

INTERNAL AUDIT REPORT

FROM: Audit and Risk Manager

SUBJECT: Software Licensing

TO: ICT Services Manager

DATE: 21 March 2015

C.C. Chief Executive
Deputy Chief Executive (AJ)
Head of Finance

1 INTRODUCTION

- 1.1 In accordance with the Audit Plan for 2014/15, a review of the Council's Software Licensing controls was completed in March 2015. The review was undertaken by Andy Shade, an auditor working for TIAA, the company appointed under a joint tendering exercise to perform IT audits for the local authorities in Warwickshire.
- 1.2 This report is intended to present the findings and conclusions for information and action where appropriate.
- 1.3 Wherever possible, results obtained have been discussed with the staff involved in the various procedures examined and their views are incorporated as appropriate in any recommendations made. My thanks are extended to all concerned for the help and co-operation received during the audit.

2 SCOPE AND OBJECTIVES OF AUDIT

- 2.1 The audit was undertaken in order to report a level of assurance on the robustness of the Council's processes and controls around the management of software licenses.
- 2.2 The audit comprised a high level risk-based review and appraisal of the following key aspects of the software licensing process:
 - Policies and Procedures;
 - Software Licensing Risk Management;
 - Software Asset Management System;
 - License Management/ Ownership;
 - License Monitoring and Reporting;
 - Microsoft Licensing.
- 2.3 The audit was conducted through discussion with the ICT Services Manager, the Infrastructure team and other relevant staff with reference to process documents and application records/ evidence as appropriate. The principal contacts were Ty Walter (ICT Services Manager), Lee Millest (Desktop Services Manager) and Richard Bates (ICT Infrastructure Manager).

3 FINDINGS

3.1 Policies and Procedures

- 3.1.1 The Council's approach to software management is documented as part of the "Warwick DC – Software Policy" document. The policy includes high-level descriptions of the processes followed in relation to software licensing at the Council.
- 3.1.2 The software policy is made available to all staff via the Council's intranet and the policy is referenced in the online training package that must be completed by all staff as part of their induction process.
- 3.1.3 Through review of the policy we confirmed that it sets out key aspects of software license management process including sections concerning software acquisition, software inventory management, software installation and registration, software removal, transfer of licenses, and software misuse.
- 3.1.4 The policy is subject to regular review and revision on an 'at least annual' basis and was last updated in February 2015. The document includes sections for version control, includes a revision history and details the staff who own and are accountable for the policy.

3.2 Software Licensing Risk Management

- 3.2.1 Risks concerning software licensing are documented as part of the ICT Team Operational Plan. This includes a register of the ICT service's high level risks. This log is maintained and updated separately to the main risk register (ICT Services – Risk Register) due to the nature of the risks concerned i.e. these are risks that are volatile and subject to frequent change as a result of Council initiatives or changes to departmental plans.
- 3.2.2 Audit review of the risk log identified that key software licensing risks considered by the Council include the inability to identify installed applications, poor record keeping, lack of application control and lack of understanding around license terms and conditions. The main mitigating controls detailed in relation to these risks include the introduction of a formal Software Asset Management system (considered in more detail in section 3.3) and management training in the use of the system.
- 3.2.3 Formal management training in the system was provided at the time it was initially introduced in 2013, but has not been repeated recently. Management has advised us that formal training remains an option if it is deemed necessary but that the Desktop Services Manager has sufficient expert knowledge to be able to provide in-house training as and when it is required.

3.3 Software Asset Management System

- 3.3.1 Snow License Manager (Snow) is the application used to manage information relating to all the software applications in use across the Council. The application has been in use for some time although there is currently an

ongoing effort being made to utilise the software more fully, and make better use of its asset management features.

- 3.3.2 Snow is used to capture and report information relating to all applications installed on all assets across the Council network. The software performs regular scans and identifies any commercial software running on the Council machines, providing the council with a “master list” of all software in use.
- 3.3.3 Software in use at the Council is automatically detected by Snow, data and evidence relating to each application’s licensing status must be manually entered. Required information includes: the date the software was acquired; the software serial number; details concerning software support arrangements for software upgrades; and evidence relating to the license including supporting emails and invoices. This is currently completed according to the user’s expert knowledge of the process – there is no procedure document or guideline defining the process to be followed or providing baseline information on those fields that must be completed or those that can be ignored, and describing the amount of detail / evidence that must be provided.

Risk

The absence of documentation detailing the process and level of information required may result in insufficient data being entered and inconsistencies in the extent of license evidence captured within Snow.

Recommendation

Management should document the process to be followed when entering / amending data regarding applications in Snow. This should include detail on which fields must be completed and the extent of evidence that should be attached.

3.4 License Management/ Ownership

- 3.4.1 We found during the audit that although the ICT Services department maintains the register of all Council software it does not own the responsibility for ensuring all software is appropriately licensed. That responsibility varies according to the nature of the application and is broken into the following categories:
 - √ Microsoft Server & SQL Server applications – ICT Infrastructure Team
 - √ Other “Non-Business” application software – ICT Services
 - √ Business application software – System Owners within the Council.
- 3.4.2 As a result of the above, the processes around software license management and the extent of information recorded and retained have historically varied across the Council depending on the type of application.
- 3.4.3 Since the introduction and increased usage of Snow, ICT Services now has a complete, single register of all software applications in use within the Council. However, due to the differing processes around software license management, we found that there are inconsistencies in the amount of licensing information captured and recorded within the system. Whilst

information such as application title, publisher, and asset numbers of the machines that the application is installed on is recorded for all applications, there is not a complete record of licensing information and evidence for all applications as this has only historically been a requirement for ICT Services-owned applications.

Risk

The absence of complete licensing information for all applications may result in a lack of assurance that appropriate licenses are held for all software used by the Council.

Recommendation

Management should perform an exercise to gather licensing information and evidence relating to 'line-of-business' applications. An ongoing requirement that business System Owners provide ICT with relevant license evidence at the point of acquisition should be introduced.

3.5 License Monitoring and Reporting

3.5.1 The Snow application is used to produce a range of reporting that enables expert users to identify anomalies around licensing for further investigation. These reports include:

- ▼ Overlicensing – details of applications where it appears the Council has more licenses than have been detected on machines.
- ▼ Underlicensing – applications where the number of licenses reported is less than the number of instances of the application detected.
- ▼ Computers not inventoried – provides a list of computers that are on the network but which are not in Snow (i.e. the Snow client has not been installed on the machine).

3.5.2 Through discussion with the Desktop Services Manager and from a review of examples we confirmed that these reports are used on an ad-hoc basis to identify and investigate instances of potential under-licensing, over-licensing and instances where the Snow client was not installed on the local machine.

3.5.3 During the audit we discussed the possibility of formalising the exercise of running and reviewing these reports on a regularly-scheduled basis and documenting the findings. ICT management advised that this might be considered in future, once the process of gathering licensing data for the business applications was more advanced, as the reporting will then be more useful and accurate. We consider this as a housekeeping point for the future rather than a control weakness and as such a formal recommendation has not been made as part of this report.

3.6 Microsoft Licensing

3.6.1 As businesses often require a large number of licenses for a range of different Microsoft applications, Microsoft offers an Enterprise Agreement (EA) which enables business to license their software in bulk at a discount, with tiered pricing applied according to the number of machines / applications being

licensed. The Council has recently obtained an EA covering the majority of its Microsoft products and which is valid for 3 years from 26/01/15.

- 3.6.2 We found during the audit that SQL Server licensing was not covered by the Microsoft EA, but confirmed that these have been licensed separately. This approach was deliberately taken as the Council had obtained expert advice from third party 'Phoenix' that this would provide better value for the Council.
- 3.6.3 The management of Microsoft licenses can be complex due to the number of applications, different versions of the multiple applications and license types involved. Microsoft has provided the Council with a detailed summary of licenses held known as the Microsoft License Statement (MLS).

The MLS has been used by the Council to update Snow with license data for Microsoft applications. However, through discussion with management, we found that there was an ongoing issue around reconciling the data between the MLS and Snow and there were some anomalies in the data being reported by Snow. This has been raised with an expert at Snow for investigation but had not been resolved by the end of the fieldwork of this audit.

Risk

Lack of assurance that all Microsoft Licenses are accurately represented in Snow, leading to potential inaccuracies in license reporting.

Recommendation

Management should obtain assurance from Snow that the application accurately reflects the licenses purchased and detailed in the MLS and that any errors have been rectified.

4 **CONCLUSIONS**

- 4.1 The audit did not highlight any urgent issues impacting materially the Council's ability to achieve its objectives. The audit did identify some Low / Medium rated issues that, if addressed, would improve the overall control environment. As a result, the findings are considered to give SUBSTANTIAL assurance that appropriate controls are in place around the management of software licenses.

5 **MANAGEMENT ACTION**

- 5.1 Recommendations to address the issues raised are reproduced in the Action Plan together with the management response.

Richard Barr
Audit and Risk Manager