

**26 November 2014**

**Audit & Scrutiny Committee**

**ICT Resilience and Business Continuity - Update**

**Report of:** *Tim Huggins, ICT Manager*

**Wards Affected:** *All*

**This report is:** *Public*

**1. Executive Summary**

- 1.1 At the Audit & Scrutiny Committee on the 28 October 2014 it was agreed as part of the Scrutiny Work Programme that a report on ICT Resilience and Business Continuity be placed before this Committee for consideration.
- 1.2 ICT Resilience is defined as the ability of the Council's equipment, machines, or systems to absorb the impact of the failure of one or more components or a significant disturbance in its environment, and to still continue to provide an acceptable level of service to users. This encompasses Disaster Recovery.
- 1.3 Business continuity is defined as the capability of the Council to continue delivery of services at acceptable predefined levels following a disruptive incident.
- 1.4 ICT Resilience and Business Continuity should always be the subject of regular review and scrutiny, due in the main to the pace of change but is particularly relevant following on from the major incident in May 2014 where ICT service was lost for a number of days. (See section 3.5 of this report).

**2. Recommendation(s)**

- 2.1 **That Members note the report with regard to the current and proposed arrangements for IT Resilience and Business Continuity.**
- 2.2 **That Members consider the actions being undertaken by the ICT service as set out within Section 4.5 of this report.**

### **3. Introduction and Background**

3.1 The ICT Resilience and Business Continuity Plan forms part of the Council's Business Continuity arrangements.

3.2 The Council has been implementing a number of ongoing technical projects to improve and optimise the Council's ICT infrastructure to support the changes and demands from its services and customers.

3.3 Progress has been made on both the technical infrastructure and officer facing services in supporting modern ways of working. The following approaches have been chosen not only to optimise services but also to simplify the complex provision of disaster recovery and business continuity services:

- Majority of "Line of Business" Applications have been replaced with modern Business Applications. This removes the reliance on specialists for bespoke software, and allowing the option of using hosted environments where suppliers provide this service and full disaster recovery facilities. In addition access to user groups and being involved in Application roadmaps allows improved service planning for the customer facing services.
- Most of the Council's desktop estate has moved over to cost effective thin client terminals removing local data storage and moving to central data storage which allows more robust, efficient and cost effective protection of data. This protection is provided through centrally managed backups, and offsite replication of data.
- Moving to thin client allows the Council to adopt the modern approach of "Desktop as a Service" (DaaS) to deliver Officers desktop environment using a Citrix solution (a market leader in this field), allowing the centralisation of desktop management, more efficient deployment and updating of Business Application software for Officers and improved protection of Officers data.
- Secure remote access solution has been updated and expanded to allow more flexible and agile working.
- In the data centre there have been several iterations of Server and Storage virtualisation, again providing the opportunities for more cost effective and efficient working practices. Using server and

virtualisation we can reduce the physical foot print of hardware, allow duplication of hardware offsite and allow the virtual server and storage to be replicated offsite. Recent advancements in technology has given the Council the opportunity to update this environment further, so that much more automation of business continuity can be achieved. We are currently working with two London Borough Authorities to help us implement this new technology. Design and hardware provision has already been carried out and the work to complete this is targeted for March 2015.

- Members of the ICT team are undertaking ITIL (Information Technology Infrastructure Library) training. ITIL is an internationally accepted and accredited as a best practice framework for IT Service Management (ITSM). This ensures that knowledge of ICT Resilience and Business Continuity becomes part of the process not an add-on.
- The aforementioned improvements are part of an overarching strategy to position the Council so that it can take advantage of emerging and maturing cloud services, whether this be private, community or commercial. In doing so the facilitation of Business Continuity and Disaster Recovery is embedded in the nature of the service provision.

#### **4. Major Incident – May 2014**

- 4.1 During May of this year the Council was affected by a major incident which caused disruption to many of the IT systems. The issue was caused by an extremely large power surge which entered the Council's data centre damaging Uninterruptable Power Supplies (UPS) ceasing power provision to key parts of the IT technical service.
- 4.2 After systems were restored and UPS systems were replaced the current power service to the data centre was reviewed. Inline power surge protectors were installed onto the Councils electricity supply to mitigate against any further power surge incidents.
- 4.3 Further work identified the need to replace some of the under floor network cabling using an overhead cable management system, which also improved circulation from the under floor air conditioning system. After this has been completed the power feeds to critical IT systems will be re-configured to ensure that dual feeds from separate powers feeds are in place. All this work is planned to be completed by January 2015.

- 4.4 In addition expert external IT advice was sort to review the suitability of the current IT infrastructure, comment on short and medium term plans and make recommendations to help improve the robustness of current services.
- 4.5 The results of this external advice following consultation with ICT Officers included the following:
- Continuing with the current approaches of modern cloud technologies.
  - Simplify and automate as much of the Disaster Recovery provision, subject to prioritisation, as possible.
  - Identify suitable partners to share disaster recovery services. This reduces the cost of such provision as well as supporting best practice.
  - Embed Business Continuity arrangements as part of future infrastructure and business applications developments. (This has started with the ITIL training referred to in section 3.3 of this report).
  - Hold regular meetings with Heads of Service to review Business Continuity arrangements.
  - Establish a regular “Business Continuity Report” to be received and considered by CLB on a quarterly basis.

## **5. Issue, Options and Analysis of Options**

- 5.1 To embrace the “New Ways of Working”; allow the Council to provide high performing services and ensure operational continuity, we must ensure that robust and dependable information technology underpins the way we work. Concerns centring on the availability and access to information need to be removed so that business services can operate on their terms rather than technology dictating how this can be achieved.
- 5.2 The approaches that are set out in Section 3.3 of this report have been chosen to simply the complex provision of disaster recovery and business continuity services. By grouping areas of service provision into technical segments we can replicate these technical segments off site at our

chosen second data centre, with suitable local authority partners or commercial organisations.

- 5.3 In addition suitable partners will be investigated to share disaster recovery services; appropriate technical and business application services will be commissioned, and partnerships will be developed with local authority and commercial IT service providers, to allow a cost effective approach for providing flexible IT resources which can “burst” up and down when required. In addition “Smart Sourcing” will be considered to help fill potential gaps – for example the Council’s firewall management is full-filled using a security specialist with extensive local and central government knowledge.
- 5.4 A high level project plan has been developed to continue to progress work to aid manage workloads and resources to support the delivery and implementation of this vital work. This is not isolated to business continuity but dove tailed into a works programme so that work is not duplicated and remains focused.

## **6. Reasons for Recommendation**

- 6.1 To enable the Council to deliver robust, dependable, effective and efficient ICT services.

## **7. Consultation**

- 7.1 No consultation required.

## **8. References to Corporate Plan**

- 8.1 Delivering an effective and efficient ICT service will help meet the Modern Council key priority.

## **9. Implications**

### **Financial Implications**

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- 9.1 There are no direct financial implications arising from this report, other than development and training costs that are met from within existing budgets.

**Legal Implications**

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- 9.2 This report demonstrates that the Audit and Scrutiny Committee is conducting its work programme under the Local Authorities (Committee System) (England) Regulations 2012 to 'review or scrutinise decisions made, or other actions taken, in connection with the discharge of any functions of the authority'.

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

- 9.3 None

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

11. **Appendices to this report**

- None

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