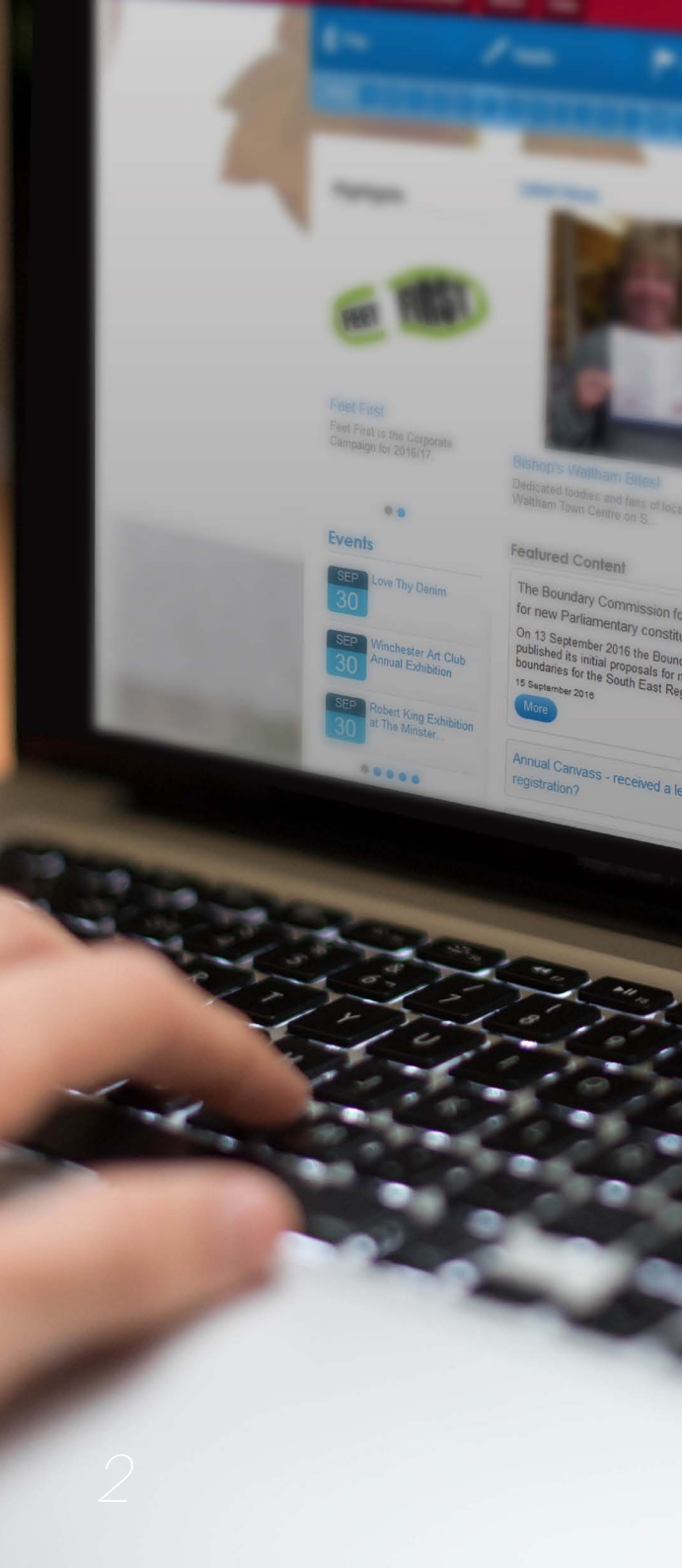


IT STRATEGY 2016-2019





INTRODUCTION

The IT Strategy covers the period from 2016 to 2019. It sets out how the shared IT service will provide both Winchester City Council and Test Valley Borough Council with the secure and sustainable IT infrastructure required in order to be able to offer services which are agile, innovative and have the customer at the core.

The Strategy fully supports and underpins Winchester City Council's Customer Access Strategy and Test Valley Borough Council's Digital Transformation Strategy. It has been written following extensive consultation with services across both councils and has been shaped by the IT Shared Service Board.

The Strategy provides a framework which sets out how the IT infrastructure needs of both councils will be met over the three year period. It will ensure that the IT shared service is positioned to respond appropriately to the emerging needs of both councils, guide investment decisions and ensure that mutual benefit is maintained.

BACKGROUND:

THE JOURNEY, HOW WE'VE GOT TO THIS POINT

In 2010, Test Valley Borough Council and Winchester City Council agreed to form a shared IT service. The four principle reasons to enter into a shared service arrangement were to make financial savings, increase resilience, maximise skilled resources and deliver strategic benefits. Following its inception, the IT shared service produced an initial strategy for the period 2012 to 2015 and has delivered three major outcomes:

1 *Significant savings to revenue and capital budgets.*

This is as a result of utilising resources between partners, reducing staffing levels by deleting vacant posts, sharing platforms and consolidating infrastructure to reduce operational support effort, licensing and maintenance costs. Asset refresh funding has also reduced by 35% at each authority.

2 *Improved resilience and service performance.*

As a result of new technologies, both data centres have the ability to deliver live services and offer greater resilience to both councils. This has enhanced service provision with better performance, availability and resilience without the need to incur further costs or purchase additional hardware. It means that in the event of a catastrophic failure, for example, each data centre has the capability to provide services to both councils. Recorded incidents logged with Service Desk have steadily reduced over the course of the shared service since its inception.

3 *Shared platform opportunities have enabled financial and operational benefits.*

A shared platform to support the infrastructure layer has improved resilience, availability of systems and reduced the support overhead. In addition to infrastructure layer, the application layer also supports opportunities to build shared systems. Where both councils have historically utilised systems and software from the same suppliers, it is sensible to consider consolidation and rationalisation of hardware and support to benefit the partnership. This will not necessarily save licence costs as each partner would still need to be licensed individually, but savings could be significant by reducing the hardware and support requirement.

STRATEGIC CONTEXT

The shared design principles that guide the delivery of the strategy

- Simplicity by design.
- Build it once, use it many times.
- Right solution at the right time – we do not wish to be pioneers of the untried and untested.
- Sustainable, supportable and secure.
- High availability, high performance network.
- A platform that can adapt and flex to the business requirement.
- Proportional investment based on the requirements of each partner.

The strategic influences that will impact the IT infrastructure requirements of both councils include:

- enabling the ongoing digitisation of services to improve customer access and delivery. This will be driven by each council's aspirations as set out in the Digital Transformation Strategy (TVBC) and Customer Access Strategy (WCC)
- equipping a workforce which is digital, mobile and flexible by default in order to facilitate better ways of working. This will increase the demand for IT technology and infrastructure that is appropriate, supportable and sustainable
- responding to the emergence of new technologies such as cloud. Being open to innovation but developing our knowledge and understanding of what benefits can be achieved
- meeting the operational needs of the business through a high access, high performing platform
- managing security standards and compliance requirements through the PSN Code of Compliance and planning for future changes
- being open to new opportunities and delivering value for money within a challenging financial environment. Explore where partnerships can be developed that can bring benefit to the partnership and maintain a focus on efficiency and saving money.

The strategy therefore needs to be positioned to respond appropriately to these influences.

FINANCING THE DELIVERY OF THE PLAN

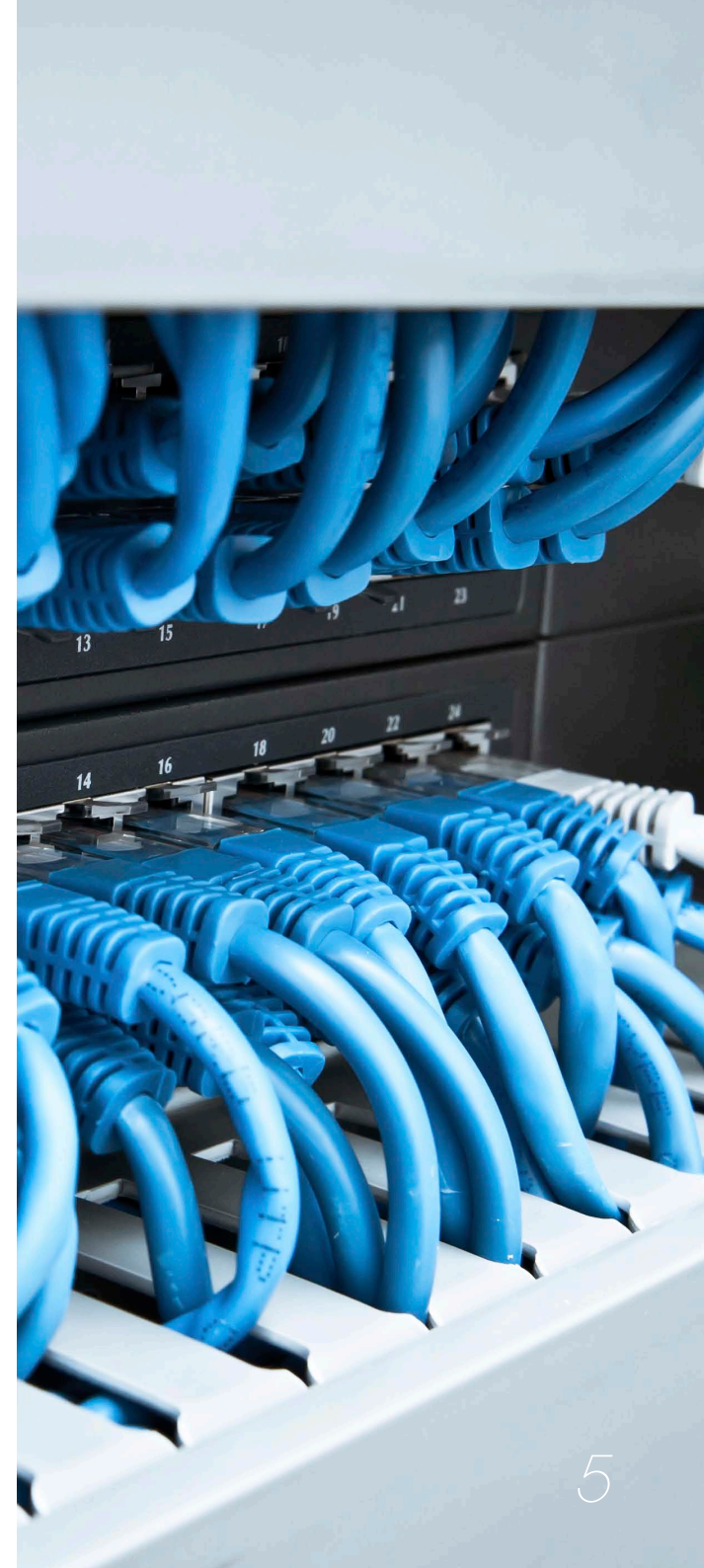
The strategy sets the direction of travel for the IT Shared Service. Underpinning this is a technical roadmap which provides the detailed schedule for the five year lifecycle of assets which informs an annual funding requirement.

Both councils will then draw down funding from their respective Asset Management Plans to meet the annual requirement as part of business as usual activity managed by the Head of IT.

Where new opportunities emerge during the life of the strategy, a business case will be prepared setting out the opportunities and potential benefits. The Shared Service Board will sense check any business cases and ensure they are aligned with the strategic direction of travel. If the board is happy that these conditions have been satisfied, then a business case for investment will go forward to each council to consider in line with its own governance and decision making process.

Having a shared IT platform does not require both partners to have the same systems and devices. However, joint procurement will take place where it makes business sense.

The shared service works on the founding principle that the partners pay their fair share. Where a benefit is equal the share each partner pays will also be equal. Where there is a difference, the partner with the greater benefit will bear a larger proportion of the cost.





TECHNICAL REQUIREMENTS FOR THE NEXT THREE YEARS:

In responding to the strategic influences outlined earlier, the strategy looks at both the infrastructure and application requirements for the shared service for the next three years.

INFRASTRUCTURE

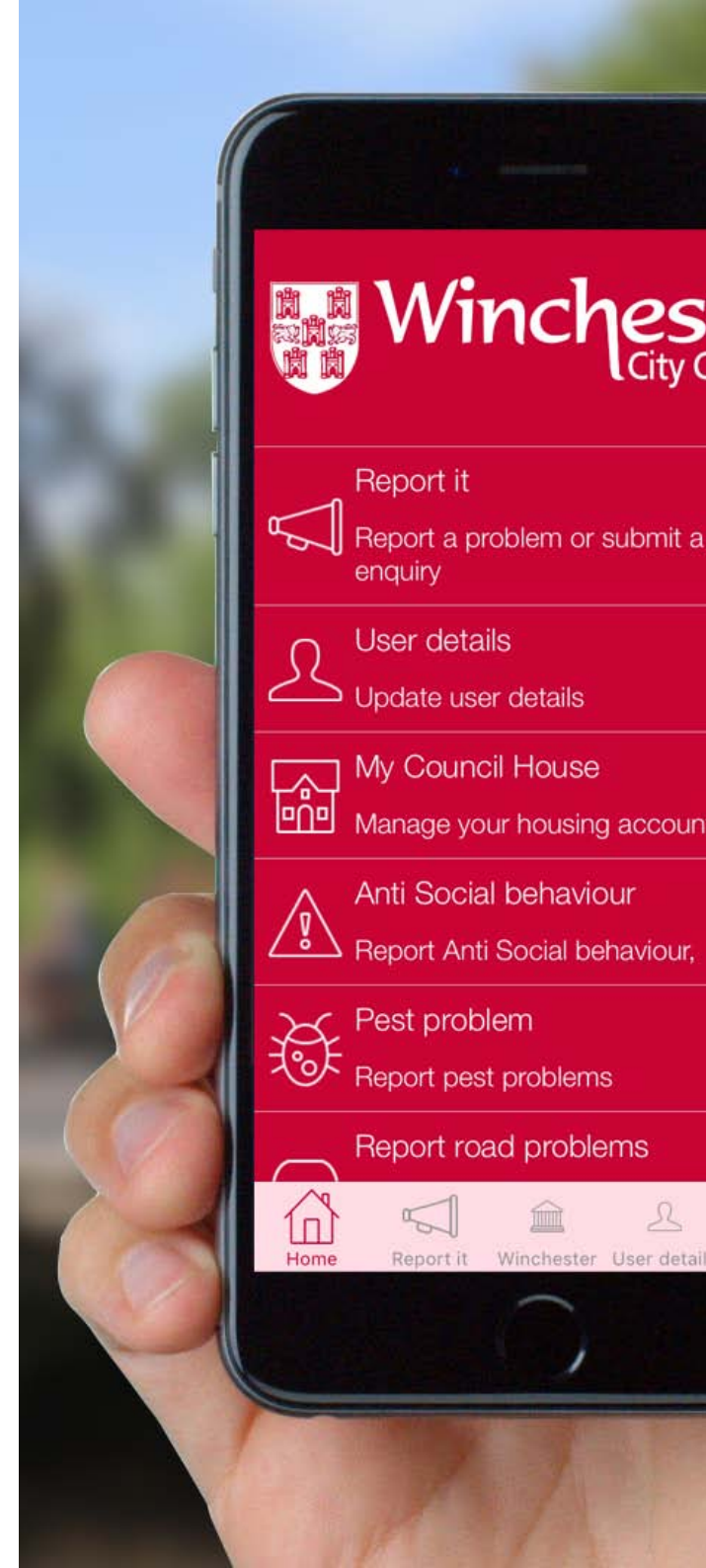
The principle focus of our infrastructure requirements is to deliver a flexible platform, which:

- can be supported by staff with a wide mix of skills
- does not lock either council into any technology or supplier which then precludes them from exploiting wider opportunities
- can take advantage of opportunities that new technical developments present if appropriate to the needs of the business.

Key Actions 2016-19:

- Review the technical roadmap on an annual basis which will be used by the IT service as a schedule for deployment and upgrading technical solutions.
- Maintain a fully staffed and ITIL trained Service Desk, ensuring first line business support.

- Achieve a unified communications toolset offering audio and video conferencing, presence awareness, instant messaging and a simplified user interface.
- Design and field test a suite of mobile and remote devices to best fit requirements of both councils.
- Deliver printing facilities through centralised MFD (Multi Function Devices) printers at strategic locations on each office floor.
- Ensure that all IT assets are recorded and registered in conjunction with the chronological lifecycle to ensure that assets remain fit for purpose and feed into the capital requirements process of both councils.
- Deliver fit for purpose data centres, able to act as hosting centres in readiness to exploit future partnership opportunities.
- Continue to meet the requirements and standards of the PSN Code of Compliance.
- Consider further options to improve resilience through a disaster recovery/business continuity model.
- Develop a hybrid model to exploit cloud-based opportunities that present themselves while retaining a largely on site IT operation.



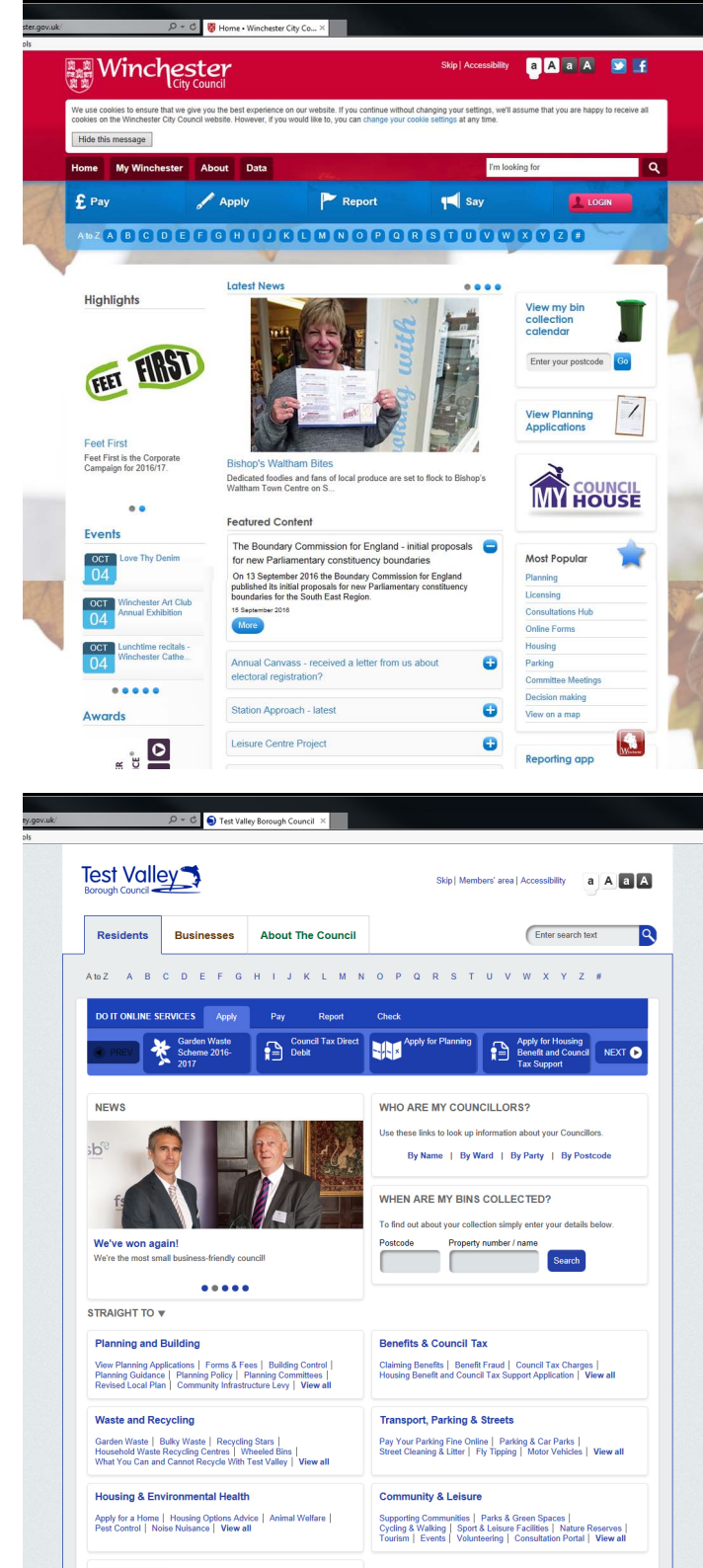
APPLICATIONS

The principle focus of our applications requirements over the next three years is to:

- provide a comprehensive plan for reviewing applications
- promote common applications across both councils where there is a clear business case to do so
- minimise the number of software suppliers where possible.

Key Actions 2016-19:

- Deliver applications that are relevant and fit for purpose meeting the business requirements of each council.
- Deliver applications that will be suited to mobility and better ways of working.
- Enhance internet / mobile self-service applications to allow ease of use and flexibility for customers.
- Deliver training and further development of IT staff so they have the correct skills and competencies to support and utilise the technologies deployed by both councils.
- Migrate applications to a standard database engine where possible.
- Review common applications to provide the most cost-effective delivery in line with the business requirements.
- Consider the business case for options and potential strategies for utilising cloud hosted technology.



1. APPENDIX 1 – DELIVERY PLAN

Below is a detailed plan of the short, medium and long-term actions that will form the delivery of the strategy.

Infrastructure

ELEMENT	SHORT-TERM (2016/17)	MEDIUM-TERM (2017/18)	LONG-TERM (2018 AND BEYOND)
Data Centres (Server Rooms)	<ul style="list-style-type: none"> Shutdown old WCC city offices server room Continue the move to virtual servers (target 80%) Continue the move to virtual appliances where PSN allows Room based UPS (UPS Power) to remain strategic 	<ul style="list-style-type: none"> Continue to improve quality Further hosting opportunities Develop 'Green' opportunities where viable 	<ul style="list-style-type: none"> Move towards Primary / Secondary model Reduce footprint / free rack space Opportunist cloud services to free up further in-house capacity (hybrid model)
Storage	<ul style="list-style-type: none"> Nimble SAN is strategic for tier 1/2 Dell EqualLogic repurposed for tier 3 remains strategic Increase storage, adding 45Tb per site 	<ul style="list-style-type: none"> Hosting requirements to be considered Cache controller upgrade Wider use of SSD storage 	<ul style="list-style-type: none"> Sell hosting capacity HCI considerations – more modular storage
Servers	<ul style="list-style-type: none"> Decommission the remaining Server 2003 servers Strategy is to introduce only 2012 servers Server 2008 remains strategic in the short-term 	<ul style="list-style-type: none"> Plan for Server 2012 domain and server estate Review multi-application hosting Review blade chassis at the time of the next Citrix replacement and consider HCI 	<ul style="list-style-type: none"> Remove Server 2008 Look to HCI as the standard solution Continue to deploy the latest Microsoft server version
Virtualisation	<ul style="list-style-type: none"> VMware (vSphere, vCentre & SRM) is strategic Upgrade to V6 Virtualisation 80% target 	<ul style="list-style-type: none"> Version upgrade or new hypervisor Further use of SRM 	<ul style="list-style-type: none"> Continue to consider market options with any changes in storage direction
Active Directory Authentication and design	<ul style="list-style-type: none"> Microsoft Active Directory (AD) remains strategic Single Sign-on requirement – AD integration as standard 	<ul style="list-style-type: none"> Domain version upgrade to 2012 Expansion of ITSS domain as required ADFS (federated services) for external / cloud authentication 	<ul style="list-style-type: none"> Continue to develop the domain model and use ADFS to provide consistent off-site authentication
Disaster Recovery	<ul style="list-style-type: none"> SRM is strategic Snap shots / active-active replication DR plan – BCP WCC up to date but TVBC WIP ArcServe backup to remain strategic Tape backup via Overland remains strategic but use of tape to be reviewed 	<ul style="list-style-type: none"> Move towards TVBC as primary SAN and WCC as secondary for DR where appropriate Consider the removal of tape backups 	<ul style="list-style-type: none"> Introduce 3rd site / cloud facility for triangulation or a third partner or site to cover for HPSN2 inter-connect failure Consider cloud backup solutions

ELEMENT	SHORT-TERM (2016/17)	MEDIUM-TERM (2017/18)	LONG-TERM (2018 AND BEYOND)
Core LAN	<ul style="list-style-type: none"> • Extreme is strategic • 10gig backbone • Resilient Design now in-place • WCC Upgrade to achieve full resilience being undertaken • Use of Netsight for network monitoring to remain strategic 	<ul style="list-style-type: none"> • Consider hardware road-map and design next generation core • Consider as part of HCI strategy 	<ul style="list-style-type: none"> • Switch replacement
WAN / Internet	<ul style="list-style-type: none"> • Strategic relationship with HPSN2 for inter-site connectivity • Migrate ISP Services away from HCC connectivity • Review Internet provision - Virgin single lines / Improve resilient links • HPSN3 requirements review 	<ul style="list-style-type: none"> • Review SLA on HPSN2, could need to increase from bronze to silver/gold for improved inter-site resilience • Review Internet connectivity in-line with Cloud provision • Upgrade from HPSN2 to HPSN3 	<ul style="list-style-type: none"> • Review Internet connectivity in-line with Cloud provision – almost certain to require more bandwidth and greater resilience
Desktop Devices	<ul style="list-style-type: none"> • Continue move to Thin Client (target 80% for both) • Upgrade Citrix XenApp to 7.x • Windows 7 / RDS 2008 is strategic • WDS gold build development • Review device provision and offer more variety / mobility • Microsoft Office 2010 is strategic including Visio & Project 	<ul style="list-style-type: none"> • Review Office version and compare O365 (cloud) to 2010/13 (on-prem) • Review BYOD capability - Sophos MDM v market leaders • VDI solution for 'power' users; XenDesktop preferred solution 	<ul style="list-style-type: none"> • Move desktop O/S to Windows 10 / Server 2012 RDS
Edge Switching	<ul style="list-style-type: none"> • Extreme is strategic • 1Gbps to the desktop is the standard • Connectivity to remain resilient through design • Maintenance contract to continue with networks partner 	<ul style="list-style-type: none"> • WCC Upgrade required to meet standards 	<ul style="list-style-type: none"> • Switch hardware replacement programme
Wireless	<ul style="list-style-type: none"> • Demand for enterprise Wi-Fi needs to be considered • Potential to decrease office space usage through more Wi-Fi coverage • The public Wi-Fi in-place should be simplified to maximise use 	<ul style="list-style-type: none"> • Add firewalling for corp/public segregation • Current Draytec AP / Switch approach to be replaced by Fortinet / AP after trial 	<ul style="list-style-type: none"> • Review suitability of wireless networks across the estate

ELEMENT	SHORT-TERM (2016/17)	MEDIUM-TERM (2017/18)	LONG-TERM (2018 AND BEYOND)
Remote Working	<ul style="list-style-type: none"> Optimise the Remote Access solution and 2FA for increased pattern home working Improved mobile device offering Strategic solution is Thin via Citrix NetScaler SafeNet 2FA remains strategic for authentication 	<ul style="list-style-type: none"> Enable 50% of staff to work at home on any single day – WCC in particular Upgrade NetScaler to Virtual appliance 	<ul style="list-style-type: none"> Switch replacement
Printing services	<ul style="list-style-type: none"> The MFD Contract with Ricoh remains strategic Annual leasing of devices needs to be compared to outright purchase There is a need to review and remove Fax capability where possible Follow Me solution at TVBC now implemented to match WCC 	<ul style="list-style-type: none"> Reduce printing is a strategic 'green' goal Need to review and replace centralised printing service as capability increases with MFD 	<ul style="list-style-type: none"> Reduce printing facilities to a minimum
Fixed	<ul style="list-style-type: none"> Continue with ShoreTel VoIP telephony solution as strategic Develop the system to reflect demand Implement IM / presence awareness, trial in IT Review the use of ISDN30 (BT/Virgin) for delivery of external calls 	<ul style="list-style-type: none"> IM deployment Deploy a SIP solution for DDI; savings to be realised Test telephony DR 	<ul style="list-style-type: none"> Review handset capability Review new switch options such as Microsoft Lync
Mobile	<ul style="list-style-type: none"> Review BES strategy and consider alternative MDM offerings Review the demand for more corporate smartphones v BYOD Standardisation of models to reduce support costs (Samsung tablets adopted as standard) Review application requirements Align support models across the partnership 	<ul style="list-style-type: none"> Review mobile contract to provide data pooling and new devices Corporate handset refresh BYOD for Members 	<ul style="list-style-type: none"> Wide adoption of BYOD
PSN CoCo	<ul style="list-style-type: none"> Continue to meet the quarterly and annual requirements through the use of external partnerships 	<ul style="list-style-type: none"> Consider likely CoCo enhancements and plan for the future Look at aspects of ISO 27001 and be proactive with data storage requirements 	<ul style="list-style-type: none"> Meet advanced security requirements and improve data labelling
Device Encryption	<ul style="list-style-type: none"> Laptops – HW TPM & Sophos managed 	<ul style="list-style-type: none"> Investigate move to BitLocker with Win10 	

ELEMENT	SHORT-TERM (2016/17)	MEDIUM-TERM (2017/18)	LONG-TERM (2018 AND BEYOND)
Anti-Virus	<ul style="list-style-type: none"> • Single solution • Desktop Sophos • Server Sophos 	<ul style="list-style-type: none"> • Review all products 	
Mail Filtering	<ul style="list-style-type: none"> • TVBC strategic Topsec • Hosted Websense for WCC • Migrate WCC to Topsec 	<ul style="list-style-type: none"> • Investigate Cloud solutions 	
Web Filtering	<ul style="list-style-type: none"> • Sophos is strategic for the partnership • Trial Fortinet UTM as a cost effective replacement 	<ul style="list-style-type: none"> • Investigate Cloud solutions 	
Firewalling	<ul style="list-style-type: none"> • Fortinet is strategic across the partnership • Fortinet can provide a single solution as it is a UTM device - IDS could therefore be considered as a component • All Firewalls to be HA by end of year 	<ul style="list-style-type: none"> • Continue commitment and development of Fortinet as a UTM 	<ul style="list-style-type: none"> • Update devices as required by product roadmap
DMZ	<ul style="list-style-type: none"> • Redesign for improved DR • WCC virtual DMZ to be completed • Virtual migration to take place particularly at TVBC where more physical devices exist 	<ul style="list-style-type: none"> • Design cross-site fail-over model • Fully Licence for vSphere to provide cross site resilience and fail-over 	<ul style="list-style-type: none"> • Single DMZ and cloud backup
Patching	<ul style="list-style-type: none"> • WSUS provides a Microsoft only strategic solution – manual for servers but patches applied by WSUS • WSUS is strategic for both desktop and server • Consider the need to patch all software (including non-Microsoft) review possible products 	<ul style="list-style-type: none"> • Fully Automated patching • Migration away from WSUS to multi-software patching facility 	
PSN network	<ul style="list-style-type: none"> • Current design including walled garden and corporate device (mainly) needs reviewing • Non-corp devices can connect to non IL3 data • Data retention / labelling – mail meter – retention policy to improve 	<ul style="list-style-type: none"> • County is strategic in the provision of network security (ISP) through the HPSN2 PSN compliant services • G-Cloud hosted solutions to be reviewed 	<ul style="list-style-type: none"> • Wider use of PSN connectivity as required by service delivery

ELEMENT	SHORT-TERM (2016/17)	MEDIUM-TERM (2017/18)	LONG-TERM (2018 AND BEYOND)
Microsoft	<ul style="list-style-type: none"> With the ESA now in-place, a roadmap to achieve best value through deployment is required. Determine the best strategy for owned licences, add to ESA or continue with current versions. 	<ul style="list-style-type: none"> Optimise expenditure on licencing Review licencing cover for compliance purposes 	<ul style="list-style-type: none"> Review ESA ahead of renewal.
Other	<ul style="list-style-type: none"> See Application strategy for Line of Business software licencing 		
Exchange	<ul style="list-style-type: none"> Exchange 2010 is strategic 	<ul style="list-style-type: none"> Upgrade to Exchange 2013 	
File store management	<ul style="list-style-type: none"> Storage limits; little in place, policy for Mail only. Down to departments to cleanse data MailMeter to remain strategic for Exchange Consolidation Retention SharePoint migration 	<ul style="list-style-type: none"> Investigate a data retention solution 	<ul style="list-style-type: none"> Deploy a data retention solution
Database	<ul style="list-style-type: none"> Enterprise SQL 2008 	<ul style="list-style-type: none"> Version review 	<ul style="list-style-type: none"> Consolidation
Internet Browser	<ul style="list-style-type: none"> Explorer 11 is strategic 	<ul style="list-style-type: none"> Upgrade browser in-line with desktop O/S 	<ul style="list-style-type: none"> Upgrade browser in-line with desktop O/S
Server Desk and change control	<ul style="list-style-type: none"> Richmond is currently used but is due a review; consider enterprise solution 	<ul style="list-style-type: none"> Deploy a self-serve solution with integrated inventory and FAQ database 	<ul style="list-style-type: none"> Improve change control processes
Inventory	<ul style="list-style-type: none"> There is a lack of dedicated inventory system. Should be deployed and integrated with the service desk 		

Applications

ELEMENT	SHORT-TERM (2016/17)	MEDIUM-TERM (2017/18)	LONG-TERM (2018 AND BEYOND)
Cloud / Hosted Applications	<ul style="list-style-type: none"> Review the ability to move all major applications to PaaS or AaaS. Consider on a business case basis tactical cloud offerings. Consult within the organisation on Opex v Capex and the appetite for likely medium-term costs associated with a cloud strategy 	<ul style="list-style-type: none"> Review what other local authorities are doing Review supplier rental model for signs of trends 	<ul style="list-style-type: none"> Consider a comprehensive cloud solution within the next IT Strategy
Application Review	<ul style="list-style-type: none"> Review applications that are different over the two sites with a view to obtain a preferred application Investigate a new financial system Orchard Housing System – look at using software from a current supplier 	<ul style="list-style-type: none"> Review Oracle applications delivery Review the support and maintenance arrangements for the same applications over the two sites Move to SharePoint 2013 	<ul style="list-style-type: none"> Investigate hosted solutions for applications Review the SQL estate for future upgrading
Databases	<ul style="list-style-type: none"> Continue to migrate applications to SQL 2008 	<ul style="list-style-type: none"> Create a new SQL 2012 Server Review the Oracle estate 	<ul style="list-style-type: none"> Migrate (as applications become compliant) databases to SQL 2012 Decommission SQL 2008
IT Staff Training	<ul style="list-style-type: none"> Update DBAs skills for the move to SQL 2012 	<ul style="list-style-type: none"> SharePoint 2013 training (in preparation for the upgrading of SharePoint) Review the qualifications of DBAs in relation to the provision of services for external organisations 	<ul style="list-style-type: none"> Continue to review the skill requirements of the IT Applications team