

Part A

Report to: Audit Committee

Date of meeting: 6 December 2018

Report author: ICT Section Head

Title: Cyber Security: Aged Server Estate

1.0 Summary

1.1 At the September 2018 Audit Committee, the ICT Section Head, made a request for a further extension for the following outstanding Cyber Security audit recommendation:

- All devices that are running unsupported operating systems should be upgraded to run operating systems that are supported by the developer.
- Where it is not possible to upgrade the operating system of a device, it must be isolated from the Councils' IT network and appropriate security controls implemented.

1.2 As part of a wider Core Infrastructure Transformation programme, this workstream had several stages; server review, dependency identification, agree plan and deliver.

1.3 Each of the out of support servers followed either a decommission path, upgrade path or migration into a more secure part of the network, termed "Walled Garden". The current position of the 29 unsupported servers as of mid-November 2018:

- 5 have been migrated to the "Walled Garden"
- 15 have been decommissioned
- 9 servers require further action and have a scheduled decommission or migration date prior to the end of December 2018

2.0 Risks

2.1

Nature of risk	Consequence	Suggested Control Measures	Response (treat, tolerate, terminate or transfer)	Risk Rating (combination of severity and likelihood)
Failure to identify all server related dependencies	Loss of service	Investigation of all servers in detail to identify individual dependencies.	Treat	4

3.0 **Recommendations**

3.1 Committee notes the contents of this report.

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Report approved by: Andrew Cox, Head of Service Transformation

4.0 **Securing Unsupported Operating Systems**

- 4.1 All Operating systems require updates, through the form of patching, in order to secure the devices from emerging threats. In addition to this, as with other software, vendors have software cycles and upgrade paths where required in order improve performance, security, provide additional features etc.
- 4.2 At the start of the Core Infrastructure Transformation the W3R estate had a number of unsupported Microsoft operating systems. This meant that Microsoft stopped providing those essential security updates those servers needed, therefore making those devices more vulnerable to attacks from the outside world.
- 4.3 Through the Core Infrastructure Transformation programme, we have decommissioned over 160 servers across the estate. Several months ago we identified 29 servers, with an unsupported operating system that could not be easily decommissioned as there were dependencies on other infrastructure projects. For example the Exchange (Email servers), which were unsupported can only be decommissioned upon the successful completion of the W3R Active Directory and Exchange user migration project.
- 4.4 In order to secure the network the “Walled Garden” was created and the migration programme was initiated.
- 4.5 The “Walled Garden” is a term given to the part of a network that has additional security layers, thereby securing devices that are more prone to attack. Network access is enabled through a firewall, meaning that internal network traffic restricted from both sides. The “Walled Garden” segregates traffic from our internal network, where our other supported servers reside.

4.6 **Current Position**

4.7 Migration of services and servers to the “Walled Garden” or to be decommissioning requires extensive investigation and understanding of dependencies, else the risk is loss of services to business users. The need for the extension to resolve this project is as a result of some of those investigations taking longer than expected.

4.8 To date 5 servers have been migrated to the “Walled Garden”. A further 15 were decommissioned as a result of other projects concluding and resources focussed in this area.

4.9 Our current position is there are 9 servers awaiting migration and/or decommission which we are confident will be resolved by 31 December 2018

5.0 **Implications**

5.1 **Financial**

5.1.1 The Shared Director of Finance comments that there are no financial implications.

5.2 **Legal Issues** (Monitoring Officer)

5.2.1 The Head of Democracy and Governance comments that there are no legal implications in this report.

5.3 **Equalities, Human Rights and Data Protection**

5.3.1 No proposed service change or new policy.

5.4 **Staffing**

5.4.1 None

5.5 **Accommodation**

5.5.1 None

5.6 **Community Safety/Crime and Disorder**

5.6.1 None

5.7 **Sustainability**

5.7.1 None

Appendices

None

Background papers

No papers were used in the preparation of this report.