



Report of the Head of Digital and Transformation

Audit Committee – 11 December 2018

Implementation of Internal Audit Recommendations for Disaster Recovery Plan 2017/18

Purpose:	To update on Implementation of Internal Audit Recommendations for Disaster Recovery Plan 2017/18.
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For Information

1. Introduction

1.1 Following concerns raised by the Audit Committee in 2014, that recommendations by some services were not being implemented, any internal audit recommendations that were raised as a medium risk, would be monitored at PFM meetings. In order to provide assurance to Members that actions are taken to address the issues, Heads of Service will also attend Audit Committee.

2. Disaster Recovery Audit 17/18

2.1 The final report for the Disaster Recovery audit was issued on the 26th June 2018, with a moderate level of assurance. There were 21 recommendations, 12 classified as medium risks.

2.2 The medium risk recommendations are detailed in Appendix A. **All recommendations have now been implemented.** However, this audit merely focused on the Disaster Recovery Plan. It did not take account of resilience work already undertaken / underway and the strategy around Disaster Recovery. These focus on long term cost effective solutions to provide full Disaster Recovery for the Council, taking advantage of new technological solutions that have recently become available.

3. Resilience Work Undertaken / Underway

- 3.1 A new state of the art storage array was implemented in 2017 which provided a huge step in ensuring that the majority of the Council's data is resilient. It provides resilience for all users' data including all virtually hosted applications. This storage in the Civic centre is replicated in the Guildhall in real time. Therefore if there is a hardware failure there is a copy elsewhere which can be restored quickly.
- 3.2 To provide resilience for the aging servers, many of these have been migrated to the new VMWare virtual server farm. This means that performance and resilience is spread across multiple servers so if one failed another one would automatically take over. This also has the added benefit on an environmental and licensing cost basis as the VMWare virtual server farm requires less power and reduced licence costs.
- 3.3 Currently a modern, resilient backup solution for any residual on premise hardware is being investigated. This will improve efficiencies by cutting down on back up times and allowing more data to be backed up in a time frame therefore enabling quicker restore times in any DR situation.
- 3.4 A core infrastructure refresh on server and network equipment is being undertaken to aid resilience of the Council's network and will feed into the Disaster Recovery Plan.

4. Disaster Recovery (DR) Strategy

- 4.1 The Digital Strategy centres on a cloud first principle. This also relates to providing a long term DR solution. Microsoft have been commissioned and completed an investigation to review what can be transferred to the cloud once Swansea's internet infrastructure is upgraded by BT. Until this is completed any cloud migration will not be possible.
- 4.2 A number of areas still need investigating/completing before the business case on investment can be determined, including:
 - Auditing all the services currently used and their configuration
 - BT upgrade Swansea infrastructure. This will then provide internet connectivity to enable server cloud migration
 - Investigation of cloud based back-up solutions
 - Analysis of the Microsoft report for server cloud migration to identify what should and can move to a cloud based infrastructure e.g Azure and what will need to remain on premise. This hybrid approach will be key to providing a more cost effective Disaster Recovery solution.

5. Equality and Engagement Implications

Lack of appropriate DR can impact frontline services. However, the implementation of the IT solutions in themselves do not have equality or engagement implications as they are all back office activities.

6. Legal Implications

The Council is considering partnership working wherever possible. Legal implications may therefore apply in the future if any DR solutions can be delivered in collaboration.

7. Financial Implications

There will be future financial implications of the wider DR work, which are not currently known. Any investment proposals will need a full business case.

Background Papers: None.

Appendices: Appendix A

Appendix A – Medium Risk Recommendation as per Audit

REP REF	RECOMMENDATION	CLASS (HR; MR; LR; GP)	AGREED ACTION/ COMMENTS	RESPONS FOR IMPLEM	IMP DATE	CURRENT POSITION
Ownership and Management						
2.1.2 a)	Terms of Reference should be established.	MR	Agreed – Terms of reference will be established and issued to staff.	M Powney	30 Sept 2018	Actioned BC & DR Plan updated 09/18 section 7
c)	Regular reviews of the plan should be carried out by the team.	MR	Agreed	M Powney	30 Sept 2018	Actioned BC & DR Plan updated 09/18 section 3
Risk Assessment and Prevention						
2.2.1	The Plan should be reviewed on at least an annual basis.	MR	Agreed – Annual review to be carried out	M Powney	April 2019	Actioned Last reviewed and updated Sept 18, next due Sept 19.
2.2.5	b) An indication of the length of time the Council could survive without the system should be recorded.	MR	Agreed – For all systems times will be recorded.	M Powney	30 Sept 2018	Actioned BC & DR Plan updated 09/18 section 8.1
	c) Details of the minimum resources required to get the system up and running should be recorded.	MR	Agreed – Minimum resources needed will be recorded	M Powney	30 Sept 2018	Actioned

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						BC & DR Plan updated 09/18 section 8.1
2.2.6	For each system, information as to how the IT service would address the various systems objectives should be recorded.	MR	Agreed – How system objectives will be achieved will be recorded.	M Powney	30 Sept 2018	Actioned BC & DR Plan updated 09/18 section 8.1
2.2.7	Each risk highlighted should be detailed individually in the Councils Risk Registers.	MR	Agreed – IT service Risks will be recorded. Risk in relation to individual systems will be recorded in service risk registers . See report ref 2.4.1	M Powney	30 Sept 2018	Actioned Email issued on 6/11/11 to all Heads of Service by Head of Digital and Transformation
The Corporate Plan						
2.3.1						
b)	Full details of any Risk Assessments carried out should be fully recorded.	MR	Agreed – Assessments will be recorded.	M Powney	30 Sept 2018	Actioned No Risk Assessments have been carried out, but assurance given that they will be fully recorded.
c)	Recovery sites should be established.	MR	Agreed – The Costs of recovery sites will be established and forwarded to Senior Management.	M Powney	30 Sept 2018	Actioned Report taken to CMT by Head of

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						Digital and Transformation
IT Users Plans						
2.4.1	The IT department should liaise with all system owners to ensure each Business Continuity Plan has addressed the potential loss of hardware and software implications.	MR	Agreed – Systems Users will be contacted and they will be informed whether Recovery Sites are in place and how long system access is anticipated to be down. Also that system users are responsible for addressing this risk in their individual Business Continuity Plans.	M Powney	30 Sept 2018	Actioned Email issued on 6/11/11 to all Heads of Service by Head of Digital and Transformation
Resourcing						
2.5.2	Adequate insurance should be in place and maintained to ensure cover in a disaster.	MR	Agreed – Insurance section will be contacted to clarify the insurance in place to cover a disaster situation	M Powney	30 Sep 2018	Actioned Insurance section have been contacted and cover confirmed.
Testing the Plan						
2.7.1	Regular testing of the plan should take place.	MR	Agreed – testing for low to medium risk disasters. For major disasters costs will be taken into consideration	M Powney	30 Sept 2018	Actioned Emergency Management Team have agreed to undertake training next year.