MAZARS

Final Internal Audit Report
Geographic Information Systems (GIS) Application
June 2018

Distribution: Executive Director Resources (Final only)

Head of ICT & Transformation

ICT Service & Contract Manager

Assurance Level	Recommendations Made	
Substantial Assurance	Priority 1	0
	Priority 2	2
	Priority 3	3

Contents

1. Introduction

1.1 The GIS application provides Croydon Council with a business tool that allows for detailed and bespoke mapping of its land and properties.

1.2 The application enables users to view, manage and edit the information stored within its maps. The use of the GIS application has wide ranging uses including providing up to date information for members of the public and staff, and to facilitate long term planning and development within the borough.

1.3 This audit is part of the Internal Audit Plan for 2017/18 as agreed by the General Purposes and Audit Committee.

2. Key Issues

Priority 2 Issues

User accounts with permissions to edit / amend sections of the GIS application (approximately 7% of permissions allocated) should be reviewed for appropriateness. **(Issue 1)**.

There is currently no formal interface map detailing all applications that GIS interfaces with on a regular basis. **(Issue 2)**.

The Priority 3 recommendations are detailed under item 4 below.

3. **Actions and Key Findings/Rationale**

Control Area 2: System Security

Priority	Action Proposed by Management	Detailed Finding/Rational – Issue 1
2	We have reviewed the accounts and now only test and system admin accounts remain. We will disable the test accounts and will review with Capita on how we manage these accounts going forward.	The GIS user list (and associated permissions) identified multiple areas for improvement: • A small number of instances (mostly test accounts) were identified where multiple accounts shared the same login username. • A naming convention was not in place (i.e. a consistent way of creating usernames that allows duplicate checking to be performed). • Generic accounts / usernames were identified which should be reviewed for appropriateness.

Responsible officer	Deadline
ICT Business Partner Manager	Implemented

GIS Application 2017/18

Control Area 3: Interface Controls and Processing

Priority	Action Proposed by Management	Detailed Finding/Rational – Issue 2
2	An interface map has been created recently by the GIS Consultant - GIS AS IS Architecture for the new GIS Strategy (Attached).	An interface map was not available during audit testing. Interface maps detail the key applications that interface with an application on a regular basis. It is used for many reasons: • Allowing management to confirm that all interfaces are being regularly monitored and issues resolved). • As a tool for updating the GIS application (planning in advance which systems will need to remain compatible after the update). • Disaster Recovery (knowing what supporting applications need to be restored alongside GIS to restore full service).

Responsible officer	Deadline
ICT Business Partner Manager	Implemented

4. Priority 3 Issues

	Agreed Action/s	Detailed Finding / Rationale
a)	At the moment Capita is in charge of the GIS Application. The new GIS Strategy is proposing a new GIS Team within the council with a GIS Manager / Coordinator.	A formal, documented owner for the GIS application could not be determined during the audit. Identifying a formal owner is an important governance control towards ensuring accountability and that actions can be assigned when key decisions are required.
b)	The new GIS Cloud Strategy lays emphasis on bringing control back to LB Croydon with emphasis on department's creating and maintaining their own layers thereby being able to run reports as and when needed.	Feedback from Council staff during the audit indicated an interest in obtaining functionality to create customised reports (so that teams can run reports internally, rather than relying on the GIS team to produce them).
c)	This is correct, however is being reviewed within the new GIS Cloud Strategy.	It could not be confirmed that each interface with the GIS application is being regularly reviewed to confirm it has occurred completely, accurately and in a timely manner. This is important as decisions may be made based on outdated or inaccurate information.

TERMS OF REFERENCE

GIS APPLICATION

1. INTRODUCTION

1.1 The GIS application provides Croydon Council with a business tool that allows for detailed and bespoke mapping of its land and properties.

1.2 The application enables users to view, manage and edit the information stored within its maps. The use of the GIS application has wide ranging uses including providing up to date information for customers and staff and to facilitate long term planning and development within the borough.

2. PURPOSE AND METHODOLOGY

2.1 The overall audit objective of this audit is to provide an objective independent opinion on the adequacy and effectiveness of the control environment with regards to the GIS application.

2.2 In order to achieve the overall objectives, a risk based systems audit approach will be carried out, documenting and evaluating the actual controls against those expected and based on this, undertaking appropriate audit testing.

2.3 The key findings arising will be discussed and agreed with management at an exit meeting, followed by the circulation of a draft report for consideration and development of a management response. The final audit report will then be issued.

3. SCOPE

3.1 This audit will examine the Council's arrangements for controlling the GIS application:

Control Areas/Risks	Recommendations Made		
	Priority 1 (High)	Priority 2 (Medium)	Priority 3 (Low)
Application Management and Governance	0	0	1
System Security	0	1	0
Interface Controls and Processing	0	1	1
Data Input	0	0	0
Data Output	0	0	1
Change Control	0	0	0

System Resilience and Recovery	0	0	0
Support Arrangements	0	0	0

DEFINITIONS FOR AUDIT OPINIONS AND RECOMENDATIONS

In order to assist management in using our reports:

We categorise our **audit assurance opinion** according to our overall assessment of the risk management system, effectiveness of the controls in place and the level of compliance with these controls and the action being taken to remedy significant findings or weaknesses.

🟢	Full Assurance	There is a sound system of control designed to achieve the system objectives and the controls are consistently applied.
🟡	Substantial Assurance	While there is basically a sound system of control to achieve the system objectives, there are weaknesses in the design or level of non-compliance which may put this achievement at risk.
🟠	Limited Assurance	There are significant weaknesses in key areas of system controls and/or non-compliance that puts achieving the system objectives at risk.
🔴	No Assurance	Controls are non-existent or weak and/or there are high levels of non-compliance, leaving the system open to the high risk of error or abuse which could result in financial loss and/or reputational damage.

Priorities assigned to recommendations are based on the following criteria:

Priority 1 (High)	Fundamental control weaknesses that require the immediate attention of management to mitigate significant exposure to risk.
Priority 2 (Medium)	Control weakness that represent an exposure to risk and require timely action.
Priority 3 (Low)	Although control weaknesses are considered to be relatively minor and low risk, action to address still provides an opportunity for improvement. May also apply to areas considered to be of best practice.

STATEMENT OF RESPONSIBILITY

We take responsibility to the London Borough of Croydon for this report which is prepared on the basis of the limitations set out below.

The responsibility for designing and maintaining a sound system of internal control and the prevention and detection of fraud and other irregularities rests with management, with internal audit providing a service to management to enable them to achieve this objective. Specifically, we assess the adequacy and effectiveness of the system of internal control arrangements implemented by management and perform sample testing on those controls in the period under review with a view to providing an opinion on the extent to which risks in this area are managed.

We plan our work in order to ensure that we have a reasonable expectation of detecting significant control weaknesses. However, our procedures alone should not be relied upon to identify all strengths and weaknesses in internal controls, nor relied upon to identify any circumstances of fraud or irregularity. Even sound systems of internal control can only provide reasonable and not absolute assurance and may not be proof against collusive fraud. The matters raised in this report are only those which came to our attention during the course of our work and are not necessarily a comprehensive statement of all the weaknesses that exist or all improvements that might be made. Recommendations for improvements should be assessed by you for their full impact before they are implemented. The performance of our work is not and should not be taken as a substitute for management's responsibilities for the application of sound management practices.

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