Aberdeen City Council

IT Asset Management

Internal Audit Report 2014/2015 for Aberdeen City Council

January 2015

	Target Dates per agreed Internal Audit Charter	**Actual Dates**	**Red/Amber/Green and commentary where applicable**
Terms or reference agreed 4 weeks prior to fieldwork	27 October 2014	25 September 2014	Green
Planned fieldwork start date	24 November 2014	24 November 2014	Green
Fieldwork completion date	5 December 2014	5 December 2014	Green
Draft report issued for Management comment	19 December 2014	20December 2014	Green
Management Comments received	23 January 2015	20 January 2015	Green
Report finalised	30 January 2015	30 January 2015	Green
Submitted to Audit and Risk Committee	February 2015	February 2015	Green

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1. Executive Summary

Report classification	Total number of findings ← Section 3 →				
		Critical	**High**	**Medium**	**Low**	**Advisory**
Medium	Control design	-	-	2	-	1
	Operating effectiveness	-	-	-	2	-
	Total	-	-	**2**	**2**	**1**
	Responsible Director: Director of Corporate Governance Project Sponsor: Head of Customer Service and Performance					

Summary of findings

1.01 ICT is responsible for the management of the ICT inventory assets. The scope of our review was to assess the maintenance of the ICT assets and how it aligns with the Council's corporate strategies. In the course of our review we have identified two medium risk findings:

- The ICT asset inventory is not consistently updated following HR events (refer finding 3.01); and
- The assets stored within the ICT stock rooms are not subject to regular review to ensure that the records are complete and accurate, and all stock is appropriately accounted for (refer finding 3.02).

1.02 The systems and processes in place are not wholly in line with current best practice. ICT are aware of this and currently have a project underway to introduce a new service delivery system, which will include provision for a new, centralised ICT asset inventory. This is planned to be implemented in 2015, and will replace the existing inventories maintained. This technology solution, along with process improvements under consideration by ICT management should allow for stronger controls for monitoring ICT assets throughout the Council.

1.03 In the course of our review we identified areas of good practice operating within ICT asset management. In particular, we noted that there is an ICT Asset Management plan in place which aligns with the Councils Corporate Strategy, and is reviewed on an annual basis at the Finance, Policy and Resource Committee.

Management comments

The auditor was knowledgeable on their subject matter and provided some additional suggestions for inclusion in our Asset Management procedures. The audit highlighted that we hold detailed information on our assets, but that this is not always recorded in such a way to maximise its use. The findings are not unexpected and tie up with our current planned IT Service Improvements.

2. Detailed findings and recommendations

2.01 Updating the ICT asset inventory following HR events – Control design

Finding

There is no process in place to ensure that the ICT hardware inventory is updated following key Human Resources (HR) events such as recruitment, redeployment, extended leave, resignation or dismissal. At present ICT is solely reliant on the department managers informing ICT of any staff who have had any change to their job status.

Furthermore, the specific users of the laptops are not able to be identified from the ICT asset management inventories for all users, as departmental managers may have all assets for their team recorded under their own name.

Risks

If ICT are not aware of changes to staff employment status, the ICT inventory assets will not be updated to reflect the changes. This could lead to, for example, a heightened risk that management would be unable to identify which assets needed to be returned, which could potentially result in equipment not being returned.

Action plan

Finding rating	Agreed action	Responsible person / title	Target date:
Medium	1. Timely information driven from HR records will be investigated, to ensure ICT are made aware of any changes to employee status. 2. Regular reconciliations between leavers and the asset database will be performed, to ensure that the inventory remains current, and all assets are known. 3. ICT analysts will be reminded of their requirement to document the name and signature of the user of the asset when updating the hardware sheet, even where a number of assets are signed out by the departmental manager.	1. & 3. Sandra Massey, IT Manager 2. Craig Falconer, Service Desk Co-ordinator	1. 30 April 2015 2. 30 April 2015 3. 31 January 2015

2.02 Performance of regular stock takes– Control design

Finding

ICT do not perform reconciliations to ensure that the asset database records completely and accurately reflects the actual stock held in the store rooms. Best practice of asset management includes performing regular stock takes of assets held within local stores, to ensure that they are accurately reflected within the Council's records.

We note that access to the stock rooms is restricted to only those responsible for signing out assets, and staff who manage the communications equipment, which partially mitigates the risks.

Risks

There is a risk that the stock listed on the database is inaccurate or incomplete. This may be due to stock being removed from the store room and ICT not being informed in of any movement. There is a heightened risk of fraud or theft, as misplaced assets may not be identified.

Action plan

Finding rating	Agreed action	Responsible person / title
Medium	The Service Desk team will perform a periodic stock count to confirm that all assets recorded as being 'in stock' within the inventories are complete and accurate. Any discrepancies will be investigated and documented accordingly within the asset register and financial systems.	Craig Falconer, Service Desk Co-ordinator
		Target date:
		31 January 2015

2.03 Maintenance of the ICT Asset Inventory – Control Design

Finding

From our review of the ICT inventories, we noted that:

1. There are currently three different inventories maintained by ICT, for computers, mobile devices and historic assets. As such there is no overall view of ICT assets owned by the Council. We note that a new system is currently being investigated that would address this finding.
2. Management have limited access to data they require in order to compare current performance to what is stated in the ICT Asset Management Plan. At present they can gain information on measures such as spend per unit; however they cannot gain information for all the measures as listed on the ICT Asset Management plan.
3. There are no formal written procedures in place for the actions to be taken if stock is lost, stolen or requiring repair.
4. There is no assessment for the criteria used to justify asset disposal, to ensure that assets are correctly and appropriately disposed.

Risks

By not maintaining a central inventory, that is fully reflective of all asset changes, there increased risks that:

1. Performance of ICT may not be aligned to the performance measurements which have been listed in the ICT Asset Management Plan.
   Inconsistencies may be introduced to the various inventories when updating asset details.
2. Data in the ICT Asset Inventory may be inaccurate, due to inconstancies in updating asset data in areas where no formal procedures have been defined.
3. Assets may be being disposed of which should not be disposed resulting in a waste of resources. Alternatively, assets may not be disposed of when they should be; therefore potentially incurring high repair costs.

Action plan

Finding rating	Agreed action	Responsible person / title	Target date:
Low	1. Implement a system that allows for information to be centrally recorded, and supports reporting to monitor performance of key indicators to those agreed within the ICT Asset Management Plan. This action is dependent on the implementation of the new IT Service Management tool, the purchase of which is subject to Committee approval in February 2015. Current timescales are for implementation by December 2015. In the meantime, we will undertake more consistency checks between the existing systems 2. Formal procedures will be introduced to define how to update the ICT Asset Database for events such as lost or stolen assets. These procedures should be reviewed on an annual basis 3. Disposal criteria of assets will be documented, assessed and evidenced on a quarterly basis.	1. Sandra Massey, IT Manager 2.& 3. Craig Falconer, Service Desk Co-ordinator	1. 31 December 2015 2. 28 February 2015 3. 31 January 2015

2.04 Maintenance of ICT asset inventory – Operating deficiency

Finding

Through our testing of a sample of 25 asset purchases, we noted:

- Two occasions where the purchase service sheet was not uploaded to the VQSM system, resulting in insufficient evidence of approval.
- Four occasions where the signature used to authorise purchases was not on the authorised signatory listing. For all instances, the purchase had been appropriately approved through the procurement process.

Furthermore, it was noted that repairs to ICT assets are not recorded against specific assets within the Asset Database.

Risks

There is a risk that assets have not been approved by ICT before purchase. These assets may be of a higher cost, which would result in ICT not achieving their targets as set out in the ICT Asset Management Plan.

As repairs are not being documented, management are unable to track recurring issues and repair costs associated with certain asset types.

Action plan

Finding rating	Agreed action	Responsible person / title	Target date:
Low	1. All supporting documentation and authorisation will be retained and uploaded onto VQSM. 2. The list of authorised signatures will be kept up to date and only employees on this list can authorise the purchase of assets. 3. A repair function will be built into the specification of the new IT Service Management Tool, in order to enable ACC to identify repair trends. This will allow reports to be run to see if there are particular assets which have high repair costs.	Sandra Massey, IT Manager	1. 31 January 2015 2. 31 January 2015 3. 31 December 2015

2.05 No asset lifecycle has been defined – Control design

Finding

ICT assets do not have a defined life cycle; assets are only replaced when the asset is no longer functional, or during special projects requiring upgrades to hardware (such as the XP replacement programme).

Per discussion with ICT Management, we noted that this is due to budget restrictions.

Due to the nature of change within technology, most organisations seek to replace IT assets, such as laptops and mobile devices, within a 3-5 year life cycle, to ensure that they remain current, provide the required level of service and performance, and are capable of receiving all required security updates.

Risks

ICT Assets may become redundant and not function with software updates, which could result in work being performed by staff being inadequate.

Action plan

Finding rating	Agreed action	Responsible person / title
Advisory	Consider introducing an Asset life cycle to allow ICT to track costs and maintain appropriate assets to support the services' operations. To be considered within the revised ICT Asset Management Plan.	Sandra Massey, IT Manager
		Target date:
		30 April 2015

Appendix 1 – Background and Scope

Background

2.01 The scope of our review was to understand and evaluate the controls in place over the Council's technology assets. ICT are responsible for the management of over 20,000[1] different assets, including computers, mobile devices, corporate network, and key business applications. Management estimate the replacement value for these assets exceeds £16 million[1]. We focussed on understanding how the ICT Asset Management Plan aligns with the overall Council asset strategy, and how ICT maintain the ICT assets to support the Council's operations.

Policy and procedure

2.02 There is an ICT Asset Management Plan in place which is aligned to the Council's Corporate Asset Strategy, which is reviewed on an annual basis. ICT asset management is regularly discussed at the Finance, Policy and Resource Committee. At present there are only limited reports that can be run to measure actual performance against the suggested benchmarks in the ICT Asset Management Plan due to system limitations.

2.03 There are currently three separate ICT asset inventories in place. Management are currently investigating a new service desk system that would allow for a more automated, central asset management system to be introduced.

Scope and limitations of scope

2.04 The detailed scope of this review is set out in Appendix 2 in the Terms of Reference. We have undertaken a review of the design and operating effectiveness of the Council's control's for ICT Asset Management specifically those controls disclosed in the scope in the Terms of Reference. Our work was undertaken using a sample based approach.

[1] *Statistics from management's assessment within the ICT Asset Management Plan - 2013*

Appendix 2 – Basis of our classifications

Individual finding ratings

Finding rating	Assessment rationale
Critical	A finding that could have a: • ***Critical*** impact on operational performance; or • ***Critical*** monetary or financial statement impact; or • ***Critical*** breach in laws and regulations that could result in material fines or consequences***;*** *or* • ***Critical*** impact on the reputation or brand of the organisation which could threaten its future viability.
High	A finding that could have a: • ***Significant*** impact on operational performance; or • ***Significant*** monetary or financial statement impact ; or • ***Significant*** breach in laws and regulations resulting in significant fines and consequences ***;*** *or* • ***Significant*** impact on the reputation or brand of the organisation.
Medium	A finding that could have a: • ***Moderate*** impact on operational performance; or • ***Moderate*** monetary or financial statement impact; or • ***Moderate*** breach in laws and regulations resulting in fines and consequences; or • ***Moderate*** impact on the reputation or brand of the organisation.
Low	A finding that could have a: • ***Minor*** impact on the organisation's operational performance; or • ***Minor*** monetary or financial statement impact; or • ***Minor*** breach in laws and regulations with limited consequences; or • ***Minor*** impact on the reputation of the organisation.
Advisory	A finding that does not have a risk impact but has been raised to highlight areas of inefficiencies or good practice.

Report classifications

Findings rating	Points
Critical	40 points per finding
High	10 points per finding
Medium	3 points per finding
Low	1 point per finding

Report classification	Points
Low risk	6 points or less
Medium risk	7– 15 points
High risk	16– 39 points
Critical risk	40 points and over

Appendix 3 – Agreed Terms of reference

Background

Aberdeen City Council has a significant volume of ICT assets across a number of sites and services. To achieve value for money, and full use from the hardware and software in use, it is important that all ICT assets are:

- Tracked and managed appropriately;
- Able to support service delivery and planning requirements;
- Upgraded appropriately, and developments are rolled out to the correct PCs;
- Appropriately protected from impacts of loss or theft; and
- Replaced on a timely basis, once they reach the end of their useful life

Scope

We will review the design and operating effectiveness of the key controls operated by corporate ICT to monitor ICT asset management. The sub-processes included in this review are:

Sub-process	Control objectives
IT Asset Management	• Management have a formal IT Asset Management Plan in place that is aligned to the Council's Corporate Asset Strategy • ICT and Corporate management have access to appropriate management information to enable them to measure performance in achieving the IT Asset Management plan
IT Inventory	• Management maintain an IT hardware asset inventory; • The IT hardware asset inventory is updated on a regular basis and responsibility for maintenance is assigned to appropriate individual(s) • The IT hardware asset inventory is updated for the impact of certain key IT events including: o Purchase o Deployment o Redeployment o Reported loss or theft; and o Retirement • The IT hardware asset inventory is updated for the impact of certain key HR events including : o Recruitment o Redeployment o Extended Leave o Resignation; and o Dismissal

Limitations of scope

The scope of our review is outlined above, and will be focussed on IT assets controlled by Corporate ICT. All controls testing will be undertaken on a sample basis. Internal control, no matter how well designed and operated, can provide only reasonable and not absolute assurance regarding achievement of an organisation's objectives. The likelihood of achievement is affected by limitations inherent in all internal control systems. These include the possibility of poor judgment in decision-making, human error, control processes being deliberately circumvented by employees and others, management overriding controls and the occurrence of unforeseeable circumstances.

Audit approach

Our audit approach is as follows:

- Obtain an understanding of the procedures in place through discussion with key personnel, review of documentation and walkthrough tests where appropriate.
- Identify the key risks in respect of IT asset management.
- Evaluate the design of the controls in place to address the key risks.
- Test the operating effectiveness of the key controls on a sample basis.

Key Council Contacts

Name	Title
Paul Fleming	Head of Customer Service and Performance
Sandra Massey	ICT Manager

Appendix 4 - Limitations and responsibilities

Limitations inherent to the internal auditor's work

We have undertaken a review of the IT Asset Management, subject to the limitations outlined below.

Internal control

Internal control, no matter how well designed and operated, can provide only reasonable and not absolute assurance regarding achievement of an organisation's objectives. The likelihood of achievement is affected by limitations inherent in all internal control systems. These include the possibility of poor judgment in decision-making, human error, control processes being deliberately circumvented by employees and others, management overriding controls and the occurrence of unforeseeable circumstances.

Future periods

Our assessment of controls relating to IT Asset Management is as at December 2014. Historic evaluation of effectiveness is not relevant to future periods due to the risk that:

- the design of controls may become inadequate because of changes in operating environment, law, regulation or other; or
- The degree of compliance with policies and procedures may deteriorate.

Responsibilities of management and internal auditors

It is management's responsibility to develop and maintain sound systems of risk management, internal control and governance and for the prevention and detection of irregularities and fraud. Internal audit work should not be seen as a substitute for management's responsibilities for the design and operation of these systems.

We endeavour to plan our work so that we have a reasonable expectation of detecting significant control weaknesses and, if detected, we shall carry out additional work directed towards identification of consequent fraud or other irregularities. However, internal audit procedures alone, even when carried out with due professional care, do not guarantee that fraud will be detected.

Accordingly, our examinations as internal auditors should not be relied upon solely to disclose fraud, defalcations or other irregularities which may exist.