REPORT OF THE SERVICE DIRECTOR, ICT

ICT PROGRAMMES AND PERFORMANCE QUARTER 4 2017-18

Purpose of the Report

1. To provide the Improvement & Change Sub-Committee with the 4th quarter progress update on key projects and performance measures for ICT Services and to outline the major planned activities over the next 6 month period.

Information and Advice

Programmes Update

2. The ICT Strategy 2017-20 identifies the four ICT strategic themes supporting business transformation across the County Council. These themes shape much of the activity and priorities within ICT Services (covered in the progress and planning sections of the report - paragraphs 3 and 4). The four key themes are:

   • **Smarter working**: *Technology supporting a workforce able to work flexibly, where and when it best suits them, their customers and service users and managed by results*

   • **Health and social care technology integration**: *Improving the health and wellbeing of the local population through technology enabled integrated health and social care services*

   • **Business intelligence**: *Technology providing robust, timely and accessible information that drives informed decision making, service commissioning and business transformation*

   • **Cloud services** (*off-premise data centres*): *A flexible, scalable and secure cloud infrastructure where service cost is tied to applications and usage and user experience is managed*

3. Progress has been made across the priority ICT projects over the last quarter and a summary of progress is as follows:

i. A programme of work is ongoing to plan, scope and deliver the transition of ICT services away from the County Hall data centre to *cloud* based solutions by the end of 2019. The procurement and contractual arrangements have been completed and Microsoft, our partners for this piece of work, are on site and work is underway. The planned composition of the cloud service model is as follows:

Model	Description
Software as a Service (SaaS)	This model enables an organisation to rent an application and its underlying infrastructure. This is often chargeable on a per user per month basis. The first solution delivered through this model will be Microsoft Office 365. This is Microsoft's SaaS solution for the delivery of their office productivity software e.g. Outlook (e-mail, calendar, contacts), Word, Excel, PowerPoint, SharePoint (team and project spaces), OneNote, OneDrive (file and folder storage and sharing), Skype for Business etc.
Infrastructure as a Service public cloud (IaaS)	Microsoft will provide and support the server infrastructure that the software, databases and data are hosted on using their Azure platform. This is delivered through their UK data centres in the form of *virtualised* servers (physical servers that are segmented to run multiple systems) and accessed through secure network connections. The County Council retains responsibility for the provision and support of the systems.
Co-location model	The County Council will retain a small amount of infrastructure and some systems in the Node 4 data centre. This is because not all technologies currently lend themselves to the above 2 models.

ii. The Smarter Working Programme is providing mobile technology over the next 3 years to replace much of the desktop computer estate. This will assist many more staff to be able to work more flexibly and allow for better use of the property assets. Following the successful repurposing of accommodation and deployment of new technology at Lawn View House, work has now begun in rolling out new technology (tablet/laptop, monitors, docking station solution) to support the restacking at County Hall.

iii. A new managed print service contract has been awarded to SCC (M2) and Inepro. The Docupro software which runs on the printers will be upgraded from version 4 to 7. The current networked estate of 350 Konica devices will be replaced with new Ricoh devices

iv. The new *public* Wi-Fi solution, provided through O2, which has been installed as a replacement for the *guest* Wi-Fi solution has now been rolled out to 20 sites including County Hall. Further deployment is being planned and impact on the network continues to be monitored.

v. The new "device.wifi" *corporate* Wi-Fi solution (for staff and partners) has been piloted and is now being rolled out. This replaces the previous "staff" Wi-Fi" access arrangement providing greater security and also facilitating a flexible, shared working environment with other organisations adopting the solution. It enables users to auto-connect to their own organisation from each other's sites. This solution has been adopted by Connected Nottinghamshire for a shared wireless network, and is initially being deployed in the City and County Councils.

vi. The project to transition mobile voice and data services from Vodafone to EE is under way. Tablet devices are being migrated first and are expected to be completed by the end of June. It is anticipated that savings of £300k per annum will be delivered, once the transition from Vodafone has been completed.

vii. A full technical review of the technology infrastructure supporting the Business Intelligence Hub has been completed and actions arising from it are under way.

viii. Sherwood Forest Hospital Trust has recently been nominated for the Health Service Journal Awards in relation to the interoperability work we have undertaken with them at Kings Mill Hospital. This follows the shortlisting of the innovative work recently reported to this sub-committee on health and social care technology integration for the 2018 Local Government Chronicle Awards.

ix. The next phase of workflow automation with King's Mill Hospital, which includes automatic assessment notices, discharges and shared health data, has been scoped and initiated.

x. Work is ongoing on the renewal of the contracts with Inspire and VIA and is expected to be concluded shortly.

xi. Serious security flaws (known as Meltdown and Spectre) in processors designed by Intel, AMD and ARM were identified for desktop, laptop, tablet and smartphone devices. The fixes have been deployed to all network connected devices

4. Over the next 6 months the major focus of activity will include the following:

i. Delivery of the Cloud Programme will begin.

ii. As part of the Smarter Working Programme, phase 1 of the delivery of mobile devices at County Hall will be completed. A number of older desktop computers at other sites will also be replaced as part of an ongoing ICT equipment refresh programme.

iii. The Smarter Working delivery plan for 2018-19 will be agreed.

iv. The Staff Wi-Fi solution (which has been replaced by the Device Wi-Fi solution for staff and partners) will be decommissioned

v. Following Microsoft's announcement that it will no longer focus on developing its Windows 10 operating system for smartphones, a technology roadmap and supporting plans have been developed to define the future direction for smartphones. The first phase will be to replace Windows 8.1 smartphones that are not supported beyond July 2019

vi. The next phase of the Corporate Performance Reporting Project for the further development of the business intelligence hub will be scoped and initiated.

vii. The automatic assessment notices which are part of the next phase of workflow automation with King's Mill Hospital will be delivered. Health and Social Care integration activities with Bassetlaw and NUH will be scoped and initiated

viii. Options for the better use of technology will be explored and reviewed ahead of the next tender for home care services in 2018.

ix. Some planning activity will be undertaken in readiness for introducing the Microsoft Windows 10 operating system on computers.

x. The project to transition mobile voice and data services to EE will be completed.

xi. New ICT contracts with Inspire and VIA will be signed off, as the initial two year contracts established when the ASDMs were created have now expired.

Performance Update

5. To provide a balanced assessment of performance, ICT Services measures four groups of indicators that cover business activities, customers, staff and finance. Performance for the 4th quarter of 2017-18 is attached as an Appendix.

Business Activity Indicator

6. The business activity indicators measure some of the key day to day operational performance areas, with the two most significant being systems availability and incident resolution. The focus is to ensure that business critical systems are operational during business hours and that any incidents are resolved speedily and within service level agreement (SLA). Systems availability continues to remain at high levels with aggregate availability of 99.88% in the quarter.

7. The speed with which ICT Services and suppliers respond to incidents improved over 2016-17 to bring performance up to the target level. Performance against this KPI has levelled out to just below the target of 92%. A Continual Service Improvement Plan is in place to identify areas where further improvements are required.

8. The County Council is increasingly reliant on its ICT provision and so disruptions to services need to be avoided wherever possible. During this period some Nottinghamshire schools have had a degradation in the delivery of their broadband service. This was identified as a system fault within the Virgin Media Business managed network and was resolved by them as part of an emergency change procedure. However, periodically performance issue still present themselves on the schools network and these are currently under investigation by VMB. An issue with Lync supplier Daisy's infrastructure caused some Lync telephony issues during this period. Although to some extent this is outside of our control further mitigation has been implemented to reduce the risk of recurrence.

9. The business activity indicators also show two project performance indicators that are used by CIPFA (Chartered Institute of Public Finance and Accountancy). The project delivery index is used to measure conformance to good project management standards e.g. adoption of PRINCE 2 methodology, business case produced, delivery to timelines, business benefits achieved etc. Performance against this indicator remains consistently good since we reorganised the service and incorporated dedicated programme and project management resources. The second indicator is related to delivery of milestones, and measures the overall percentage of milestones delivered by the planned timelines. Progress has been very good in the period, see paragraph 3, with 86% achieved in the quarter.

Customer Indicator

10. The access channel into ICT Services is the Service Desk which receives and handles incidents, service requests and enquiries. The efficiency and effectiveness of this function is crucial for the user perception of the whole range of services provided. Daily customer satisfaction feedback is collected from corporate and school users of the Service Desk and is being measured against a target score of 4.5 (score 1-poor, 5-excellent). The feedback from users' remains very positive and above target. A new incident reporting system is being used in ICT Services and will enable easier reporting and tracking as these features are introduced.

Staff Indicator

11. The average number of sick days per staff member in ICT Services is above the corporate annual target level with higher than normal levels of sickness due to colds and flu over this quarter. Training activity for ICT Services staff is crucial to ensuring that the relevant and required skills are available, with training delivery continuing to be above the target level as we introduce and transition to new technologies.

Financial Indicator

12. Revenue spending for the year was in line with the overall annual budget plans and planned financial savings of £479k were also delivered following the recent staffing restructure. The profile of capital spend was in line with budgets apart from the Cloud Services Programme. Now that contracts have been signed, this will be reprofiled for 2018-19 and 2019-20.

13. ICT Services also continues to provide very favourable cost comparisons with other public sector bodies with the cost of ICT support within the lowest cost quartile of the current annual CIPFA benchmarking.

Reason for Recommendation

14. To raise awareness of progress on the key ICT programmes and performance indicators for 2017-18.

Statutory and Policy Implications

15. This report has been compiled after consideration of implications in respect of crime and disorder, data protection and information governance, finance, human resources, human rights, the NHS Constitution (public health services), the public sector equality duty, safeguarding of children and adults at risk, service users, smarter working, sustainability and the environment and where such implications are material they are described below. Appropriate consultation has been undertaken and advice sought on these issues as required.

RECOMMENDATION

That members consider the opportunities arising from this progress report and agree to receive a further report for the next quarter.

Sue Milburn
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For any enquiries about this report please contact: Ivor Nicholson on 0115 9773196

Constitutional Comments: (GR 29/05/2018)

Pursuant to the Nottinghamshire County Council's constitution the Improvement & Change Sub Committee has the delegated authority to receive and approve the recommendations contained within this report.

Financial Comments: (CSB 30/05/18)

Financial performance is outlined in paragraphs 12 and 13. ICT Services continues to monitor against key performance indicators to improve value for money.

Background Papers

None

Electoral Division(s) and Member(s) Affected

All

ICT Services Overall Performance: Quarter 4 2017-18

Key symbols table:

Status	Indicators	Trend	Base this on change from same period last year
🛑	Below target by more than 10%	⬆	Improving trend
⚠	Below target by up to 10%	⬇	Deteriorating trend
✅	On or above target	▬	No change
⚪	No reported data or no target		

Business Activity Indicator	**Performance 2017-18**							**Comments**
	Q1 Actual	Q2 Actual	Q3 Actual	Q4 Actual	Q4 Target	Status	Trend	
Average availability to users of NCC's business critical services during business hours	99.86%	99.94%	99.95%	99.88%	99.8%	✅	▬	There are 96 services identified as Business Critical to the County Council e.g. e-mail, internet, Mosaic, BMS, Capita ONE etc. Contributory factors to this high level of availability are the investment in the ICT infrastructure (such as the network, servers, cabling and data centres), a proactive approach to infrastructure alerts and monitoring (taking pre-emptive action where necessary), plus the rapid response of technical teams should issues occur.
% of Mobile devices within the ICT estate (a mobile device is classed as a Laptop or Tablet PC. Smartphones are excluded from this indicator)	42%	44%	41%	45%	44%	✅	⬆	At the end of Q4 there were 8631 devices connected to the ICT network. Laptop and tablet computer devices accounted for 45%. With the advent of the Smarter Working Programme many desktop computers and small form factor tablets are being replaced with tablets/laptops.

Business Activity Indicator	Performance 2017-18							Comments
	Q1 Actual	Q2 Actual	Q3 Actual	Q4 Actual	Q4 Target	Status	Trend	
% Incidents resolved within agreed service levels	91.5%	88.2%	91.9%	91.2%	92%	⚠️	⬇️	This indicator assesses the performance of the ICT function in restoring service and responding to incidents within our Service Level Agreement (SLA). In this quarter there were 7,683 incidents reported (7,824 last quarter). Performance is now almost back to the level of the SLA.
% of ICT changes successfully completed	99%	98.4%	99%	99%	98%	✅	➖	The ICT change management process aims to ensure that upgrades and new services are implemented without any negative impact on service provision and ensure that all changes to business critical services have been comprehensively planned, tested and authorised before being carried out. In this quarter there were 286 changes of which 3 failed. One of these was a simple redirect for SharePoint not working as expected, the other two for Adobe software where issues regarding user access rights caused unexpected problems. All of these have now been resolved, referring them to 3rd parties where needed.
Compliance to CIPFA project delivery index	9	8.7	9	8.2	8.0	✅	⬇️	This indicator measures the effectiveness of ICT project management and delivery by assessing approved projects completed in the quarter against a set of 9 defined criteria established by CIPFA and based around PRINCE 2. Five projects were closed in this quarter.

Business Activity Indicator	Performance 2017-18							Comments
	Q1 Actual	Q2 Actual	Q3 Actual	Q4 Actual	Q4 Target	Status	Trend	
% of project milestones delivered	80%	81%	89%	86%	85%	✅	⬇️	Each project and priority activity incorporates a series of milestones (both for ICT Services and the business) that are the basis for assessing progress. These can be updated by Project Boards to reflect revisions to scope, priorities etc. Progress has been made against all priorities as outlined in paragraph 3 of the report. In this period there have been some delays associated with the procurement of cloud services but these have now been resolved.

Customer Indicator	Performance 2017-18							Comments
	Q1 Actual	Q2 Actual	Q3 Actual	Q4 Actual	Q4 Target	Status	Trend	
Customer satisfaction score: Corporate / School users	4.3/4.9	4.6/4.9	4.3/4.6	4.7/4.5	4.5	✅	⬆️	The access channel into ICT Services is the Service Desk which receives and handles the incidents, service requests and enquiries. The efficiency and effectiveness of this function is crucial for the user perception of the whole range of services provided. ICT Services collects information regarding customer's satisfaction (score 1-poor, 5-excellent) of the ICT incident management process for both corporate and school users (weekly sample sizes are approximately 30 corporate users and 20 school users).

Customer Indicator	Performance 2017-18					Status	Trend	Comments
	Q1 Actual	Q2 Actual	Q3 Actual	Q4 Actual	Q4 Target			
Service Desk 1st call resolution	46%	58%	59%	61%	50%	✅	⬆	First call resolution measures the effectiveness of the Service Desk at first point of call. The 50% target of incidents resolved at 1st point of call is a balance of being able to manage the call volumes through the desk and maintaining a high percentage success rate within the allocated call period (6 minutes).
Average Service Desk call duration	5.41mins	5.45mins	5.4mins	6.04mins	6 mins	✅	⬇	In order to manage call volumes and achieve a lower call abandonment rate, a target of 6 minutes (ICT industry practice) is allocated to each call to the first line Service Desk.
% dropped calls on Service Desk	8.72%	5.1%	7%	7.47%	10%	✅	⬇	This measures the proportion of calls unanswered by the Service Desk (including calls that are terminated by the user having heard recorded incident updates). Significant improvements have been made throughout the last year in call handling management. This is reflected in a more ambitious target for 2017/18 (from 12% to 10%).

Staff Indicator	Performance 2017-18					Status	Trend	Comments
	Q1 Actual	Q2 Actual	Q3 Actual	Q4 Actual	Q4 Target			
Average Number of sick days per staff member	1.27	3.01	5.72	8.22	7.0	🔴	⬇	27% of the sickness levels can be attributed to colds and stomach bugs.
Average number of professional training days per member of staff	1.06	2.08	3.6	4.96	3.0	✅	⬆	The annual target is 3 days per member of staff and based on completed timesheets. Training levels are above target. The approach

| | | | | | | | | incorporates attending training courses, gaining internal knowledge transfer/coaching across ICT and 'CBT' for people studying/exams for various technology disciplines. |

Financial Indicator	Performance 2017-18				Comments
	Actual	Target	Status	Trend	
Expenditure against revenue	100%	100%	✅	▬	Planned budget reductions of £479k have been delivered in 2017-18. Spending for 2017-18 is in line with budget plans.
Expenditure against capital	100%	100%	✅	▬	Capital Spending for the Smarter Working Programme, Microsoft Licensing and infrastructure upgrades were in line with plans. Capital spending on the Cloud Services Programme has been reprofiled into 2018-19 and the Capital Budget was adjusted in line with this.
Cost of ICT support per user	£223	£217	✅	▬	Our current cost of £223 per user puts the County Council at the lowest cost quartile of CIPFA 2015 benchmarking. The target of £217 is based on remaining at the lowest cost quartile.
Cost of ICT support per workstation	£190	£243	✅	▬	Our current cost of £190 per workstation puts the County Council in the lowest cost quartile of CIPFA 2015 benchmarking. The target of £243 is based on remaining within the lowest cost quartile.