

29 September

Audit, Scrutiny and Transformation

Protecting Data

Report of: *IT Transformation and IT Security*

Wards Affected: *All*

This report is: *Public*

1. Executive Summary

- 1.1 The work programme to support IT Transformation and IT security falls into two themes: “Building a solid foundation” and “My Desktop Anywhere”.
- 1.2 The Council has a duty to protect its data. Further, we must do so in order to continue to provide a high level of service to customers. To allow this to happen, we need to ensure the availability of ICT systems and access to data in a secure and reliable manner. This is provided by the IT infrastructure and can be thought of as the foundation to build upon.
- 1.3 In addition, the Council faces challenges including a continued increase in the amount of data being processed and stored, service provision to customers outside normal operating times through online services, and increasing costs and reduced resources.
- 1.4 New Ways of Working (NWoW) initiative outlines the need for officers to access information in a variety of ways and time periods to support changing customer requirements and working patterns. Using technology to provide “My Desktop Anywhere” supports NWoW putting the power into the department to design and provide their service.
- 1.5 To support this transformation IT needs to further transform! The approach of “high availability by design” should be implemented. The aim of high availability is to maximise access to systems and data for officers and customers. IT Transformation is delivered through the Modern Work Programme. Phase 1 improves current storage and links this with Microsoft Azure cloud services to enable the Council to take full advantage of the “cloud”.

2. Recommendation(s)

2.1 That the details in this report are noted and the approach of high availability by design to IT transformation and security is agreed.

2.2 Schedule an information workshop to inform Members in more detail.

3. Introduction and Background

3.1 For the purpose of this report IT security can be thought of as protecting data so that it is secure from unauthorised access, its integrity is kept intact, and its availability is maximised to allow high quality and efficient Council service.

3.2 IT Transformation can be considered as updating, replacing or removing hardware and software that provides ICT services to officers and customers to ensure cost effective, secure and robust systems.

3.3 The traditional approach to this is becoming increasingly challenging due to:

- increased amount of data being processed and stored
- increased services to customers using online services
- increased costs to support ICT hardware and reduced resources
- providing sustainable ICT services

3.4 The New Ways of Working (NWoW) initiative allows Officers of the Council opportunities to adopt modern working practices, which in turn demands access to information in a variety of ways and time periods to support changing trends and flexible working.

3.5 As the demands placed on Council services evolves, the adoption of “high availability by design” for ICT services is recommend to support the needs of a modern workforce. This will allow Council departments to make informed decisions on how they want to provide services, Business Continuity Planning & Disaster Recovery while continuing to provide a high level of service to customers in an efficient and cost effective manner.

3.6 High availability seeks to maximise the time that systems and data are available to officers and customers. To accomplish this in a sustainable and cost effective manner, the Council should take advantage of cloud

services that will provide the economies of scale and, in effect, extend the resources of the current ICT service without the expensive overhead of outsourced arrangements. It will also be flexible and allow the control to remain in the hands of the Council.

4. Issue, Options and Analysis of Options

- 4.1 The requirement to securely store and process information continues to grow along with pressures to reduce costs. As the amount of data increases so does the length of time it takes to backup and protect this data, which in turn can have a negative effect on the performance of computing systems, due to back ups running at the same time as systems being used. It also increases the risk of data loss due to the length of time between backups.
- 4.2 The hardware that supports the computer systems requires constant maintenance and has a replacement cycle adding to the current costs. The more hardware onsite the greater the volume of work and cost. Also, by providing our own disaster recovery services, the hardware is duplicated, adding extra financial burden and strain on IT resources.
- 4.3 The Council has recently invested in Microsoft Azure cloud storage services and updated hardware in the Council's data centre that supports the increasing amount of data required to be stored. In the first instance this will provide improved data access performance. The new hardware also allows data to be backed up into Microsoft Azure cloud services. This will remove the need for traditional style backup to tape, and "by design" moves the data offsite into an approved, accredited and highly secure data centre. Backup schedules can be set to allow the protection of databases, documents and files to suit the required data retention. Access to this data allows fast and efficient restoration when required.
- 4.4 The investment in Microsoft Azure cloud services will allow the Council to adopt a similar approach to computer systems as it does to data backup. Which in turn will remove the need for stand-by hardware to be commissioned in the event of a disaster.
- 4.5 Using the approach of high availability by design in effect says "*computer systems and data will be available to you*". This allows departments to make easier decisions on how they want to provide services to customers. A working example of this is the recent implementation of Microsoft Office365 services for the provision of email to Members and officers. The Council is now using a critical service governed by strict SLAs to provide access to emails with a service availability of 99%. Not only are emails protected but it has enabled us to offer access to emails via internet browsers, and using mobile devices.

- 4.6 There will be a number of Council services which are prime candidates to move into a cloud environment. One of which is our website. This will allow continued access to information in the event of an incident at the Council offices or pre-arranged maintenance work.
- 4.7 As the technology continues to improve at a rapid pace, the Council will be in a better position to implement any updates and improvements quickly and efficiently, allowing all Council services to benefit from improvements.
- 4.8 As we add more data and services into Microsoft Azure cloud services, a flexible platform can be created to allow access to data in a smart and secure way. As officers, using “My Desktop Anywhere”, and customers connect to services, a tailor made experience can be given ensuring the right information is accessed at the right time. Complex installation of computer programs on specific hardware is being replaced with simple “Apps” for smart phones and tablets, and rich content delivered through internet browsers.
- 4.9 Extending our current data centre into the Microsoft Azure cloud services allows us to take advantage of the economies of scales within a world class data centre. It also positions the Council, when ready, to take advantage of full cloud services and moving all ICT to Microsoft Azure, leaving a small footprint to allow management and connection. Instead of investing in hardware that we think might be the right size for the demand over the next 3 years, cloud services allows scaling up and scaling down so that the Council uses and spends money on only what is required. Moving to cloud services will be a phased approach to ensure continued service delivery, embedding the changing culture of how the Council and the customers will consume digital services.

5 Reasons for Recommendation

- 5.1 To provide a robust computing service to support the changing needs of the Council’s working practices to support the modern workforce.
- 5.2 To provide the ‘high availability’ by design to support the overall transformation and NWoW as outlined in Audit Scrutiny & Transformation Agenda item 9 (29.09.2015).
- 5.3 To provide a cost effective and sustainable ICT service.

5 Consultation

- 6.1 LB Newham & LB Havering IT (“oneSource”) on design and implementation.

7 References to Corporate Plan

- 7.1 Support Transformation and New Ways of Working initiatives.

8 Implications

Financial Implications

Name & Title: Chris Leslie, Finance Director (Section 151)

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- 8.1 None directly arising from this report.

Legal Implications

Name & Title: Saleem Chughtai, Governance Lawyer – BDT Legal

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- 8.2 None

Other Implications (where significant) – i.e. Health and Safety, Asset Management, Equality and Diversity, Risk Management, Section 17 – Crime & Disorder, Sustainability, ICT.

- 8.3 This will have implications that will affect policies, services and processes. These will be captured as individual projects take shape and implemented.

9 Background Papers (include their location and identify whether any are exempt or protected by copyright)

- 9.1 None

10 Appendices to this report

None

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