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To: Corporate Policy Overview Committee – 25/01/08

Subject: Information and Communications Technology (ICT) Infrastructure Investment

Classification: Unrestricted

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Summary: A report on the status of current ICT operation, contribution of technology in delivery of the council's strategic objectives, and an update on the ICT medium term investment programme.

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## **1. Operational Status**

### **1.1 Background**

1.1.2 The approach to the development and delivery of ICT services has evolved from an extensive review and restructuring exercise undertaken in 2002/3.

1.1.3 ICT services in 2002/3 had emerged from the multiple departmental ICT units that were combined following local government reorganisation. By 2002/3 the pressing issues had largely been addressed with the successful replacement of discrete departmental units, service desk functions and desktop environments with a single corporate service and standards.

1.1.4 It was recognised that further improvement would most readily be achieved through a radical overhaul of delivery, business model and organisational structures. The subsequent programme to develop professional and efficient ICT services has provided the foundation for the strategic initiatives outlined in this report.

1.1.5 From the outset the objectives for the unit were revised to identify the fundamental shift in the vision and aspirations for ICT.

*“Delivery of significant business change, improvement and focus core strategic units at the centre of the organisation, whilst maintaining excellence in ICT provision, seeing through an ambitious technology programme in a climate of financial constraint. Alongside this seeking and taking opportunities to provide local benefit from our strategic partnerships for people in Kent.”*

1.1.5 Continuing improvement in efficiency targets have been maintained throughout with benchmarking showing year on year improvement and strong

fiscal control of operating costs. Within the context of scale of infrastructure supported, ICT costs are 34% less for 2007/8 than during 2002/3.

1.1.6 Extensive changes invariably impact on the staff group. Morale and staffing strategies were a clear area of focus in recognition of the importance of staff to the process. The successful response to these concerns was demonstrated by the unit achieving recognition through a National “Best Place to Work” award for 2006/7.

1.1.7 The initial objectives established were to introduce a structure based on best practice. Project services having already adopted the Prince methodology the next focal point was the adoption of ITIL (Information technology Infrastructure Library) based service delivery. Subsequent initiatives saw the introduction of an Enterprise Architecture methodology in development of ICT Strategy. As with all local authority change processes efficiency and value for money were and remain key considerations.

## 1.2 Performance

1.2.1 Progress towards the objectives established for the unit is illustrated by the council’s performance and standing in the CIO 100. This is a cross industry ranking of the top 100 users of technology within the UK (that highlights those organisations with ‘extensive, strategic and wide scale use of technology throughout their activities). With profiles considering innovation, value for money and ability to exploit technology, in addition to scale of activity, this allows organisations to improve relative standings over time. Kent’s ranking on this measure has improved year on year from the outset of the change programme, rising 59 positions to the current years ranking of 38 (in terms of relative positioning with some of our Local Government peers – Surrey are 85<sup>th</sup>, West Sussex 67<sup>th</sup>, Essex 62<sup>nd</sup> and Birmingham 58<sup>th</sup>).

1.2.2 Similarly benchmarking against government and industry wide indicators invariably shows the council’s ICT to be well placed against value for money indicators, with unit costs for support and desktop devices consistently being amongst the best performing councils.

1.2.3 Support costs per Workstation

Survey Yr	Shire Counties	Shire Districts	English Unitaries	All	KCC
2002/3	£205	£217	£180	£202	£285
2004/5	£160	£220	£192	£184	£162
2006/7	£170	£251	£229	£193	£134

Source: SOCITM Benchmarking ICT services Annual figures:

1.2.4 The high value for money rating is achieved by careful setting of ICT service priorities with senior managers from service directorates. This has informed the approach that places emphasis on availability of infrastructure, as any disruption in these services would be likely to have an immediate impact on capacity of entire units of directorates to sustain direct service.

1.2.5 Availability for the year to date:

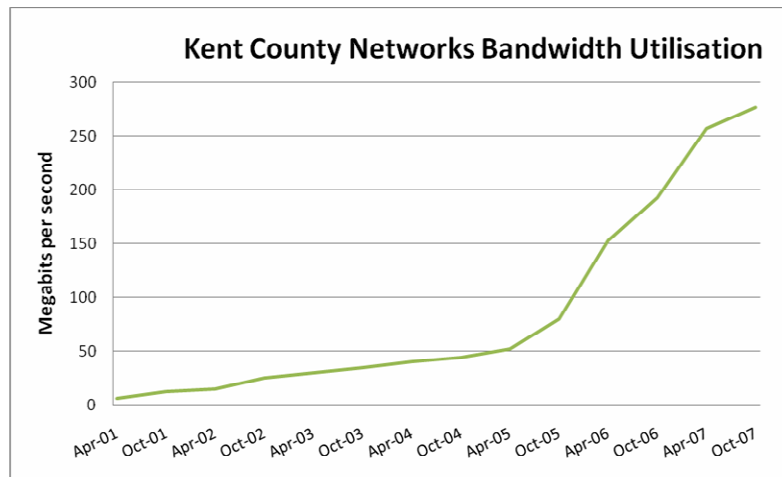
Service	Target Availability	Current period	Year to Date
Devices	99.4%	>99.9%	99.95%
Access	99.0%	99.98%	99.8%
Systems	99.0%	>99.99%	>99.99%

Service is measured against a base of 1.8 million computing hours each month.

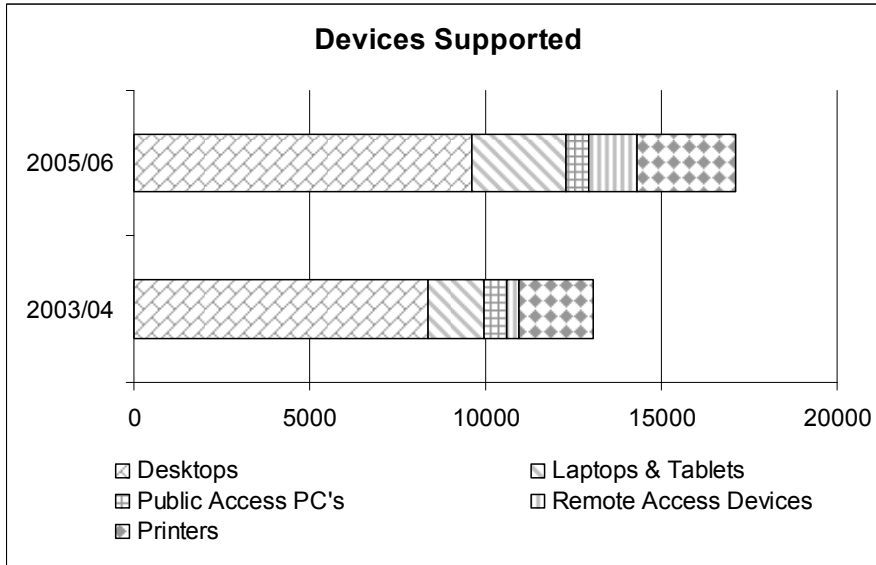
1.2.6 To maintain this level of success alongside strong performance against value for money indicators does inevitably require compromise. This is reflected in support levels and response times for individual users, where reliance is placed on peer support within the work place. With more mobility anticipated, dependence on technology will increase as will the impact of the loss of technology services on the productivity of individual members of staff. It will be important that this issue is reviewed as changes to working practice are developed.

1.2.7 Performance of the councils ICT function is heavily influenced by the rate of change in the use of technology. Use of network capacity, quantity of equipment deployed and supported utilisation of storage and number of email transactions all provides useful evidence of the increasing use of technology in the delivery of service:

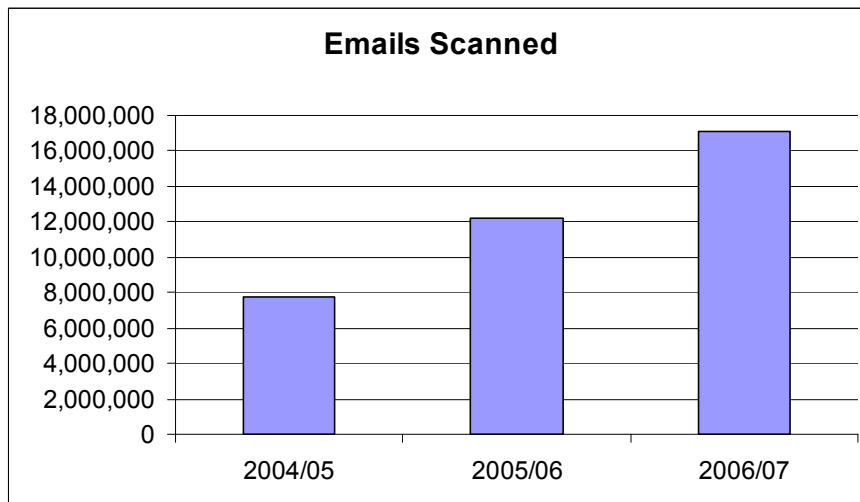
Networks



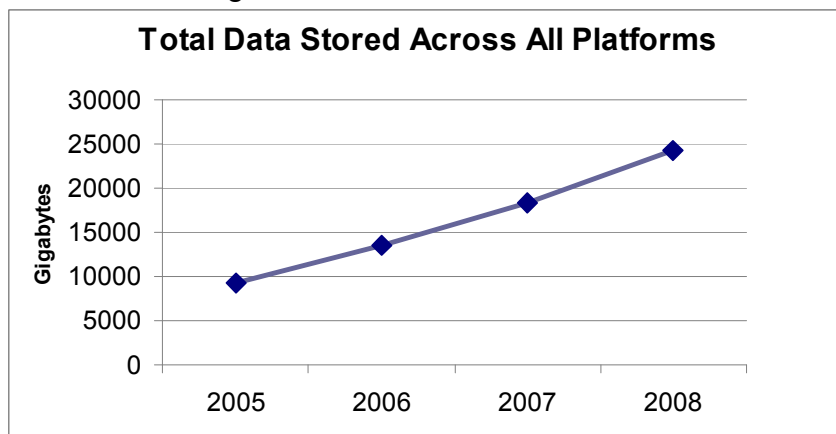
## Devices



## External Email



## Electronic Storage



1.2.8 Efficiency in the deployment and utilisation of ICT is not about a narrow approach to reducing cost, it must also be about deriving increased value

throughout the business from investment in the application of technology to deliver these broader benefits. ICT, in the way it is being currently deployed, is designed to allow the organisation to leverage the expertise of professional staff to maximise the focus at the point of delivery of public services, moving away from rigid hierarchies based around fixed structures and service points/buildings. Full deployment of an ICT infrastructure is an enabler for change in respect of freeing up service managers through greater flexibility and innovation in service 'front-line' activity based around providing them with the right tools for the job:-

- Freeing up professional time for front line specialist staff;
- Flexible working, providing a better work – life balance;
- Automating routine tasks;
- Allowing greater mobility and speed of response.

1.2.9 The scale and extent of the County Council's core operations provide the opportunity to secure added value for both the organisation itself and Kent as a whole through the utilisation of the investment KCC makes in its information and technology systems and networks (and the impact of that on the local environment) as a policy tool to support KCC's core objectives in developing Kent. Examples include successful completion of the Next Four Years target for broadband access – current coverage in excess of 98% of households delivered ahead of the rest of the South East.

### **1.3 Directorate Support**

1.3.1 The enhancement and development of directorate services that make use of technology remains a key aspect of the ICT service. The project portfolio managed by ICT, comprises the major corporate and directorate projects referenced in the annual ICT status report, plus a continuous throughput of medium sized projects initiated by service directorates.

1.3.2 There are currently 42 active projects in the portfolio including:

- Technology element of Kent Highways Programme
- Connection of KCC Network to new NHS N3 national network
- ICT infrastructure for Children's centres
- Integrated Children's Services (ICS) System
- CFE Billing System for Contracted Services

1.3.3 Projects waiting approval include:

- Library Systems Renewal
- Upgrade of call management systems (Telephony)
- KHS Mobile Working Project
- KASS Mobile Working Project
- Replacement of County Planning System

## **2. ICT Strategy**

- 2.1 The council's ICT strategy recognises the requirement for change and the need to build the capability to both innovate and identify new and more effective methods of delivering public services. The essential backdrop to achieving this outcome must be an understanding of the core areas of service where technology will have a substantial impact.
- 2.2 Development of ICT strategy is directly informed by the objectives of the council and the approach to ICT is an integral part of the council's strategy for the delivery of Vision for Kent and Towards 2010 and is supported by the new structures now in place to govern our ICT. The strategy process has enabled us to progress towards outcomes which support our business colleagues and our communities, whilst remaining agile enough to benefit from many of the latest technological advances. The principles behind our strategy are to enable business flexibility and drive up the benefits derived from investment in ICT while reducing cost and risk.
- 2.3 The use of technology to directly benefit and enhance the communities served by the council is now reflected in the medium term planning process and has been embedded as part of the ICT strategy and targets. Opportunities for shared services, and particularly partnerships, form an important part of our IS strategy in terms of how ICT infrastructure might best be aggregated across public services to the benefit of all – a clear example of this is in the work of Kent Connects and the new Kent Public Service Network. KPSN is explained further in Section 3.5.
- 2.4 A further key element in our strategy is responding directly to the requirement to support the agenda for service transformation within KCC, ensuring that our ICT infrastructure and strategy supports the strategies of our various businesses. A crucial part of this is delivering economically viable ICT services. This is underpinned by our determination to deliver transparency of the total cost of ownership of IT systems, and the means to measure these costs against industry benchmarks
- 2.5 This approach was developed in parallel with the strategic thinking represented within 'Towards 2010' and reconciles ICT direction with the targets outlined in 'Towards 2010', 'The Vision for Kent', 'The Kent Agreement' as well as the annual planning process.
- 2.6 The 'Towards 2010' strategy defines 6 basic areas on which the application of ICT must focus:
- (1) Innovation in services, service delivery and new ways of working
  - (2) Capability development
  - (3) Driving Public value
  - (4) Democratic engagement
  - (5) Partnership working and service delivery and accessibility
  - (6) Neighbourhood and community development and engagement

### **3. Key Areas for Investment**

3.1 The 'Towards 2010' priorities are fully reflected within the principle areas for ICT infrastructure investment

#### **3.2 Connecting Kent.**

3.2.1 Building on the successful programme of priming and influencing private sector investment (approximately £34M to date) in Kent's ICT infrastructure

3.2.2 The council's broadband project was initiated in October 2004 to ensure that all 135 Kent exchanges were broadband enabled. The last 3 Kent telephone exchanges were upgraded in spring 2007.

3.2.3 Subsequent activity has focused on pressing telecommunications suppliers to resolve access problems for properties and businesses outside of individual exchange broadband range, so called "not spots". In addition regular review of broadband provision is required to ensure that increasing demand within the community is met.

3.2.4 Having identified major "not spots" through use of data from BT and influenced by direct contact from affected residents and business, a response from suppliers received in December 2007 has identified potential solutions for areas of highest priority, including potential pump-priming grant, of £25-£40K, for a regional pilot of infrastructure upgrade.

#### **3.3 Improving Service Accessibility - Connecting with Kent**

3.3.1 Maintaining and extending the profile and accessibility of the services provided by the council through electronic channels to individual citizens, business, public and private sector partners and voluntary agencies.

3.3.2 As the strategic authority the council has taken on direct support for public agencies with insufficient capacity to develop and sustain their own services, including website development and support for parish council's and voluntary agencies.

3.3.3 A web casting solution for public meetings has been implemented with the service accessed on over 21,181 occasions since its inception.

3.3.4 A collaboration portal to facilitate multi agency working is being built. The proof of concept has been developed in support of the Whole System Demonstrator programme a joint initiative between Department of Health, the council, East Kent PCT and West Kent PCT.

3.3.5 The same project has also made extensive use of the video conference facilities installed in Sessions House. This has avoided the extensive national travel that would have otherwise been required, between the other demonstrator sites in Newham and Cornwall and the Department of Health team based in Leeds. The same resources also contribute to the council's ability to develop and sustain international relationships.

### **3.4 Technology Refresh**

- 3.4.1 The scope of this project is the refresh of the email, file and data hardware and software infrastructure including replacement of 9,000 personal computers.
- 3.4.2 The terms of reference for the project required a solution for infrastructure provision that removes technology constraints and realises vision of technology as an enabler. Continuous renewal of hardware and software environments that avoids creating a dependence on obsolete technology. A flexible approach to allow integration of emerging technologies, enable support of diverse business practice and facilitate technology tailored to individual users. Replace current infrastructure with a cost-effective solution designed to deliver efficiency savings through reduced unit prices and lower support overheads.
- 3.4.3 The programme being implemented delivers a common, core IT infrastructure while incorporating the flexibility for service units to tailor local technology provision to meet specific business needs and objectives. Devices are rented allowing refresh on a three year cycle as well as achieving a 30% saving other previous sourcing methods. Phased implementation, allows maximum return on investment in existing devices and a fixed cost profile able to be aligned with business planning processes. Rollout commenced with the replacement of 151 servers (computers supporting multiple users) including the 12 servers supporting email services, is 66% complete with the initial 3 year cycle due for completion in December 2008.
- 3.4.4 Provision of appropriate computing equipment, matched to business requirement and benefit, has allowed other underlying technologies to be developed in parallel. Initiatives include wireless technologies, secure remote access, Blackberries and internet based access. Availability of these solutions are becoming increasingly critical to the successful implementation of new working practice.

### **3.5 Network Infrastructure**

- 3.5.1 This is the largest single programme within the ICT portfolio.
- 3.5.2 The contracts for all three networks currently managed by the council end between 2008 and 2009. The exponential increase in bandwidth requirements, deregulation of the telecommunications market and the introduction of new national network topologies, make this an ideal time to establish new provision.
- 3.5.3 The existing networks provide the backbone over which all of the council's electronic transactions and communication is carried. There are dedicated links to 360 establishments at which staff are based, 600 further locations on the schools network as well as links to other public agencies in Kent
- 3.5.4 The starting point for the replacement programme is the aggregation of all existing provision to procure a single Kent Public Service Network (KPSN).

All Kent local authorities are participating, as well as Kent Police and Kent Fire and Rescue Services. Canterbury and Thanet councils are intending to incorporate all of their internal network requirements, as well as inter authority connectivity, from the outset. Other authorities will consider this approach as they reach the end of current contract commitments.

3.5.5 The council is now in the final stages of procurement through a competitive dialogue process. The two remaining suppliers submitted best and final offers on 14 January 2008, which are currently being evaluated. Both bids are compliant, capable of acceptance and meet the service objectives of the programme:

- (1) Between ten and fifty fold expansion in bandwidth requirement to meet increasing service demands placed on technology infrastructure.
- (2) A scalable solution capable of expanding in response to unpredictable demands resulting from the development of new technologies and services at reasonable cost.
- (3) Architecture that incorporates and aggregates existing network provision to make maximum use of current infrastructure investment
- (4) Consolidation of council networks, increasing total capacity and ensuring corporate, education and partnership networks merge to deliver consistent and sustainable infrastructure across all services.
- (5) To provide single public service network solution open to participation by all public agencies across Kent.
- (6) Leverage of contractual process to address rural network provision, where there is little or no commercial incentive for private sector investment.
- (7) Capacity to implement feature rich on-line services for both organisational use and public access.
- (8) Implementation of MPLS (Multi-protocol Label Switching) compliant technology to support shared services and inter-agency working.
- (9) Improved potential for partnership working, leading to reduced costs through economies of scale.
- (10) Opportunities for income generation through shared use of public service network from 2009.
- (11) Continued health of Kent's macro economy.

#### **4. Conclusion**

4.1 The combination of the development of professional ICT services informed by directorate service requirements, together with an ICT strategy aligned to business objectives and investment programmes measured against service outcomes is delivering the essential infrastructure to support direct service.

4.2 ICT infrastructure development based on sustainable service based models such as the technology refresh programme and the multi agency approach of the Kent Public Service Network are the building blocks for future service.

4.3 Opportunities for both direct services and organisational development are strongly linked to the potential of technology. Current initiatives range from web casting as means of increasing democratic engagement, an innovation

entirely reliant on the introduction of broadband, to mobile and flexible working necessitating electronic access to central data by staff in the field.

- 4.4 Internal infrastructure investment has been structured to support opportunities for productivity gains and deliver dividends through reduction in office capacity. Contracts and technology is designed to be flexible and to scale in line with future business needs.

## **5. Recommendation**

- 5.1 The Policy Overview Committee Members are asked to note the report.

### Appendix 1 – Restricted: Status Report on Kent Public Service Network (KPSN) Procurement

The annual ICT status report referenced in section 1.3.1 is published in full on KNet. <http://knet2/directorates/chief-executive-s-department/teams-and-units/business-solutions-and-policy/information-services-group-isg/ict-strategy-1>

The “Vision for Kent” and “Towards 2010” are published on the council’s website [www.kent.gov.uk](http://www.kent.gov.uk)

Hardcopy available on request from:

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