Management Report to Audit Committee on Information Technology

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1.0   Summary

This report will provide updates on the following:

1.1   Management structure and resources of ICT
1.2   Service Improvement and Compliance
1.3   DR/BC Project
1.4   Future developments of ICT Function

1.5   Since the last report in September 2016 Shropshire Council ICT has continued to undergo significant change and improvement.

2.0   Recommendations

2.1   The recommendations are that:

2.1.1   The Committee notes the significant progress in the improvement of Shropshire IT function. In particular that a number of these improvements are now being validated through improved audit report outcomes.

3.0   Background

3.1   The content of this report is very different to the reports that have been presented to the committee over recent years, from the content presented here members of the committee should see clear evidence of improvement, and gain assurance of increased resilience in the Shropshire Council IT function. Notwithstanding that at the Council Meeting in July 2017 the opinion of the Head of Audit was again qualified in respect to IT, members of the committee are asked to bear in mind that this judgement relates to the period April 2016 to March 2017, making the improvements detailed in this report even more striking.

3.2   As well as driving change within the business as usual aspects of the ICT function, IT have now assumed a much greater role in the delivery of the technological requirements of our Digital Transformation Programme. The Infrastructure and Architecture Project now underpins the other major projects in the overall

programme. The team comprises of existing members of staff who will work on the programme to ensure our IT infrastructure has the capability and the capacity to support the new technologies. This will mean that there is knowledge transfer throughout the project as well as ensuring that future IT skill requirements are available internally to support the organisation as it transforms.

3.3 An overview of these changes and service improvements are detailed in this report together with improvements that are scheduled to be implemented.

4.0 Structure and Resources

4.1 ICT Management

4.1.2 The September 2016 report detailed management changes with the IT function namely '*Michele Leith was asked to provide strategic management capacity within ICT and act as Head of Service for ICT Services, Customer Services, Digital and Print Services, and Communications whilst continuing to fulfil the Head of Service role for Human Resources and Development. Paul Voogt who is programme manager for the Digital Transformation Programme has been asked to provide some technical support for the management function and Karen Davis continues to fulfil the role of ICT Manager on an Interim basis.*'

4.1.3 Michele Leith is still responsible for the leadership and strategic management of IT, earlier this year and after careful assessment of the capacity of the function to meet the challenges of the future, further changes were made to the management structure. Paul Voogt moved away from operational matters to concentrate on the DTP and a new post Technology and Communications Service Manager was created, Andrew Boxall was appointed to this post in April 2017.

4.1.4 A number of other operational changes have been put in place to improve the internal management of ICT, including adopting the internationally recognised ICT management methodology of ITIL. ITIL (formerly an acronym for Information Technology Information Library is now a recognised brand in itself). ITIL is a framework and methodology for managing an IT department which is recognised as best practice. The introduction of these standards was referenced in the previous report, and it is pleasing to confirm that we have now introduced the use of ITIL. This has seen over 95% of the department trained in ITIL methodology and many of its processes and procedures have been incorporated into IT functions. This allows us to better plan, implement and measure our effectiveness. More details are available in Appendix 1

5.0 Service Improvement and Compliance

5.1 A significant amount of hard work and commitment by the teams has begun to show dividend. We are pleased to report that performance in audits is significantly improved with a far higher percentage of audits outcomes being judged as reasonable or better. The table below shows the latest position is respect of audit outcomes.

5.2

Audit Assurance Level by Year
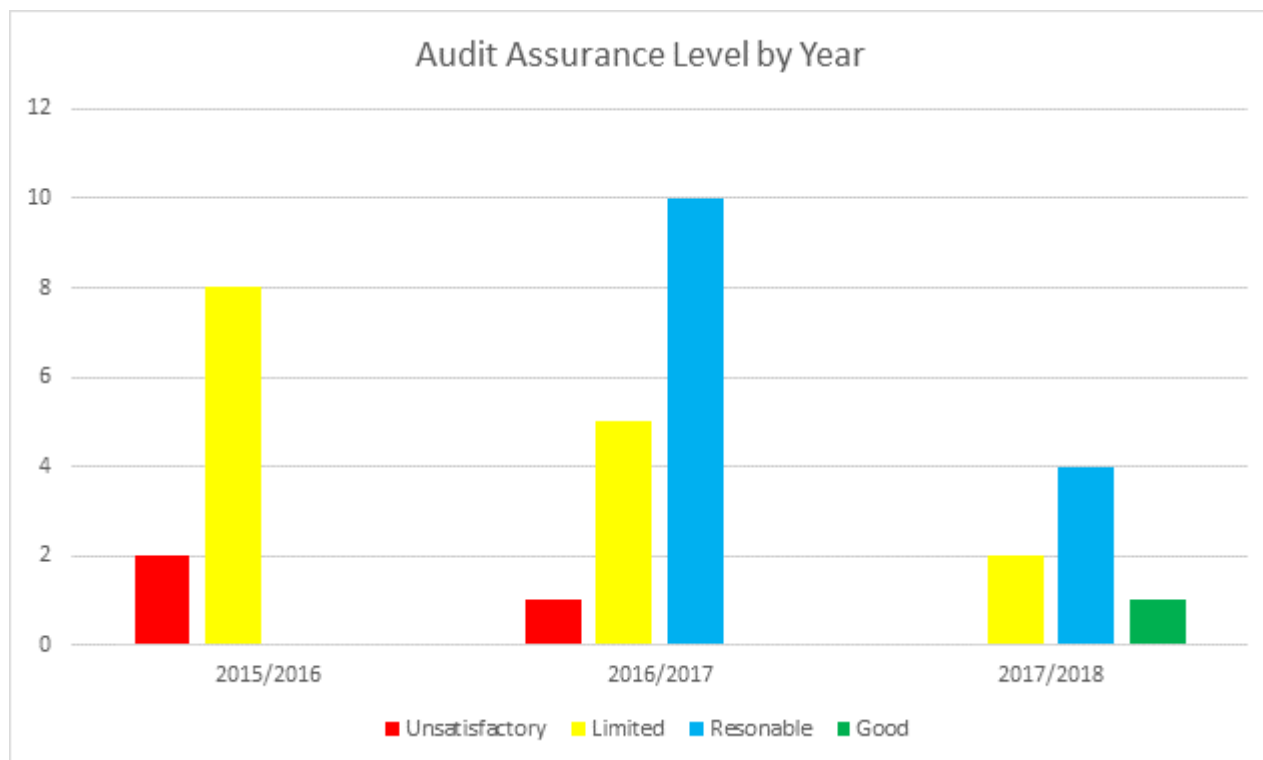
5.3   Notable achievements

- Review of ICT Security Policy completed by ICT, Information Governance and Audit.
- Hardware Replacement Audit has been Unsatisfactory for 15/16 and 16/17. 17/18 Audit has achieved a reasonable rating
- Hardware replacement policy has been documented and agreed - fundamental requirement
- Remote Support Usage standard introduced - addresses 3 significant requirements
- General process documentation in the department has been developed and enhanced – significant/requires attention
- Policies/standards which cover anti-virus provision, user access, backups and security/firewalls have been documented – significant requirements
- Formalised system administration responsibilities for key ICT systems (such as Active Directory, SCCM, Skype for Business and Office365) have been added to relevant officers Job Descriptions – significant requirements
- Documented Change Management process

5.4   BT Wide Area Network (WAN)

The change of provision for our WAN to BT in 2013 had proved problematic with unexpected delays and unforeseen costs. There was an opportunity for the final two years of the contract to renegotiate, this also proved difficult. However, following the escalation of complaint to national level the relationship with BT is much better. This has been achieved through a series of meetings include a number with Frank Malcher, BT's Director of Customer Services. The outcome of this has been positive; we had already negotiated a better price for years 4 and 5, recouping approximately half of the additional costs for year 1-3. However, BT are now keen

to work in partnership with us on community projects, like improving internet security and safety awareness in our schools and IT access in food banks.

5.5   Internet Security Policy

A new up-to-date internet security policy has been drafted. Achieving this is an example of much closer working between areas of the council. The internet security policy is owned and produced by Information Governance; the plan was to update the policy in time for the new GDPR (Data Protection) regulations, which come into force in May 2018. This delay was having significant implications for service delivery in IT and for the council as a whole. So IT supported and Information Governance to update the document for current use, albeit a time limited policy until the new regulations come into force when the document will be revised.

6.0   Disaster Recovery and Business Continuity Project

6.1   The project was fully initiated in November 2016, the Project Board chaired by Michele Leith meets monthly, progress against the project plan is monitored, details can be seen at Appendix 2

6.2   As at the August 2017 Board Meeting the project was slightly ahead of schedule and is currently 60% complete.

6.3   The Service Mapping activities are now complete, which means that in a DR/BC context IT now has a clear picture of the system interdependencies and server capacity for each system in priority order for recovery (day 1,day 3, day 7 recovery). This is linked to risk calendar as systems priorities can change on a given day, month in the year.

6.4   Clarity around roles and responsibilities within the DR/BC plan have been established in particular the roles/responsibilities for ICT management.   The process contains required actions to ensure proper control and management of situations that trigger the use of the DR or BC plan.

6.5   A test plan is now in place and the project team is starting work with service areas to ensure their capacity/resilience in a DR/BC situation. This will also ensure a clear shared understanding of role, responsibilities and expectations should a DR/BC situation be triggered.

6.6   The VMWare licences (VMWare is the virtual infrastructure on which our systems operate) have been reviewed and upgraded. This upgrade enables us to monitor activity on servers, helping to ensure the effectiveness of the system, and identify any risk to service. Despite the additional cost of this upgrade, we have been able to save £94,418.85 over 3 years on licences.

6.7   The data centre at Nuneaton is up and running, with upgraded server capacity. The infrastructure upgrade migrations are taking place. The test environment is up and running which means that we can simulate what will happen if a total failover to Nuneaton is required. The full test plan is complete and live testing schedules prepared. A DR/BC exercise planned for later this year will use the test environment

to failover all systems. Therefore, the status of IT infrastructure and systems will be fed into the exercise in real time. This is a precursor to a live test!!!!!

7.0   Future Developments

7.1   Change management

An organisation's IT Infrastructure is like a structure made of dominos – if one falls over it can have a knock on effect. Much like a dominos structure, if the right methodology is followed, part of the structure can be worked upon without impacting the rest of the environment. This may be a design change, such as lifting out a section of a domino trail to add a replacement or an upgrade – but with the right procedures in place, we can avoid collapse.

The objectives of change management support our central IT department to manage our IT infrastructure. This is important at any time, but Digital Transformation will effectively deliver a clean slate with our infrastructure, as it will have been installed with the support of the software providers. With this in mind, we must be particularly careful with any changes made to the infrastructure, which is where this document and its outcomes can help.

A document detailing a corporate approach to change management and reporting was approved by the Digital Transformation programme board for Infrastructure and Architecture, work is now underway to ensure this cornerstone of good organisational IT management is introduced across the Council.

7.2   IVANTI – Service Desk tool

An IT service desk is the brain of the department, where instructions, commands and problems are routed through to ensure the right response is given. Using a piece of software that has been specially configured for this purpose is crucial to the success of the service desk and an existing tool in IVANTI is being reconfigured to accommodate more of the ITIL best practice methodology.

7.3   New IT Strategy

A new IT strategy is being drafted which explains how the department plan to use ITIL methodology to organise and manage the department and service offering. As above systems Administration and Change Management Control will need to be reviewed to support the new strategy.

7.4   Move to the Cloud

A trend has evolved over the past several years for organisations to move their IT infrastructure to "cloud" based solutions. Without going into complex detail, this can be a suitable and preferable solution for many services but for others is not the right way to go. Over the coming year(s), the department will support Shropshire Council as a whole to define the most suitable solutions for moving to the cloud.

It is worth noting that many of our services are already "cloud based", with more moving that way through digital transformation. Services such as our website hosting are suitable to be cloud based as the benefits outweigh the issues; but other

solutions are better hosted on site, and the team will support the organisation to make these decisions. This will require different skill sets, we plan to use the apprenticeship Levy to upskill our workforce.

7.5   Infrastructure and Architecture (I&A)

As previously mentioned, the IT department are working on and support the I&A strand of Digital Transformation. This work will see the department transform some of their services and methods of functioning in order to be more commercial.

7.6   Central Applications team

Beyond the life of the Digital Transformation Programme (DTP) there is an opportunity to merge several currently separate teams, all offering support for different pieces of software, into a single team. This single team would offer support for all the separate pieces of software but with staff learning two or more pieces, rather than specialising in a single solution. This will require organisation change and no decisions have yet been made in this regard.

7.7   Being Commercial

As a department, we have many Unique Selling Points (USP's) which have a commercial benefit for instance,
- Developing new tools – through Digital Transformation we are looking to deliver new and innovative tools for communicating with residents and businesses, which could be used by partner organisations;
- Marketing our services, either with new websites (ict.Shropshire.gov.uk for example) or with events – we are now marketing and cross promoting our own and Council offered services.
- Being as efficient and effective as possible, being solution focussed and outcome driven.

Another important area of work is our link with the regional Sustainability and Transformation Partnerships (STP). As a department, we are gearing our service up to fulfil some of this work and have representatives at many of the streams of work to ensure any opportunities can be utilised.

7.8   Offer to Schools

The department has worked with schools for many years but if we are to compete in the academy marketplace we need to do things differently. Our service is being improved, our newly developed, Schools Managed Service (SMS) will be introduced fully in September to nine schools. If the SMS is a success, it should become an extremely attractive commercial offering, ensuring Shropshire Council are well placed to attract new business and keep existing contracts.

8.0   Digital Transformation Programme

8.1   The DTP will be reported on separately to the committee but it is important to recognise that Shropshire IT is now much more integrated with and integral to the Programme.

9.0   Operational and Strategic Risk Assessment

9   The risk profile has improved significantly over the past year, most notably in the strategic risk

   "Failure of existing ICT provision (infrastructure, systems, services and support) could result in significant impact on service delivery and disruption to business activities."

This risk is now a medium and the risk level should decrease further as further on-going work is completed.

9.2   Our risk exposure has reduced significantly throughout the project. When the project started there were 29 risks, 19 of which were high. There are currently 16 risks, 5 high, 4 medium, 4 low and 3 very low. 2 high risks were added to the register in June.

9.3   In addition, Risk Management have reduced one of their operational risks "Ineffective Business Continuity Plan in place, maintained and up to date, results in an inability to respond effectively during a business interruption." As a direct result of the implementation of many of the elements of the ICT DR/BC project plan and the confidence they have in the work undertaken to date. Whilst the likelihood score has remained the same, the impact score has been reduced.

10.0   Conclusions

10.1   Now that Shropshire IT has a clear focus, with robust management structures we are seeing levels of improvement that are exponentially better than envisaged a year ago. This report gives the highlights of the huge amount of work that has been undertaken in a relatively short space of time. The most recent audits and follow up audits are starting to provide validation of the management view that improvement is really happening. These improvements should be credited to the hard work of each of the teams.

10.2   There still big improvements to be made and a shift from reasonable audit outcomes to good is now more than an aspiration. Resources particularly with DTP remain a challenge but confidence of success if high.

List of Background Papers (This MUST be completed for all reports, but does not include items containing exempt or confidential information)

None

Cabinet Member (Portfolio Holder)
Steve Charmley

Local Member
Conflicts of interest declared by members
Appendices Appendix 1 – Adoption of ITIL Appendix 2 DR/BC Project Summary