Key Decision Required:	Yes	In the Forward Plan:	Yes

CABINET

6 SEPTEMBER 2013

JOINT REPORT OF FINANCE AND ASSET MANAGEMENT PORTFOLIO HOLDER AND PLANNING AND CORPORATE SERVICES PORTFOLIO HOLDER

A.9   COUNCIL IT INFRASTRUCTURE STRATEGIC INVESTMENT
(Report prepared by John Higgins and Judy Barker)

PART 1 – KEY INFORMATION

PURPOSE OF THE REPORT

To seek approval for major strategic investment in the Council's IT infrastructure and services

EXECUTIVE SUMMARY

This report and the recommended investment in much needed IT improvements fundamentally seeks to achieve 4 goals, as follows:

1. To provide a fit-for-purpose, reliable IT supporting infrastructure that enables the Council to deliver its statutory services to residents efficiently without major service failure e.g. maintaining connectivity with the central government Department of Works and Pensions to pay housing benefit accurately and quickly.

2. To improve services to residents and visitors through using IT as an enabler to make services faster, more professional and more readily available.

3. To directly generate savings and to facilitate future office consolidation plans through more modern working practices (hot-desking, mobile and home working) again, further reducing operating costs.

4. To enhance IT security to strengthen the protection of sensitive and personal resident data that the Council holds so that it can deliver statutory services whilst improving operational access to data.

Against a financial backdrop of reducing central government funding the Council is working to reduce its operating costs, whilst improving services to residents.

Additionally, the Council has been tasked with undertaking costly security improvements in order to maintain its connectivity with central government departments through the new National Public Services Network (PSN).

Instead of being a service enabler, the Council's aging IT infrastructure is operating well beyond its 5 year design life and is increasingly becoming a major service limiting factor, increasingly prone to faults and failure.

This report recommends that Cabinet consider much needed strategic investment in the Council's IT infrastructure over the next 3 years, as an enabler to generating further

performance and efficiency improvements.

The Council is reviewing its office and building usage and overall office space requirements, and has well developed discussions with Essex County Council to deliver much needed Tendring resident service improvements through a joint public services Civic Hub operating a 'One Front Door' ethos. The proposed IT investments will facilitate future office space reduction projects, allow the Council to more easily interface our services with public sector colleagues including future joint-service provision, and directly support customer service improvements.

The report seeks approval for a total IT strategic programme investment of £1,496,000 (including 10% project contingencies) comprising:

- ➤ £995,000 one-off capital investment from the 'Fit For Purpose' budget.
- ➤ £144,000 carried forward from 2012/13 IT capital budgets.
- ➤ £357,000 IT revenue and capital budget contributions over 3 years (2013-2016).

The investment will:

- ✓ Replace aging network infrastructure and data storage to ensure that the Council has a robust, reliable, fit-for-purpose supporting data network infrastructure.

- ✓ Standardise/ modernise our hardware and software which will generate ongoing net cost savings estimated at over £75,000 per annum with opportunities for further savings generated by each Council department as they exploit new IT services and benefits and re-engineer current business processes and drive down costs further.

- ✓ Implement much needed performance improvements for frustrated system users; residents, visitors, members and officers.

- ✓ Provide flexible working and support more modern working practices; hot-desking, home and mobile working where these are appropriate.

- ✓ Enable a wider corporate roll-out of Electronic Document Record Management facilities with reduced office space requirements partly through reduced physical paper storage (estimated at 20% total accommodation utilisation).

- ✓ Enhance the Council's professional image and customer service response through a range of service enhancing technologies, for example;

  a) Corporate document scanning/ storage/ retrieval - giving rapid access to electronically stored documentation.
  b) A replacement 'status-based' communications system (Microsoft Lync) giving instant visibility of other officer's availability to assist in complex enquiries. Note: Essex County Council roll-out nearing completion.
  c) Future wide use of video calling between officers, with members (who have the capability) and directly with residents who either have the capability, are at video-enabled partner locations or even using Council district-wide kiosks.

A summary table of each proposal is included as appendix A to this report.

From a procurement perspective, given that we have existing support and maintenance and partnership development contracts in place, the report recommends predominantly

using existing Official Journal of the European Union (OJEU) contracts e.g. Liberata and BT, together with the Council's own procurement rules and having first investigated/ proven value for money. New supply and maintenance contracts will be awarded as normal. The procurement proposals have been scrutinized/ approved by the Council's Finance and Procurement Manager.

The report's IT product and services recommendations are based upon an extensive period of discussion, IT architecture/ product analysis and expert advice with the Council's IT support partner Liberata.

RECOMMENDATION(S)

a) **That Cabinet approves the strategic IT investment programme totalling £1,496,000 as set out in appendix A to be funded by:**

➤ **£995,000 one-off capital investment from the 'Fit For Purpose' budget.**
➤ **£144,000 carried forward from 2012/13 IT capital budgets.**
➤ **£357,000 IT revenue and capital budget contributions over 3 years (2013-2016).**

b) **Subject to 'a' above, £300,000 one-off capital funding be made available with immediate effect to fund the commencement of the programme with the remainder being allocated as part of the Financial Strategy.**

c) **That the programming of works be delegated to the Corporate Director (Corporate Services) in consultation with the Portfolio Holder for Planning and Corporate Services.**

d) **That the Corporate Director (Corporate Services), in consultation with the Portfolio Holder for Planning and Corporate Services, is authorised to grant such exemptions under the Council's Procurement Rules as he considers appropriate and reasonably necessary in order to secure value for money and the delivery of the IT investment programme.**

PART 2 – IMPLICATIONS OF THE DECISION

DELIVERING PRIORITIES

The strategic IT investments proposed embody the Council's stated aims of providing excellent and sustainable services that make best use of public money and are joined up, together with improving the reputation of the Council.

The proposed improvements will stimulate further innovation, flexible and professional modern ways of working, and will provide real benefits to the people of Tendring.

A number of the projects within the proposed programme of works will directly reduce the Council's consumption of power and the overall programme will have a direct effect upon reducing the Council's carbon footprint.

FINANCE, OTHER RESOURCES AND RISK

Finance and other resources

The report seeks approval for a total IT strategic programme investment of £1,496,000 (including 10% project contingencies) comprising:

- £995,000 one-off capital investment from the 'Fit For Purpose' budget.
- £144,000 carried forward from 2012/13 IT capital budgets.
- £357,000 IT revenue and capital budget contributions over 3 years (2013-2016).

The IT investments will generate net cost savings estimated at over £75,000 per annum with further savings arising from the investments generated by each Council department as they exploit new IT services and benefits and re-engineer current business processes and drive down their operating costs further.

Risk

- The network infrastructure's performance is deteriorating and the data traffic traversing it is increasing and further performance (congestion) issues or a catastrophic failure causing significant loss of service is increasingly likely. This can only be mitigated through significant Cisco switch replacement, as outlined.

- Until a clear decision is reached as to the delivery of the joint public services Civic Hub project and whether to sell or retain Weeley offices this report proposes not to invest £25,000 in replacement of the Weeley infrastructure when their services are supported through the Town Hall infrastructure and therefore suffer from the same key network issues. The risk of local switch failure can be mitigated through retaining a stock of Cisco maintenance spares removed from Clacton and prioritising key Weeley staff to receive new laptops and new Virtual Desktop Infrastructure (VDI) service enabling staff to work from any location in the event of a failure. Once a decision has been made regarding the Civic Hub proposal the investment programme can be adjusted accordingly.

- The Council's IT infrastructure is unnecessarily complex as it has evolved 'piece-meal' over the past 10 years. During the modernisation/ standardisation there are likely to be some unexpected outages which will require resolution. The risk of failures will be reduced through careful planning and testing and taking an incremental approach.

- The proposed budgets fund the external resources necessary to deliver the IT investment programme, including where appropriate 'train the trainer' training. However, to maximise the benefits associated with the Electronic Document Record Management System (EDRMS) project the Council will need to apply document retention policy decisions and undertake paper record 'back scanning'. As a result of restructure/ service reviews, the Council nolonger has readily available resources to commit to this work so additional one-off costs may need to be met. The planned report to members regarding the proposals for office rationalisation will include an indication of the likely one off costs associated with getting this work carried out.

LEGAL

The procurement proposals comply with European Union (OJEU) legislation will be carried out in accordance with the Council's procurement rules and procedures. Given the range

of procurement demands a programme procurement log will be maintained.

OTHER IMPLICATIONS
Consideration has been given to the implications of the proposed decision in respect of the following and any significant issues are set out below. **Crime and Disorder / Equality and Diversity / Health Inequalities / Area or Ward affected / Consultation/Public Engagement.**

PART 3 – SUPPORTING INFORMATION

BACKGROUND

1. <u>Investment In Core Infrastructure:</u>
The Council periodically undertakes major IT infrastructure investment to achieve corporate strategic goals or to modernise IT business critical supporting infrastructure. For example, in 2003/4 the Council invested circa £800,000 (less a £400,000 Department of Works and Pensions [DWP] modernisation grant) in modernising and converging its corporate telephony and data network supporting infrastructure along with implementing Electronic Document Record Management (EDRM) and a Revenues and Benefits service specific contact centre. At that time, the replacement voice and data network infrastructure investment was around £220,000.

Over time, many core components of the Council's IT infrastructure; network and structure, data storage, telephony, personal computing, software licensing etc. have become outdated or have been built up piece-meal whereby the Council's supporting IT infrastructure has many **old increasingly obsolete key components**, is overly complicated (or in some cases too simplistic), and is increasingly costly and difficult to support, update and maintain.

It is not unreasonable to say that - **Instead of being a service enabler the Council's aging IT infrastructure is increasingly becoming a major service limiting factor and is overdue radical modernisation and investment in order to facilitate modern, efficient and professional working practices** – the affordable excellent services that our residents and visitors deserve and increasingly expect.

2. <u>Maintained Investment Focus On Some 'Best in Class' Products:</u>
Many of our business support systems are in excellent order through ongoing IT investment, for example, the Council has invested in ongoing updates of the Northgate system that supports Revenues and Benefits and Housing services, ongoing investment in the CAPS UNI-Form system that supports a range of services including; Planning, Development and Building Control, Licensing, Asset Management and Environmental Health services together with a limited roll-out of IDOX Electronic Document Record Management (EDRM) covering some of the above mentioned services. That said, all of these are supported/ served by the ageing infrastructure.

3. <u>The Need For Ongoing Operating Cost Reductions/ Savings:</u>
With ever decreasing central government funding, the Council has already undertaken significant staff reductions and service reviews and restructures in order to become leaner and provide more efficient, effective services that residents demand. If this ethos is to continue further, and accelerate, then there is a need for considerable IT infrastructure modernisation investment to enable modern working practices including; flexible working hot desking, mobile working and home working where appropriate.

It is widely understood that having easy access to all of the necessary data and information electronically will generate improvements in respect of; future cost savings through operational efficiencies, service improvements, physical office space reduction, enhancing the Council's reputation for professionalism,

4. Joined-Up Public Sector Service Initiatives – The Civic Hub:

In addition, talks have been ongoing with Essex County Council and other partners to create seamless public services together with the potential of creating a 'One Front Door' Civic Hub. All of which is possible but will require significant IT investment to bring Tendring District Council in line with some of the 'best of breed' products that Essex County Council are already deploying. It should however be noted that the investment technology choices have been made based upon the 4 Tendring District Council key IT investment principles of:

1. Fit for purpose supporting infrastructure to deliver statutory services.
2. Improved services for residents and visitors.
3. Generating savings and efficiencies.
4. Enhancing security and further protecting sensitive and personal data.

5. Strategic IT Investment Proposals:

Appendix A to this report contains a table outlining the proposed IT modernisation investment proposals together with their benefits.

A separate private and confidential report elsewhere on the agenda for the meeting includes an expanded *Appendix A* that additionally identifies; capital investment cost and ongoing revenue costs from quotations received, estimated savings generated and procurement proposals.

A number of the proposals recommended have been based around specialist IT consultancy provided by our IT partner service provider Liberata, based upon their detailed knowledge of our existing services and local processes together with wider knowledge of the sector.

Some of the proposals e.g. Electronic Document Record Management System (EDRMS) are based upon investment in already adopted/ procured 'best in class' products purchased with a view to corporate roll-out and already integrated with our corporate systems i.e. Northgate (Life Opportunities - Revenues and Benefits, Housing) and CAPS UNI-Form (Public Experience, Corporate and Planning – Licensing, Environmental services, Development and Building Control, Asset Management etc.)

Some of the proposals are based upon replacement of existing tried and tested 'best in class' products with their modern counterparts i.e. Cisco switches supporting the core network infrastructure.

The proposals have originated as a result of the Liberata produced IT Strategic Investment Roadmap (SIR) document - a separate 90 page technical document developed with our IT Support partners through extensive discussion and architecture/ product and service analysis. The document is not included with this report but is available on request.

CURRENT POSITION

The Council's IT infrastructure should be considered in the context of being business critical in supporting member, officer and residents' data and services on a daily basis. A fair appraisal of the Councils' key supporting IT infrastructure is that it is a mix of:

- ➢ Historical infrastructure that is becoming unfit for purpose or is well beyond its design life-span **(and thereby a growing risk to business continuity)** e.g. the 2003/4 Cisco network infrastructure design and core switches are now 10 years old and the majority of the switches are now outside of Cisco maintenance support. The initial design was specified with a 5 year lifespan.

- ➢ Ageing base components that have been accumulated over time with small scale trial deployments expanded year on year to support corporate solutions, for example, the Council has a server estate comprising 128 individual business critical servers (mostly over 5 years old) but in increasing need of replacement. The proposal therefore includes a consolidation/ virtualisation regime to reduce this figure by around 50%.

- ➢ Historically developed engineering solutions have, over time, created over-complex hardware and software inter-dependencies and inter-working issues that are difficult or unnecessarily costly to maintain and repair/ fault find/ support and update and increasingly uneconomical to run and manage.

- ➢ A 'flat' network design that treats all systems and services the same regardless of security/ sensitivity needs – resulting in overly prescriptive central government defined security measures and working practices imposed on everyone (Members and officers) rather than being sensitivity/ task/ process specific.

- ➢ Overly complex personal computing arrangements for officers many of whom have desktop PCs and telephones, many additionally have laptop machines and mobiles – the result of which is overly complex inter-working and security issues and expensive support costs. The programme includes infrastructure and software standardisation/ simplification which will drive down costs.

As previously mentioned, not all of our systems are 'creaking', but as a simple demonstration of what can potentially be achieved corporately, the Corporate Services IT Team has used modest investment to commence trials of the Virtual Desktop Imaging ([VDI) software that added to newly purchased laptops enables officers to work remotely with a 'single view' of their IT systems i.e. they have full access to the same systems and services regardless of where they are working. This modest trial has limited licenses/ users etc. so the service cannot be expanded further without additional investment (*please see Appendix A Citrix Remote Working investment proposal*)

PROCUREMENT PROPOSALS

The proposed IT infrastructure investment modernisation combines services and products with an aggregated value of over £1.49 million.

6. OJEU Procurement Regulations:
Public procurements in the UK have to comply with the relevant principles of the EU Treaty, and contracts with a value above certain thresholds are subject to EU procedural rules, for example where they have a value exceeding £173,934 for supplies and/ or services.

- ➢ **Only the bulk purchase Desktop and Laptop replacement proposal (£340,000) exceeds the OJEU threshold so procurement must comply with EU regulations.**

The multiple IT procurement proposals outlined below are complex, business support critical and are all interconnected physically and interface at a software/ application level. As stated previously, only one procurement exceeds the OJEU threshold and must (and will) comply with OJEU procurement regulations. All of the other procurement proposals fall within the control of the Council.

> ➢ **As a general principle we will seek open competitive pricing tender wherever possible/ appropriate.**

To ensure the strategic IT investment programme is successfully delivered in a timely manner, the report recommends that the Director (Corporate Services), in consultation with the Portfolio Holder for Planning and Corporate Services, is authorised to grant such exemptions under the Council's Procurement Rules as he/she considers appropriate and reasonably necessary.

7. <u>Procurement With Liberata (Core Infrastructure/ Software Upgrades):</u>
A number of the products and services proposed are recommended to be procured through our existing IT Support provider Liberata with whom we have an ongoing partnership IT Supplier contract until April 2016.

The Liberata contract was procured in full compliance with European negotiated procedure rules including advertisement in the Official Journal of the European Union (OJEU) in April 2003 described as:

"Providing Information and Communications Technology services, including support, maintenance and management of operational services, Information Technology training throughout the Council and assistance with the development of new electronic government service delivery applications and the provision of strategic ICT advice and guidance. The Council seeks to implement an improvement plan for its information and communications technology and seeks a private sector partner to assist it to reshape its investment in ICT, and to work with the Council to develop and implement cost effective ICT services. "

Additionally, the OJEU Invitation To Tender (ITT) shared will all respondees describes:

The Council is seeking to establish a partnership-style working arrangement in respect of the new agreement for ICT and Related Services. It is not seeking to enter into a formalised partnership agreement, but is looking to develop a relationship whereby it can draw upon the skills and expertise of the successful Bidder to assist and support the Council in the achievement of its Electronic Service Delivery plans. The successful Bidder will be expected to bring about improvement to ICT Services at less cost by securing economies of scale and reducing the number and complexity of business processes. The Successful Bidder will need to bring to the partnership the latest thinking in technology and service provision including a comprehensive knowledge and experience of Electronic Service Delivery and development within the local government arena. The Council envisages that the successful Bidder will work with them in a long term relationship based on trust and working together towards the delivery of common goals, rather than the traditional customer/supplier relationship. The Council intends to progressively introduce electronic government services to enhance participation in, and access to, local and national services for the people of the District. … . The impact of the Council's e-Government programme will involve a radical transformation in the way services are delivered to local people.

Liberata employ 6 full-time staff locally.

In January 2011 five Essex authorities worked together to soft market test their existing contract costs to establish the most advantageous procurement options. Tendring's

contract compared very favourably with both the existing contract costs and the indicative costs submitted by the market test participants, which included all of the incumbent suppliers and resulted in Cabinet recommending extending the IT Support contract with Liberata to the maximum time allowed.

Annual benchmarking across a range of key performance indicators and a June 2013 comparison of chargeable day rates with the Essex partner contractor (Capita) continues to demonstrate that the Council's current contract represents excellent value for money and quality.

In recommending a number of procurements with Liberata (see Appendix A) as a nominated contractor the following considerations are made:

1. The ongoing Council's IT Services contract with Liberata is fully OJEU compliant.
2. From a probity perspective the OJEU documentation describes a long term partnership arrangement enabling delivery of electronic delivery plans and services.
3. 24/7 business service continuity is critical for the duration of the contract (2 ½ years).
4. Value for money and service quality has been benchmarked/ tested on a number of occasions.
5. The need for in-depth integration understanding and knowledge of existing systems and Council processes.
6. Standardisation and simplification of our suite of products/ licensing to Microsoft products where possible for seamless pre-integration with the Microsoft products already in use.

The Liberata support contract expires in 2016 and the investment programme will have the overall effect of reducing quotation costs in any new contract tender.

7. **Procurement With BT (Core Network Upgrades):**
The Council has tendered critical infrastructure design, delivery and support on 2 recent previous occasions with BT winning the tender each time. The original Cisco-based converged data and telephony network solution was procured in 2003/4 through an existing OJEU compliant UK government framework competitive tender process. The current five year network reactive support and maintenance contract was procured through the Essex Online Partnership competitive procurement through UK Government OJEU compliant framework catalogue.

The network refresh BT quotation hardware/ services split (excluding Weeley upgrade) is less than the OJEU thresholds so Tendring's procurement rules can be applied.

A value for money benchmarking exercise has been completed against the new Essex County Council OJEU awarded Next Generation Network provider's open book catalogue prices and BT's benchmarked quotation offers good value for money – all BT hardware prices demonstrate a 10%+ saving. Tendring District Council was named within this tender so we can call down on this contract when required and are already doing so for our Public Services Network (PSN) connectivity requirements.

Whilst BT is a global company the engineer who invariable maintains our network lives in Colchester.

Whilst this contract is due to expire in March 2014, there is an urgent need to modernise our network to maintain business continuity as the switches time expired their Cisco

manufacturer's maintenance support in July this year and key components are already over 10 years old. To novate the contract and re-tender at this time would require the Council to pay BT costs of approximately £15,000 (subject to negotiation).

BT's minimum support and maintenance term is 12 months so it is proposed to procure the network replacement proposal through BT and extend the contract for a 12 month period. During this time it is proposed to tender openly for a replacement telephony solution (Microsoft Lync) and the awarded contract will run Microsoft Lync alongside our existing Cisco telephone system as a hybrid system during the ongoing roll-out period with the winning bidder subsuming support and maintenance for both the replacement Cisco data network and Microsoft Lync (telephony) after the 12 month BT contract extension period.

The rationale for procuring through BT is based upon:

1. Business critical service continuity 24/7.
2. The need for in-depth local knowledge of our existing networks and office consolidation aspirations.
3. BT are an accredited 'Platinum' Cisco partner so are able to offer excellent value for money on hardware due to their 'buying power'.
4. The need for ongoing, seamless support and maintenance for the duration of the contract.

8. Procurement With ID0X (EDRMS):

IDOX provide the Council's existing 'best in class' Electronic Document Record Management System (EDRMS) already used by a number of services (see report Background) so a considerable number of officers are already comfortable with its use and their processes are aligned with the scanning technology.

The IDOX solution was purchased based upon Liberata consultants' recommendations in a Benefits and Realisation study for Planning Services in 2006 with E-government external funding having undertaken a review of available solutions and with aspirations for corporate roll-out and a paperless environment - agreed by Cabinet in January 2006.

The solution is already integrated with the Council's primary corporate databases - Northgate and CAPS UNI-Form.

Again, the value of the recommended procurement is significantly below OJEU thresholds and the existing procurement has proven the abilities of the product. In addition, the Council is separately investigating a range of products to achieve process improvements with its Freedom of Information searches, electronic redaction and data protection initiatives and the IDOX EDMS product meets all of these requirements. A corporate roll-out would enable automatic Freedom Of Information (FOI) searches of all electronically stored records.

The rationale for procuring through IDOX is based upon:

1. Business critical service continuity 24/7.
2. The existing and extensive product usage verses the complexity and cost of further integration associated with a new product.
3. IDOX existing local Tendring and local government specialist knowledge.
4. An ethos of standardisation and simplification.

9. Procurement Using the OJEU Compliant Essex Online Partnership Hardware Framework Agreement or Other Government Framework Agreements Plus Major

Supplier Direct Quotation:
Purchasing new user laptops and thin client 'dumb terminals' is by far the largest single capital cost with an indicative estimate of £340,000 subject to final departmental calculations of numbers required and bulk purchase negotiations.

With considerations to quality and reliability it is proposed that once standard hardware specifications are established, the IT department will trawl available local government framework pricing agreements and seek quotations directly with manufacturers (e.g. HP, Dell, Lenovo, Acer, Toshiba) , to achieve maximum value for money through bulk purchase arrangements. A single bulk purchase will also implement further build standardisation.

10. Open Tender Proposals:
As previously mentioned, as a general principle we will seek open competitive pricing tenders wherever possible/ appropriate.

For example, the Microsoft Lync replacement telephony proposals will require integration with our existing Cisco systems initially and then ongoing during the corporate roll-out. Whilst the work is specialist in nature it is proposed that this element be tendered openly from its commencement along with the renewal of support and maintenance responsibilities for our data network once the existing BT contract expires.

OTHER CONSIDERATIONS

11. Hosted Cloud Services
Over the last 2-3 years the latest and greatest IT evolution is that of 'Cloud Services' i.e. either receiving services via applications provided by a 3rd party from a UK data centre using a 'hosted environment' or, increasingly, outsourcing services and data storage to a UK data centre. Services and applications are provided either across the internet or through dedicated private links.

The Cloud Services business case rationale is based around the premise that from a business start-up perspective there is no requirement to build/ equip your own computer suite with resilient power arrangements, environment handling e.g. cooling, security, fire precautions etc. nor do you have to buy multiple servers to store data and run applications nor employ support staff etc. Instead, the Cloud Services provider hosts your data and applications within a multi-customer shared environment that they equip/ run. Their charges are therefore based upon their operational costs shared across multiple customers (based on number of servers hosted), a pay-per-service usage element, maintenance response regime etc. plus profit.

> ➢ **Hosted Cloud Services shift Capital expenditure to operational (revenue) expenditure.**

The Council already uses some 'minor' hosted solutions, for example; crematorium software, theatre booking system and does have its own purpose built computer suite environment but given the recommended investment in new/ replacement hardware it is appropriate that this solution should be considered as an alternate methodology.

It should be noted that in order for Tendring to move towards a major hosted implementation we need to first, in any event, undertake the server estate virtualisation/ consolidation and software standardisation process recommended as part of investment proposal (*please see Appendix A*).

Having researched the pros and cons both with Liberata, and independently, it is not recommended that Tendring District Council launches itself into large scale, major business critical systems outsourced to a hosted environment for the following reasons:

➢ The Council has already invested in a secure, environmentally managed computer suite with good power resilience etc.
➢ We are contractually tied to Liberata until March 2016 for support services etc.
➢ The hosted Cloud Services environment market is still relatively immature and large scale transfer still represents a risk which from a local authority perspective is primarily based around the security and the secure transfer of data. To achieve this would require secure data links which are chargeable based upon both capacity and distance i.e. this has significant additional cost implications for us until the PSN and the Essex NGN evolves further over the next few years.
➢ Cloud hosted services pricing model has relatively small scale capital investment e.g. cost of links etc. but have significant/ inflated revenue costs so over time you pay more and as the market is still relatively immature these costs are currently high. Given the Council's contractual positions, its established environmentally controlled computer suite and infrastructure investment commitments, wholesale cloud services simply don't currently cost in.
➢ Nationally, local authorities and large established private companies are predominantly adopting the same Tendring model of some hosted services where large data hosting is not necessary i.e. application-based but rightly reviewed during large infrastructure investments, during the contract(s) renewal process.
➢ As a general principle we are waiting for the market to become more competitive, but additionally, from a public sector perspective, we are waiting for reduced connection costs through the delivery of the PSN.
➢ From a local economic perspective Liberata employ 2 fte locally to manage our server estate and there are no large scale hosting operators based locally.
➢ The consortium of Essex authorities – the Essex On Line Partnership (EOLP) – that Tendring belongs to is exploring the possibilities of a future Essex Cloud service e.g. non-profit hosting currently initially focussed on disaster recovery to reduce member costs.

Tendring's server estate, once virtualised/ consolidated down from 128 servers to around 60 with standardised software will then be ready for Cloud Services. As the market matures and competition reduces costs together with an established PSN offering low cost, secure UK-wide connectivity will become increasingly attractive in a further 2-5 years. Conversely, by then we may have already signed up to a reduced cost Essex Cloud.

12. Future Technologies (Tablets/ Windows 8/ Wireless Improvements)

This report specifically recommends the purchase of a mix of business quality laptops and either 'Thin Client' terminals or 'Zero Client' (Dumb Terminals) for staff.

It does however assume that during the next 3 years (the period of this programme) there will undoubtedly be a continued shift towards officers and members increasingly moving towards the use of a range of mobile devices (Blackberry Tablets/ Android Tablets and i-Pads), notably when interfaces with Microsoft 8 (and subsequent releases) become more freely available/ reliable and the Microsoft office suite can be more readily and easily used within these environments. In addition, the current offerings will need to more fully evolve their levels of data/ device encryption and security to meet modern business (and Whitehall) requirements. As competition matures further, the prices will drop and they will become increasingly cost effective.

From a member perspective in particular, in addition to considerable improvements in performance and speed, the programme includes much needed investment in a replacement wireless infrastructure to better serve flexible working including a segregated member only wireless network. This concept is based upon the ethos that segregation will reduce the impact of Whitehall security edits - as far as is possible – that, in a segregated environment, need not impact members as they do not use or require access to sensitive information.

BACKGROUND PAPERS FOR THE DECISION
Liberata Strategic Investment Report

APPENDICES
Appendix A: Strategic Investment Roadmap

Appendix A: Strategic Investment Roadmap

No	Description	Business Driver and Benefit explanation
1	Data Storage - Storage Area Network (SAN) Replacement	2 x new 'dual working' high performance, scalable data storage arrays to meet data storage needs plus new data compression software (de-duplication) . **Benefits;** Cost Avoidance (Future Requirements), simplicity, standardisation, single scalable storage solution.
2	Voice and Data Network Refresh/ Enhancements	Existing Cisco switched network is 10 years old, Cisco support time-expired and is struggling to cope with significantly higher data volumes than its 5 year projected design-life i.e. performance is increasingly causing user frustrations and service outages . New design and wholesale switch replacement will remove multiple single points of failure and create a 'fit for purpose' resilient Council voice and data network. **Benefits:** efficiency through faster access to applications & data for all users, minimal loss of service, new service enabler e.g. video calling/ conferencing.
3	Corporate IDOX Electronic Documents Record Management System (ERDMS)	Extend existing IDOX supplied Electronic Document Records Management system corporately so that electronic records are readily available to users through automated searches. **Benefits;** performance/efficiency/ customer service improvements, Council enhanced professional image, automated Freedom Of Information (FOI) enquiries of all electronically stored records, corporate standardised electronic redaction, estimated 20% reduction in office space requirements occupied by paper records. Corporate savings subject to individual departments re-engineering service delivery e.g. establishment of a single corporate 'incoming paper' scanning team. Indicative efficiency savings identified equate to 2 x grade 1 admin fte corporately
4	Corporate Microsoft Lync 'Unified Communications' replacement for existing Cisco telephony.	Replacement of 10 year old Cisco aging telephony solution with new Microsoft 'converged communications' product. **Benefits;** software standardisation, all communication channels (corporate telephony, voice-mail, e-mail, new video/ conference calling services converged and potentially on single device e.g. laptop. New employee 'status' (availability) visible to all users & corporate 'follow me' mobile/ home working communications all generating efficiency, professional image, flexible working & customer service improvements.
5	Hosting LAN Zoning & Inner Firewalls	Zoning the Council's applications/ data storage infrastructure to create new 'ultra-secure' sensitive data areas and protect access to central government. New Whitehall security requirement/ improvement to remain compliant with central government new Public Services Network (PSN) for DWP Housing Benefit connectivity, Individual Electoral Registration, GCSx secure e-mail with partners etc. **Benefits:** Segregation(s) improve network security and enhance protection of sensitive Council data, segregation also reduces compliance requirements for wider Council 'non sensitive' data users.

6	Windows 7 Migration	Microsoft operating system software upgrade required to new vendor supported platform. Note: Liberata have Microsoft 8 'in test' but not yet supported by some corporate systems. **Benefits;** software standardisation & support simplification, future proofing.
7	Office 2010 Migration	Microsoft Office desktop applications upgrade required to Vendor Supported Platform. **Benefits;** as above
8	Desktop/Laptop Refresh	Bulk purchase replacement of existing PCs and Laptops with new personal equipment e.g. Laptops and 'thin Clients' (dumb terminals). **Benefits;** technology upgrade, bulk purchase assists future IT financial replacement forecasting, improved 'faster' IT equipment for users, supports modern working practices i.e. home working, hot-desking, mobile working etc. Saving based upon reduced support costs of removing just 87 PCs from users with both a PC and a laptop.
9	Printer Consolidation	On-going IT team led printer reduction project to rationalise/ reduce printer numbers in use. Management Board and Leader cultural change drive to reduce overall 'need to print' thereby reducing costs. **Benefits;** reduced support and consumables costs. Saving based upon a 50% reduction 32% achieved to date.
10	Active Directory 2008 Migration	Directory service (users) used to manage IT environment e.g. permissions and application access. Upgrade required to later vendor supported platform. **Benefits;** future proofing (supported to 2020) and software standardisation.
11	vSphere 5.1 Platform (Virtualisation)	Liberata recommended VMWare software product used to manage a 'virtualised server environment' where multiple programs/ applications are run across multiple servers to maximise the benefits (operating costs) associated with multiple server environments. **Benefits;** facilitates server virtualisation program reducing server count from 128 to estimated 68, power and support cost savings (see consolidation/ virtualisation below).
12	Exchange 2010 Migration	Upgrade required to Vendor Supported Platform
13	SQL & NAS Consolidation To Reduce Server Numbers	Physical server numbers will be reduced. **Benefits;** savings in support costs, power, maintenance and licensing, design/ support simplicity and standardisation.
14	Server Virtualisation Migration	Virtualisation is where multiple applications are loaded/ run across multiple but fewer servers. **Benefits;** maximise ROI and reduce costs. Physical server numbers will be reduced resulting in savings in support costs, power, maintenance and licensing, simplicity, standardisation. Reduced future support costs (2016 IT support contract renewal/ tender).
15	Infrastructure Roles (DNS/DHCP) resilience at Barnes House	Domain Name System (DNS) provides fundamental infrastructure management associating user friendly device names with IP addresses for application connectivity. Dynamic Host Configuration Protocol (DHCP) is how applications/ servers talk to each other/ connect. Associated with Active Directory upgrade. **Benefits;** Improved support efficiencies, standardisation an additional controller adds resilience.

16	VMWare View/Citrix XenApp	Market leading replacement Virtual Desktop Infrastructure (VDI) technology allowing a user a 'single view' of their applications and network permissions/ access from any device or location. **Benefits;** Citrix software essentially supports hot-desking/ home working/ mobile working etc. benefiting from enhanced security (used by ECC) - performance improvements, cost savings, simplicity, standardisation, customer service benefits of mobile working, performance/ efficiencies of home working, user lifestyle flexibility.
17		Costs associated with Thin/Zero client devices are lower than PCs & Laptops, therefore additional spend will be avoided in the future.
18	Application Virtualisation (APP-V)	Microsoft Virtual Desktop Infrastructure - transforms applications into centrally managed services. **Benefits; Facilitates centralised application management** e.g. centrally controlled faster software deployment and upgrade. See VDI benefits identified previously.
19	Backup Solution	Replacement data backup solution. **Benefits;** reduced power, maintenance and licensing costs.
20	Bolden James Message Classification Software	Whitehall GCSx/PSN security classification requirement. The software allows users to classify and label e-mail and attachments to protect information supported by handling rules in accordance with information policies e.g. it will stop certain e-mail classifications (restricted/ protected/ classified etc.) from being forwarded externally to prevent improper use/ handling or loss of sensitive data. **Benefits;** compliance with Whitehall security policies, sensitive data protection, enforces information policies, raises user awareness of the need for secure data handling, encryption, sensitivity visibility.
21	Disaster Recovery	Disaster Recovery data loss protection enhancement necessary in a new Virtualised environment. **Benefits;** data loss protection & service continuity during disaster situation. Note: May be subsumed or replaced by Essex Online Partnership (EOLP) 'Essex Cloud' disaster recovery project.
22	Encryption software replacement - Microsoft BitLocker	Migration from separately chargeable Checkpoint encryption software to Microsoft Bitlocker provided under existing Microsoft Licensing agreement. **Benefits;** cost avoidance, simplicity, software standardisation, security. Maintenance of CheckPoint (PointSec) will be avoided in the future
23	ClearSwift Remediation	Web and e-mail security filtering software - security requirement.
24	Anti-Virus Replacement	Replacement of existing Ant-virus software. Security Requirement (Final Product tba - Sophos quotation included).
25	System Centre Configuration Manager (SCCM) tool.	Microsoft software centralised management tool enabling centrally managed software changes. **Benefits;** Facilitates centralised software management e.g. centrally controlled faster software deployment and upgrade. NOTE: Future software deployment/ support cost savings are already factored into quoted project capital delivery costs wherever appropriate.
26	System Centre Operations Manager (SCOM)	SCOM provides pro-active server estate management e.g. generates alerts when pre-determined criteria are reached. **Benefits;** Pro-active/ enhanced management of server estate with performance alerts.

27	SolarWinds Software (Network Monitoring Tool)	Pro-active network management solution. Small cost saving associated with the release of TDC owned license. (amount unknown)
28	Power Management (SCCM)	Cost Saving, Simplicity. Cost saving based on reduced power costs, reducing support by 1 server - see SCCM costs
29	Disaster Recovery (Essex Cloud Online Partnership project).	Business Protection, Service Availability – potential for significant savings (25% indicative estimate) through 'Essex Cloud' EOLP partnership initiative
30	Replacement Wireless network including segregated Member LAN	New replacement Wireless network segregated (Whitehall security requirement) for network security reasons. Replacement design will include a corporate network, a guest network and a new Member network to allow 'Bring Your Own Device' (Whitehall security requirement). **Benefits;** re-provision of existing service to major office locations, enhanced security but moderated to reflect different user access levels to sensitive information, future customer service benefits e.g. wireless enabled technology for 'floor walkers' in new civic hub.