



Software Licensing

Final Report

Issue Date: 11 March 2019

Working in Partnership to Deliver Audit Excellence

Executive Summary

Audit Opinion



In relation to the areas reviewed and the controls found to be in place, some key risks are not well managed, and systems require the introduction or improvement of internal controls to ensure the achievement of objectives.

Recommendation Summary

Priority	Number
Priority 1	2
Priority 2	2
Priority 3	2
Total	6

Audit Conclusion

A Partial audit opinion has been provided, as in the main, software licensing is not managed in a structured prescribed style. Two Priority 1 recommendations have been made, these both relate to reconciliation process that does not appear to happen. Two priority 2 recommendations have been made which relate to ICT staff installing software without prior approval, and the fact that web-based software cannot be monitored for usage, and subsequent licensing.

Two further Priority 3 recommendations have also been made. They relate to the way the procedural documents are not formalised and easily accessible by Powys County Council Officers, and the fact certain addons can be installed without an 'A' account.

This is the third report in succession that has highlighted the potential issues surrounding software licensing and its management. Despite several recommendations in previous reports, the process has not improved and remains a cause for concern.

Background

A software license is a document that provides legally binding guidelines for the use and distribution of software.

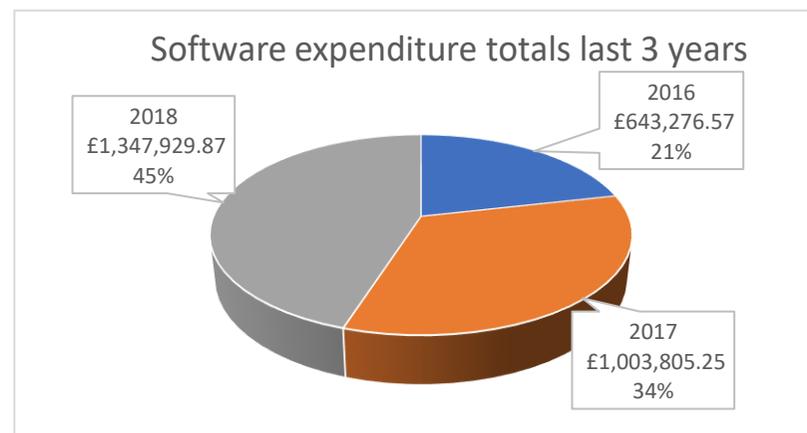
Software licenses typically provide end users with the right to one or more copies of the software without violating copyrights. The license also defines the responsibilities of the parties entering into the license agreement and may impose restrictions on how the software can be used. Software licensing terms and conditions usually include fair use of the software, the limitations of liability, warranties and disclaimers and protections if the software or its use infringes on the intellectual property rights of others.

Software licenses typically are either proprietary, free or open source, the distinguishing feature being the terms under which users may redistribute or copy the software for future development or use. A piece of software that is free for individual use may not be free for business use.

In the last 3 financial years, Powys County Council has coded nearly £3 million pounds of expenditure to the software. This will include new purchases, licensing expenses and maintenance fees. A breakdown of this can be seen below; *Report run 11 Feb 2019.

			2016 £	2017 £	2018* £	Sum: £
G10	Workforce Od and Comms	4305	881.23		477.13	1,358.36
G20	Business Services	4305	77,459.52	140,002.19	248,972.53	466,434.24
G50	Information Services	4305	219,244.86	484,802.48	774,993.53	1,479,040.87
G60	Financial Services	4305	5,404.50			5,404.50
G70	Highways Transport and Recycling	4305	35,515.31	175,084.84	93,659.13	304,259.28
G80	Corporate Activities	4305	14,114.00	2,034.98	11,640.44	27,789.42
LS04	Corp Legal and Democratic Service	4305	16,134.48	21,253.82	17,038.15	54,426.45
P20	Schools	4305	143,843.88	93,815.20	129,592.80	367,251.88
P40	Leisure and Recreation	4305	8,912.28	- 4,766.75	361.22	4,506.75
P50	Adult Services & Commissioning	4305	17,801.52	41,312.70	23,971.15	83,085.37
R310	Regeneration	4305	1,975.00	14,022.00		15,997.00
R40	Prop. Planning and Pub Protect	4305	64,482.28	4,259.34	13,459.79	82,201.41
R50	Housing	4305	37,507.71	31,984.45	29,279.00	98,771.16
RP20	Schools	4305			4,485.00	4,485.00
		Sum	643,276.57	1,003,805.25	1,347,929.87	2,995,011.69

Expenditure has significantly increased (this is to be expected in a digitally transforming council) in the last 3 years, it has more than doubled, which makes it essential that the process for monitoring and recording licenses is efficient and legally compliant.



Corporate Risk Assessment

Objective

- To establish that the Authority has the correct number of licenses for the software installed on the Laptops/PC's of the Authority.
- To ensure that the Council is not in breach of copyright laws.
- To ensure that purchasing and maintaining/usage of software and its licenses, achieves efficiency and cost effectiveness ensuring value for money is provided

Risk	Inherent Risk Assessment	Auditor's Assessment
A lack of Corporate Governance resulting in the uncontrolled or unapproved purchase of software and licences.	High	Low
The Authority is unaware of software installed and being used on employees' devices, resulting in non-compliance with the terms and conditions of the licences.	High	Medium
Licences are purchased that are not required, or the wrong type (read/write or read only), due to the Authority not knowing what its employees require.	High	High

Scope

To ascertain and document the systems and procedures, evaluate the internal controls and examine documentation in order to assess the adequacy and reliability of the processes ensuring

- that the Authority has the correct number of licenses for the software installed on the devices of the Authority;
- that the Authority is not in breach of copyright laws.
- the correct type of licence has been purchased

Findings and Outcomes

Summary of Control Framework

The procurement of software appears to be well controlled with all examples that were selected being purchased through the preferred supplier (Softcat). ICT use the SCCM software to automatically record all installs on all devices that connect to Powys County Council networks, this is completed weekly.

1.	A lack of Corporate Governance resulting in the uncontrolled or unapproved purchase of software and licences.	Low
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1.1	Finding and Action
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Issue	Risk
Policies and Procedures	Software which is not fit for purpose is purchased due to lack of governance/approval.

Findings

<u>Policies and Procedures</u>

Although, through discussion, it was stated that all pieces of software have a set process which they must go through before they can be purchased, it does not appear that this process is out in the public domain for Council employees to find and follow. The process involves seeking approval from the ICT Governance Team which meet on a regular basis. This was seen to be happening in some cases but testing (detailed later) showed that ICT approval is not always sought before software is installed on a user's device.

The policies that could be found were only available on the old intranet and have no control box on them stating when they were last updated and by whom. Therefore, as a result officers could be purchasing pieces of software without obtaining ICT approval, especially web-based software which requires no installation.

Recommendation

We recommended that the current documentation that governs the process for the procurement of new software should be formalised, updated and made available to all members of staff. The document should then be reviewed on a regular basis and recorded accordingly.	Priority Score	3
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Agreed Action	Timescale	Qtr 1 2019/20
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All documentation and processes have been formalised, but we will ensure this is available on the new Intranet and circulated accordingly.	Responsible Officer	Ellen Sullivan
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2. The Authority is unaware of software installed and being used on employees' devices, resulting in non-compliance with the terms and conditions of the licences.

Medium

2.1 Finding and Action

Issue	Risk
Unapproved Installations	Unapproved unlicensed software is installed on the Authority's devices, resulting in licence infringement followed by fines and reputational damage.

Findings

Rogue Installs

From a review of software installed on devices, a sample of 23 installations that were not typical Powys County Council installations were selected for review, these were items of software that did not have many installs meaning they were more likely a bespoke piece of software purchased for a particular project rather than a Microsoft product which would be used throughout the Authority, an email questionnaire was sent to the registered holder of the device which had the installations on them asking 4 questions:

- Is this software work related?
- Was ICT approval for software gained before installation?
- Was a license purchased?
- Who installed the software?

The following results were obtained:

- 4 did not respond despite reminders
- 6 claimed they were not aware of the installation on their device
- 5 were self-approved
- 3 had formal approval
- 1 helpdesk installed whilst officer was on phone (should have purchased a business licence)
- 2 Personal purchases installed by ICT
- 1 claimed it was on machine when they received it
- 1 installed it themselves (no 'A' Account needed) claimed it was covered by previous licence

It could be seen that in 20 (87%) of these cases official approval from ICT Governance Group had not been sought, in 5 cases ICT staff had made the decision to obtain the software themselves.

It was also seen that there were 18 instances of software which had been installed without a license being purchased as it was determined to be free. Upon investigation it was free for personal use, business use required a licence to be purchased. It was stated by the ICT Senior Field Service Engineer that he was going to push out a script to remove these installations.

It was also noted that users can install Addons for both Facebook and Office products, in one instance a games module from Facebook had been installed onto a Powys County Council device.

It would be a worthwhile exercise that ICT review the instances listed above to ensure the software fits with the requirements of the Authority and are appropriately licensed.

Purchases

It appears that software purchases are well controlled and ICT guidance is being followed. This is currently helped by the fact that individuals cannot install software themselves, and therefore must go through ICT procurement in order to get it installed after purchase.

This might become an issue in the future as more and more software is becoming web based which means no installation is required just an active internet connection. Currently, Powys County Council have no easy way to determine what web-based software is being utilised.

Recommendation

We recommended that ICT officers with an 'A' account do not install software without prior approval of the ICT Governance Group, this will ensure the correct license is in place prior to installation.

Priority Score	2
Timescale	QTR 2 2019/2020
Responsible Officer	Jonathon Evans

Agreed Action

ICT accepts that new software should be approved by ICT Governance, but installation should be delegated to appropriate staff

We will review and devise a process so that software installs will require authorisation from ICT Managers and/or Senior Officers where appropriate and necessary

Recommendation

We recommended that the ability to install addons is reviewed and where deemed appropriate, they are added to the group policy to stop installations without an 'A' account.

Priority Score	3
Timescale	QTR 2 2019/2020
Responsible Officer	James Hawksworth

Agreed Action

ICT accept this recommendation and will review

Recommendation		
We recommended that ICT devise a way to monitor web-based software applications. At the present time there is no easy way to determine what applications are being used.	Priority Score	2
Agreed Action	Timescale	N/A
ICT have the ability to reactivity monitor web traffic when requested or at intervals but do not have the ability or resource to proactively monitor web traffic to every website. Information Asset Owners within each service are responsible for the data that the service processes and therefore should take responsibility for the web-based systems they are using. ICT are unaware of any software or technology that is available in order for this recommendation to happen.	Responsible Officer	N/A

3.	Licenses are purchased that are not required, or the wrong type (read/write or read only), due to the Authority not knowing what its employees actually require.	High
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3.1	Finding and Action
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Issue	Risk
Software Licence Reconciliations	Inaccurate records are held resulting in the Authority holding too many or too few licenses which could result in large fines.

Findings

<u>Reconciliations</u>

Due to lack of supporting evidence, it is not possible to determine when the last software reconciliation had taken place, or if in fact one has ever been completed.

After receipt of the initial draft report, ICT provided tender documents for the Provision of Microsoft Enterprise Agreement 2018-2021. In this it states the required number and type of Microsoft licenses that would be required for Powys County Council to operate efficiently over the next 3 years. It was also stated by the ICT Technical Architect that they could 'True up or down' every 12 months. There is also the Office 365 portal which gives a snapshot of the current licence situation, which currently showed that 3 areas were unlicensed. Despite all the documents provided, there is still no evidence that any reconciliations have taken place before the retender process, and no evidence was provided for non-Microsoft products.

The SCCM system allows for a snapshot of the current Microsoft position, but this does not appear to be used in any capacity, although Microsoft adopt a 'true up/down' procedure where the final invoice is adjusted according to actual use. Although requested no evidence that this takes place was provided. For all other applications used, it is not possible to determine if Powys County Council has enough or in fact too many licenses for the software it uses as no accurate records were provided.

It was stated that in the example of Oracle products, site licenses are purchased, but they are looking to switch to a subscription model for concurrent/named user basis in the future due to the reduction in Oracle based systems.

Recommendation

We recommended that regular reconciliations between the number of licenses purchased compared to the number of users takes place for all pieces of software installed on Powys County Council devices. This should be the basis for purchasing more licenses if required, or in fact removing excess ones. This reconciliation should be recorded accordingly.	Priority Score	1
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Agreed Action	Timescale	QTR 1 2019/2020
ICT feel that the current reconciliation process of our EA agreement is well established however we accept that there is a short fall in the current process for some software (particularly adhoc installs) but going forward will create a licenses/purchase register which can then be used to reconcile the number of licenses and installs.	Responsible Officer	Nicky Peel
This will then feed the process agreed in recommendation 1 in Section 2.1		

3.2 Finding and Action

Issue	Risk
Software Analyses	The Authority does not have a definitive list of software assets in the event of a dispute or disaster recovery implementation.

Findings

Software Asset Management

In principle Powys County Council have the necessary tools to monitor all installs on all devices that connect to their networks. Data is collected weekly but not analysed by anyone. ICT use an application called SCCM which is a Microsoft product to collate all the data. Licence details are not held alongside the individual's machine or recorded against the specific software installation, this is also the case for any terms and conditions of the install, these are not recorded anywhere and if they are needed, the individual would have to go to the supplier web site to find a copy. As a result of the this, it is not easy to ascertain if there is enough or an excess of licenses for installed software.

Access to SCCM is restricted to certain individuals who require access as part of their duties. This is linked to the corporate AD account so, if a user leaves, their access is automatically revoked once they have been marked as a leaver in Trent. It was stated that no log was available to show any changes taking place in the system, whether this be automatic or manual.

Recommendation

Device data is being recorded automatically on a regular basis, unfortunately, nothing happens with it. We recommended that regular reviews of the data take place, to ensure only appropriate licensed software is being used.	Priority Score	1
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Agreed Action	Timescale	
See Action for 3.1	Responsible Officer	

Audit Framework and Definitions

Assurance Definitions

None	The areas reviewed were found to be inadequately controlled. Risks are not well managed, and systems require the introduction or improvement of internal controls to ensure the achievement of objectives.
Partial	In relation to the areas reviewed and the controls found to be in place, some key risks are not well managed, and systems require the introduction or improvement of internal controls to ensure the achievement of objectives.
Reasonable	Most of the areas reviewed were found to be adequately controlled. Generally, risks are well managed, but some systems require the introduction or improvement of internal controls to ensure the achievement of objectives.
Substantial	The areas reviewed were found to be adequately controlled. Internal controls are in place and operating effectively and risks against the achievement of objectives are well managed.

Definition of Corporate Risks

Risk	Reporting Implications
High	Issues that we consider need to be brought to the attention of both senior management and the Audit Committee.
Medium	Issues which should be addressed by management in their areas of responsibility.
Low	Issues of a minor nature or best practice where some improvement can be made.

Categorisation of Recommendations

In addition to the corporate risk assessment it is important that management know how important the recommendation is to their service. Each recommendation has been given a priority rating at service level with the following definitions:

Priority 1	Findings that are fundamental to the integrity of the service's business processes and require the immediate attention of management.
Priority 2	Important findings that need to be resolved by management.
Priority 3	Finding that requires attention.

Authors and Distribution

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