	Performance and Contract Management Committee **15 November 2016**
Title	**IT Update**
Report of	Director of Resources
Wards	All
Status	Public
Urgent	No
Key	No
Enclosures	None
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Summary

2016 has been a particularly challenging year for IT. The failure of the Library Management System in March, combined with limited assurance internal audit reports relating to IT Disaster Recovery and IT Change Management in April (with follow-up limited assurance ratings given in July) mean that scrutiny continues in this area.

This report therefore provides an update on remedial action that has been taking place with Disaster Recovery, the assurance activity of systems commissioned by the council, and service improvement plans overall.

Recommendations

1. **That the Committee notes and comments on the improvements that have taken place in the IT service.**

1. WHY THIS REPORT IS NEEDED

Background

1.1 IT was part of the outsourcing of services in the CSG contract initiated in September 2013. In terms of IT, the contract was established to 'modernise the Council's IT infrastructure (network, servers, telephony) and service systems (finance, HR, procurement etc.) so that they are more reliable and so that they support the Council in making further improvements in productivity (including, but not limited to, accommodation savings and further supply chain savings)'[1].

1.2 This year has been particularly challenging for IT. The rapid turnover of IT Directors in 2015/16 (with 4 IT Directors within a year) created a number of difficulties. In addition, there were a number of incidents including the failure of the Library Management System in March combined with limited assurance internal audit reports relating to IT Disaster Recovery and IT Change Management in April which means that scrutiny continues in this area. This report therefore provides an update on remedial actions that have been taking place in these areas, and service improvement plans overall.

IT Assurance

1.3 Following the failure of the library management system, the Council commissioned CSG IT to carry out a system by system assessment of the applications held within the IT estate to provide the Council with assurance on the continued availability of systems. The results of this proactive review were positive and primarily confirmed that all Council systems benefit from a disaster recovery service and are backed up. The improvements collected provided a framework for the service improvement plans within CSG IT that have been carried out throughout the year. This evaluation looked at 90 systems of which 13 are provided by third parties. This gave the results set out below (measured against industry best practice principles).

Robustness and resilience

This looked at the robustness and resilience of systems in place (such as the age of infrastructure and whether software has a valid support agreement in place). The results were that:

- 14 systems were highlighted as Amber in this category due to the server operating systems requiring planned upgrades. 12 of these have been completed, 1 system has since been decommissioned and the remaining system is part of a wider project that will upgrade before the end of the March 2017
- 4 systems were originally highlighted as Red in this category. 1 system has had new hardware and replication changing this to Green. One has been decommissioned and the other two are been held for archival purposes only with their data securely held in another system

[1] Performance and Contract Management Committee, 'Performance of the Customer Support Group (CSG): Appendix 1, Overview, 7 January 2016.

Monitoring and System Management
This involved checking that active monitoring takes place on key systems and appropriate controls are in place. Following this check, additional monitoring solutions have been implemented along with automated alerting redirected to a team mailbox which is displayed in the NLBP Oak Room (where the IT service team is based).

Disaster Recovery
This involved checking that all services are connected to a disaster recovery service. This confirmed that all systems are connected to a disaster recovery service, validated through the recent audits in 2016,

Internal Audit: IT Disaster Recovery (ITDR)

Findings

1.4 The first ITDR audit took place towards the end of 2015 with the results presented at Audit Committee in April 2016. The results of this highlighted that suitable disaster recovery documentation was not readily available that would have enabled the IT teams to restore the Council's IT services in the event of a disaster event. It also found that appropriate infrastructure in the secondary data centre location was not available.

1.5 A follow-up audit in July 2016 demonstrated that, while good progress had been made in the areas of governance (appropriate ITDR staff attending the council's quarterly business continuity forum); responsibility for reviewing the scope of IT services and identifying the end to end IT service dependencies, further work was required in the review of the DR contractual bandings for recovery (see para 1.8 for further detail); technical recovery practices; and DR testing.

1.6 The re-audit of ITDR in October 2016 has been given a Reasonable Assurance rating, recognising good practice in areas including the development of comprehensive ITDR recovery plans and supporting documentation along with good governance arrangements. The Reasonable Assurance rating shows that significant progress has been made since the last update in preparing the ITDR capability for the council in preparation to transfer it to Business as Usual (BAU) operation. The Audit report confirmed that "While a small proportion of work is required to conclude this process, the current technical capability, planning and project testing demonstrate that in the event of a disaster there is a high probability that services can be recovered within their designed capability"[2].

ITDR contractual issue

[2] Audit Committee, 3 November 2016, Internal Audit Exception Recommendations Report and Progress Report up to 30 September 2016

1.7 The audits of ITDR have highlighted a contractual issue regarding the provision of DR services for silver and bronze systems. Under the CSG contract, systems are classified as Platinum, Gold, Silver and Bronze, with Platinum / Gold and Silver / Bronze having the same classifications for DR purposes. The contract[3] states that:

- **"Platinum and Gold systems** – in the event of a major infrastructure of DC [Data Centre] failure, those systems not hosted at the failover site will be recovered at the failover site using production infrastructure (and taking down silver/bronze systems if necessary). This will enable us to deliver an RTO[4] of 2 hours. SAN[5] replication for these systems will be configured to deliver an RPO[6] of < 30 minutes.
- **Silver and Bronze systems** will be recovered on hardware shipped to the failover site, based on a Ship to Site service provided on a contract designed to deliver an RTO of 48 hours. SAN replication for these systems will be configured to deliver an RPO of 1 hour."

1.8 In summary, this means that Tier 1 systems should be available again within 2 hours with up to 30 minutes of lost data, while Tier 2 systems should be available again within 48 hours with up to 1 hour of lost data.

1.9 Due to the same provision for Platinum / Gold and Silver / Bronze systems, these have now been simplified to two bandings only: Tier 1 (formerly Platinum and Gold) and Tier 2 (formerly Silver and Bronze).

1.10 There is currently no issue in respect of Tier 1 (Platinum & Gold) level applications, the services most important to the Council and its residents, as these are constructed differently with data replicated almost instantaneously to a secondary failover site within milliseconds, far exceeding CSG IT's contracted recovery timescales. For the remaining, lower priority Tier 2 (Silver & Bronze applications), these are backed up daily overnight and whilst CSG IT remain confident to recover within the given 48hr time window, it is not possible to meet the 1 hour data recovery point (RPO). In order to rectify this, the council has entered into discussions with Capita. All Tier 2 system owners of systems hosted at the Capita data centre and therefore provided with DR from this site have been contacted to ascertain the impact of a changed RPO for these systems.

1.11 Of the 20 systems listed, 5 systems were noted to have an adverse impact should the RPO remain at 24 hours. Consequently, these systems have been raised to Tier 1 to benefit from enhanced DR provision.

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[3] CSG contract, IT service specification, 2.10.3 Disaster Recovery Services: IS10.03

[4] Recovery Time Objective: the time in which the system should be restored

[5] Storage Area Network: a dedicated high-speed network that interconnects and presents shared pools of storage devices to multiple servers

[6] Recovery Point Objective: the maximum targeted period in which data might be lost from an IT system due to a major incident

1.12 It was also noted that the audit highlighted that since contract commencement, CSG IT have provided a DR service for 25 either unclassified applications / additional systems installed for the primary benefit of the Council or to conduct its business without any additional charges to the Council.

1.13 Discussions have concluded, and it has been agreed that the council will receive recompense for Tier 2 systems with Capita funding the data entry of lost data up to the 24 hour limit in the event of system failure, along with Capita taking the cost of the systems which have been raised to tier 1 (as set out in para 1.11).

Members IT

1.14 Progress has been made on improving support for Members' IT needs. This work has been overseen by a separate Member-led Working Group. The creation of a Members' IT improvement plan has resulted in over 70 Member IT support issues being closed. Members' IT requirements have been discussed at length during Working Group sessions to inform the development of proposals to deliver improved IT for Members. To further increase support and visibility for Members IT, a Members' IT Handbook is in production, to provide all the relevant training material and key policies that Members might need to refer to. Additional support has also been targeted at key events that Members attend (such as Full Council meetings) and a number of additional out-of-hours surgeries have been offered. Considerable efforts have also been made to ensure that communications to Members are more accessible.

Service Improvements

1.15 While this year has been a challenging one for IT, significant progress has been made, and continues to be made, to improve the service on both a day to day level and strategically.

1.16 On a day to day level, whilst the CSG IT service has continued to meet its contractual KPI's throughout this difficult year, a comprehensive set of improvements has been rolled out behind the scenes across the IT service. Whilst work in this area continues with plans in 2017 to upgrade the wireless service, telephony, email and introduce a host of IT collaboration tools, some notable highlights so far this year include:

- Proactive monitoring of systems and dashboard reporting to key stakeholders
- Removing single points of failure from key IT operational processes
- Much improved processes for projects transitioning into live service
- Recruitment of a new Senior Leadership Team for IT
- Improvements to Change, Incident & Problem Management in line with best practice IT standards
- Transferring the IT service desk to a specialist Capita Local Government desk in Birmingham
- Improvements to asset tracking information of key Council IT equipment

- More regular contact with key Council DU's through, for example, the IT User Group, departmental IT meetings, Security Forum.

1.17 As a result of these behind the scenes improvements, a number of key IT outcomes have been delivered for the Council this year;

- Over 1800 brand new laptops & other tablet devices have been successfully rolled out
- Successful completion of a year-long comprehensive upgrade of the Council's IT network across all its sites. This provides a faster, more secure and supportable network infrastructure for the Council to operate from and an enabler for a number of future IT projects in 2017
- Rollout of 738 new Blackberry devices to Council officers and Members
- Upgrades of 197 servers to ensure continued compliance with the Government's PSN security requirements
- Passed yearly compliance for the Payment Card Industry (PCI) standards
- IT also supported the Coventry call centre who were providing extended cover for the elections hotline allowing members of the public to ask questions

1.18 Strategically, the IT Strategy was presented at the October meeting of the Policy and Resources Committee. The IT Strategy has been aligned with the council's Customer Access Strategy, Locality Strategy and Colindale Business Case and is based around the strategic themes of being:

- **Mobile and Flexible** – staff are mobile and less dependent on offices while remaining connected with their teams, systems and information;
- **Integrated and Digital** – systems are integrated enabling data to be stored, shared and consumed digitally and securely, to drive reliable, consistent and efficient processes;
- **Secure and Reliable** – a reliable and secure service that leverages existing investment, reduces duplication, and delivers what the business needs; and
- **Partnership and Sharing** – platforms are shared and accessible through a variety of channels, enabling collaboration with residents, local businesses, partners and third parties.

1.19 A third party, technical assurance partner has been contracted with to provide independent scrutiny of the technical aspects of the implementation of new systems under the strategy. This partner will also provide scrutiny of the technical aspects of the implementation of the Customer Access Strategy, along with assurance of ad-hoc technical projects requested by Delivery Units. It is good practice to proactively carry out assurance on complex or high value projects, which will help to ensure that the work carried out is resilient and meets the council's requirements. A delegated powers report (DPR) has authorised assurance of up to £164,176 to be spent over the term of the strategy (up to 2020).

2. REASONS FOR RECOMMENDATIONS

2.1 It is important that Members are able to discuss and consider work that has taken place (and is ongoing) within the IT service to overcome problems this year.

3. ALTERNATIVE OPTIONS CONSIDERED AND NOT RECOMMENDED

3.1 N/A

4. POST DECISION IMPLEMENTATION

4.1 Work will continue on implementing improvements within the council's IT service.

5. IMPLICATIONS OF DECISION

5.1 Corporate Priorities and Performance

5.1.1 Effective IT infrastructure, networks and services enables the provision of Council services and underpins the Council's Corporate Plan 2015-2020.

5.2 Resources (Finance & Value for Money, Procurement, Staffing, IT, Property, Sustainability)

5.2.1 A capital budget of £9.1m has been allocated for the implementation of the ICT Strategy. The authority to spend significant sums of this budget must be bid for through the submission of individual business cases for approval by Policy and Resources Committee.

5.3 Social Value

5.3.1 N/A.

5.4 Legal and Constitutional References

5.4.1 No specific legal issues have been identified.

5.4.2 The Council's Constitution, in Part 15 Annex A, Responsibility for Functions, states the functions of the Performance and Contract Management Committee include (amongst other responsibilities):

a) Overall responsibility for quarterly budget monitoring, including monitoring trading position and financial strategy of Council Delivery Units.
b) Monitoring of Performance against targets by Delivery Units and Support Groups including Customer Support Group; Re: the Barnet Group (Including Barnet Homes and Your Choice Barnet); HB Public Law; NSL (Parking Contractor); Adults and Communities; Family Services; Education and Skills; Street Scene; Public Health; Commissioning Group; ad Assurance.
c) Receive and Scrutinise contract variations and change requests in respect of external delivery units.
d) To make recommendations to Policy and Resources and Theme Committees on relevant policy and commissioning implications arising from the scrutiny of performance of Delivery Units and External Providers.
e) Specific responsibility for the following function within the Council:
    a. Risk Management

b. Treasury Management Performance

f) Note the Annual Report of the Barnet Group Ltd

5.5 Risk Management

5.5.1 N/A

5.6 Equalities and Diversity

5.6.1 The Public Sector Equalities Duty under section 149(1) of the Equalities Act 2010, requires the Authority, in the exercise of its functions to, have regard to the need to advance equality of opportunity between persons, who share relevant protected characteristics and persons who do not share them.

5.6.2 Having due regards means the need to (a) remove or minimise disadvantage suffered by persons who share relevant protected characteristics that are connected to those characteristics (b) take steps to meet the needs of persons who share relevant protected characteristics that are different from the needs of people who do not share (c) encourage persons who share relevant protected characteristics to participate in public life in any other activity in which participation by such person's is disproportionately low.

5.6.3 The relevant protected characteristics area age, disability, gender reassignment, pregnancy and maternity, race, religion or beliefs, sex and sexual orientation.

5.6.4 At this stage there are no equality impacts which need to be raised or addressed.

5.7 Consultation and Engagement

5.7.1 There is no intention to undertake any consultation at this time,

5.8 Insight

5.8.1 No specific insight has been undertaken in order to inform this decision.

6 BACKGROUND PAPERS

6.1 Performance and Contract Management Committee, 31 May 2016, IT Operations http://barnet.moderngov.co.uk/documents/s32223/IT%20Operations.pdf

6.2 Audit Committee, 19 April 2016, Internal Audit Exception Recommendations Report and Progress Report up to 31 March 2016 http://barnet.moderngov.co.uk/ieListDocuments.aspx?CId=144&MId=8416&Ver=4

6.3 Audit Committee, 28 July 2016, Internal Audit Exception Recommendations Report and Progress Report up to 30 June 2016 http://barnet.moderngov.co.uk/documents/s33716/Internal%20Audit%20Exception%20Recommendations%20Report%20and%20Progress%20Report%20up%20to%2030%20June%202016.pdf

6.4 Audit Committee, 3 November 2016, Internal Audit Exception Recommendations Report and Progress Report up to 30 September 2016 http://barnet.moderngov.co.uk/ieListDocuments.aspx?CId=144&MId=8827&Ver=4

6.5 Policy and Resources Committee, 5 October 2016, ICT Strategy https://barnet.moderngov.co.uk/ieListDocuments.aspx?CId=692&MId=8730&Ver=4