

Report to: **Cabinet**

Date: **15 November 2005**

By: **Deputy Chief Executive & Director of Corporate Resources.**

Title of report: **Implementation of the 'Next Generation Network'.**

Purpose of report: **To inform Cabinet of the proposal for the implementation of the Next Generation Voice and Data Network.**

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## **RECOMMENDATION**

**The Cabinet is recommended to approve the proposal for the implementation of the Next Generation Network (NGN) for the County Council (including schools) as a self financing Invest to Save Bid and make a variation to the capital programme accordingly.**

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### **1 Financial Appraisal**

1.1 The Next Generation Network (NGN) requires £4.4m gross capital investment in order to deliver the business benefits identified and reductions in ongoing revenue costs. Funding will be provided from various sources including intranet replacement reserve, Standards Fund Grant 31B, contributions from Schools and invest-to-save through the capital programme.

1.2 The financial appraisal set out in Appendix 1 shows the payback period is about 5 years (minimum savings of £200,000 p.a. will continue after that period). The savings will be top-sliced from current budgets and more than outweigh the cost of financing any associated short term borrowing. Any timing differences will be managed within the Council's overall cash flow. Even after borrowing costs, whole life savings will be at least £400,000. In addition there are significant other efficiencies (see Appendix 3).

### **2 Supporting Information**

2.1 The NGN project was commissioned by the E-Government Steering Group in September 2004. The project is to evaluate and re-design the existing ICT networks to deliver solutions to key business challenges being faced by the authority. Significant technical design work has taken place and a revised network design was presented in April 2005, with monthly updates being presented subsequently. The technical design has since been updated as has a more detailed financial appraisal (Appendix 2 sets out the key design principles)

2.2 The Corporate Data Network currently in use was designed three and half years ago as part of the "Intranet Plan B" project and continues to perform as designed. The organisation has seen changes to its ICT requirements during this time and there have been developments in the areas of voice and data network convergence in the marketplace which could provide significant efficiency benefits to the County Council business. (Appendix 3 provides examples of benefits)

2.3 The main objective of the NGN is to meet new requirements for schools connectivity in the most cost effective way, to ensure the whole authority benefits from the cost savings and technical developments now available, and to identify solutions for current challenges being faced, whilst maximizing benefits from investment in the existing Corporate Network.

2.4 Currently there are three separate ICT networks for Data, Voice and Schools:

- The Corporate Data Network connects 145 sites together and provides access to shared business applications such as File Sharing, Printing, Email, Internet, Intranet and access to applications such as SAP. This network also provides public access to the Peoples Network from Libraries across the county.

- The Corporate Voice Network connects 5 key sites together to share telephone calls between users in County Hall, St Mary's House & St Marks House in Eastbourne, Ringmer Depot and Sackville House in Lewes. The remaining 140 sites have their own standalone phone systems in place.
- The Schools Network is provided by RM and connects all 198 Primary and Secondary schools to the South East Grid for Learning (SEGfL).

### 2.5 Schools Connectivity

The Department for Education and Skills (DfES) state that 2Mbps Broadband connections are to be provided to all Primary Schools in 2005 and 8Mbps to all Secondary Schools in 2006. RM are able to provide these upgraded services through the SEGfL. There would be a significant cost increase to upgrade Schools to the 8Mbps service via RM (options are described in Appendix 4). The Next Generation Network offers a more cost-effective alternative to this route.

### 2.6 County Hall Data Network

In order to ensure business continuity the network at County Hall needs to be replaced. The existing cabling infrastructure was installed over 15 years ago, is becoming slower and less reliable, is prohibitive for deployment of latest technologies and is becoming increasingly difficult to troubleshoot and resolve problems as it is no longer supported by suppliers.

## 3 **Next Generation Network**

3.1 The issues and challenges identified above have been addressed by a technical re-design of the existing corporate data network and by essentially consolidating the 3 separate networks listed above into a single "Next Generation Network". This re-design would enable schools to connect to the network without compromising corporate traffic by providing secure separation of the different traffic types on the same network. A draft project plan is attached as Appendix 5.

3.2 The new network would include the implementation of a new telephone solution for the 5 key sites listed above and will meet the needs of the remaining (up to) 140 sites in the future. The network would provide mechanisms to allow voice traffic to be transported over the same network, reducing the need for dedicated voice infrastructure at every site. Once connected to the new network there is also the possibility of developing the solution further to provide telephone services for Schools at a later date.

3.3 Schools would be connected to the network using the most cost-effective and appropriate connection depending on individual circumstances. Secondary Schools would all be connected to existing core networked sites using methods based on those used for the existing corporate data network. Primary Schools would be connected using either Radio communications or the same method as Secondary schools if a Radio solution is not possible due to the location of the site.

3.4 New cabling would be installed in County Hall to replace the existing network providing faster and more reliable connections to network resources. The majority of the infrastructure investment would be 'portable' given future possible decisions on a new 'HQ'.

## 4 **Conclusion and Reason for Recommendation**

4.1 Delivering increased network bandwidth to Schools offers East Sussex the opportunity to put in place a network which not only meets the immediate requirements for Schools, but provides benefits to other areas of the business and partner organisations across the county. Replacement of the existing Telephone solution would provide significant business benefits and reduce costs across the organisation. Replacement of the County Hall network would ensure business continuity and that support can continue to be provided for the network.

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