obtained of quarterly Strategy Review Group (SRG) scrutiny of Strategy deliverables. It may be beneficial for the Strategy documentation to make reference to the role of the strategy review meetings to clarify their scope and frequency.

IT Risk Management

10. In general, risk management activity was found to be regulated by the Risk Management Strategy and associated framework, as approved in 2012. A current corporate level risk register was made available and was found to clearly identify high level IT risks which are the subject of quarterly review.

11. A risk register was not available for IT risks below corporate level which are managed by the City of London via Agilisys. It is understood from discussion with key staff at the time of audit fieldwork that review of London Councils entries in the Agilisys risk register will be included as an agenda item in the monthly service review meetings.

<u>Technology Life Cycle</u>

12. The technology life cycle for London Councils refers to renewal cycles for existing network, hardware and software systems for provision of the appropriate technical solution to meet the business objectives. Satisfactory measures are in operation to manage technology and infrastructure upgrade requirements and modernisation, including clear lines of responsibility. The technology life cycle review is undertaken as part of the ICT strategy and the quarterly service review meetings assess the adequacy of current arrangements.

13. In 2013 the CoL produced a report on London Councils infrastructure and identified opportunities for improvement. Several solution proposal documents have been drafted following the 2013 report which aim to address the risk and include business continuity considerations, as evidenced in the Local Area Network (LAN) refresh project. An example of a completed project is the rollout of the Office365 email system and it is understood that this solution provides greater robustness and business continuity due to its implementation in the cloud.

14. It is understood that the current network is in urgent need of modernisation and a solution proposal has been drafted which is anticipated to provide greater resilience. Consideration should be given to requesting further system/ network utilisation information from CoL/Agilisys once the LAN refresh project has been completed and Solarwinds monitoring tool has been implemented.

15. Testing indicated an area of weakness in relation to the Disaster Recovery (DR) element of the business continuity process. Internal Audit have been advised that DR testing will commence once the IaaS platform and an upgraded network connection is in place as part of the LAN refresh project. A recommendation has been made on the basis that assurance cannot be provided that key services will be available in the event of a disaster.

Priority	Issue	Risk
Amber	No evidence was obtained of Disaster Recovery test exercises having been performed.	Assurance cannot be provided that the IT element of Business Continuity will ensure availability of key services in the event of a disaster.
Recommendation 1: Disaster Recovery test exercises should be scheduled at the earliest opportunity to ensure continuity.		

Management Response and Action Plan
Recommendation accepted. London Councils have added a comprehensive testing plan to be carried out in conjunction with the City of London and Agilisys. The test plan along has been ratified by London Councils CMB and will reside in the current Business Continuity Plan (Appendix A, page 62-63) activity to commence April 2016. Testing results will be available in the quarterly updates of the BCP plan next due in July 2016. This will be implemented by August 2016

Responsibility: London Councils
Target Implementation Date: 31 August 2016

* Where recommendation not accepted indicate alternative action that will be taken to mitigate risk or reasoning for accepting risk exposure to be provided |

<u>Growth Management</u>

16. For determination of growth management two areas were reviewed: the network utilisation and disk storage. A LAN refresh project is understood to be underway to overcome current deficiencies and assessment of network utilisation is a consideration for the future once the new LAN has been implemented.   Currently awareness of increasing network utilisation is noticeable through system slowness and the reporting of incidents rather than monitoring reports. A recommendation has not been made as Internal Audit have been informed on completion of the LAN project, Solarwinds will be introduced to enable network monitoring.

17. Discussion with key staff determined that Agilisys apply the same criteria for disk/storage management as that in operation for the CoL however this is not formally documented. The process is understood to be the trigger based resulting in the generation of automatic system alerts when available disk space falls below ten percent of the total disk space. Whilst this is considered to be an adequate mechanism, on-going utilisation reports may be of benefit as disk utilisation patterns and growth history can be analysed for unusual/unexpected increases.

Priority	Issue	Risk
Green	Disk storage thresholds are not documented. Additionally historical growth charts have not	Without formally documented arrangements LC cannot be sure the thresholds are as expected and potentially lower thresholds can result in system unavailability.

		been provided to London Councils.	

Recommendation 2: Usage criteria should be formalised and regular review of storage utilisation considered by management.
Management Response and Action Plan Recommendation accepted. The activity will be carried out by Agilisys and reviewed at our monthly SLA meetings between CoL and Agilisys and commence during second quarter 2016/17 meetings. Responsibility: London Councils Target Implementation Date: 31 August 2016 * Where recommendation not accepted indicate alternative action that will be taken to mitigate risk or reasoning for accepting risk exposure to be provided

<u>Performance and Monitoring</u>

18. Suitable mechanisms are in place for performance monitoring and reporting. The SLA between London Councils and CoL/Agilisys includes fix targets and Agilisys is tasked with the responsibility for performance and monitoring and reporting against these. Minutes of liaison meetings were reviewed as part of audit testing to confirm regular engagement.   It was noted that the main source of information is the monthly service review report which provides statistics of:

- Month on month reported incidents and service requests;
- The number of outstanding priority 1 and 2 with associated outage;
- Progress reports on various IT areas
- The number of calls unresolved against a range of times.

All of the above provides performance trend information and facilitates analysis against business requirements.

<u>Compliance and Standards</u>

19. Compliance arrangements are documented in the ICT strategy though these extend to requirements extend to third parties through software

systems, for example the Lorry Control Scheme which requires Payment Card Industry (PCIDSS) compliance. Audit testing determined that verification is not sought by London Councils of third party compliance and consideration should be given to performing periodic checks to provide on-going assurance in this respect.

Priority	Issue	Risk
Green	Checks are not performed to ensure third party compliance.	Without periodic checks and provision of evidence such as compliance certificates it cannot be guaranteed that London Councils' interests are adequately safeguarded.
Recommendation 3 Where compliance is the responsibility of a third party an annual compliance certificate should be obtained.		
Management Response and Action Plan Recommendation accepted. Most if not all our principle third part contracts such as Lorry Control and ESP are up for renewal this year. London Councils will ensure these checks and evidence of compliance certificates are made available and incorporated into the requirements for renewal or into the new contracts. This will be actioned by September 2016 Responsibility: London Councils Target Implementation Date: 30th September 2016 * Where recommendation not accepted indicate alternative action that will be taken to mitigate risk or reasoning for accepting risk exposure to be provided		

APPENDIX 1: AUDIT DEFINTIONS & RESPONSIBILITIES

Assurance levels

Category	Definition
Nil Assurance 'Dark Red'	There are fundamental weaknesses in the control environment which jeopardise the achievement of system objectives and could lead to significant risk of error, fraud, loss or reputational damage being suffered.
Limited Assurance 'Red'	There are a number of significant control weaknesses and/or a lack of compliance which could put the achievement of system objectives at risk and result in error, fraud, loss or reputational damage.
Moderate Assurance 'Amber'	An adequate control framework is in place but there are weaknesses and/or a lack of compliance which may put some system objectives at risk.
Substantial Assurance 'Green'	There is a sound control environment with risks to system objectives being reasonably managed. Any deficiencies identified are not cause for major concern.

Recommendation Categorisations

Priority	Definition	Timescale for taking action
Red - 1	A serious issue for the attention of senior management and reporting to the appropriate Committee Chairman. Action should be initiated immediately to manage risk to an acceptable level	Less than 1 month or more urgently as appropriate
Amber - 2	A key issue where management action is required to manage exposure to significant risks, action should be initiated quickly to mitigate the risk.	Less than 3 months
Green - 3	An issue where action is desirable and should help to strengthen the overall control environment and mitigate risk.	Less than 6 months

Note:- These 'overall assurance level' and 'recommendation risk ratings' will be based upon auditor judgement at the conclusion of auditor fieldwork. They can be adjusted

downwards where clear additional audit evidence is provided by management of controls operating up until the point of issuing the draft report.

<u>Any Questions?</u>

If you have any questions about the audit report or any aspect of the audit process please contact Nirupa Gardner Senior Auditor on Ext 1298